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**STRATEGIC TURNAROUND AS CULTURAL REVOLUTION:**

**THE CASE OF CANADIAN NATIONAL EXPRESS**

A Dissertation Presented  
by

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**ABSTRACT**

The history of most large organizations contains periods of turmoil and upheaval which called for, or resulted from, attempts at steering the organization towards new directions and changing its fabric of goals, strategies, structures and values.

Such fundamental changes in an organization's constitution and trajectory have become, for a host of reasons, more frequent and common in the past few years. Unfortunately, the stock of knowledge in the field of policy/strategy, to this day, contains little wisdom and few insights about the formulation and implementation of strategies that are sharply discontinuous with an organization's present course of action.

The purpose of this thesis is to propose some theoretical constructs and offer some empirical evidence about this most complex of phenomenon. From a broad survey of the literature in sociology, anthropology, political science and organization theory, a number of concepts were assembled in a framework for the study of organizations in transition. As "culture" plays an important role in this theoretical framework, the conceptual part of the thesis contains an elaborate discussion of that elusive notion.

The empirical part of the thesis focuses on one particular type of radical change, a turnaround, and one particular organization, the small-parcel division (CN Express) of a large State-owned, diversified, railway company (Canadian National). Given the crucial role of culture in this research, methods had to be devised to assess the culture of an organization, which, in itself, is a major contribution of this thesis.

The detailed study of an organization during a period of radical change has been fertile in insights about the carrying out of cultural revolutions in large organizations: the influence of contingency factors in shaping corporate mind sets; the leader's meta-strategy; the notion of goal culture and structure; the synchronization of cultural and structural change, the role of symbolic and political management; and so on.

This thesis has sought to unite theory and praxis in its prescriptive stance about the tasks of leadership and the challenge of creating better, more fulfilling organizations. To researchers, it offers a blueprint for further studies in the processes of organizational growth, decay and rejuvenation. To any leader confronted with this most demanding of task, the radical transformation of a large social system, this thesis may provide useful guidelines... and some solace!

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RÉSUMÉ

L'histoire des grandes organisations contient presque invariablement des épisodes de bouleversement et de crise. Ces périodes troubles exigent, ou parfois sont le résultat, des efforts pour imprimer à l'organisation une nouvelle direction, pour en changer les buts, stratégies, structures et valeurs.

Pour de multiples raisons, de telles transformations et réorientations majeures sont devenues, semble-t-il, plus fréquentes au cours des dernières années. Cependant, le champ d'étude et de recherche en stratégie et politiques générales ne contient que bien peu de prescriptions et observations à propos de la formulation et de la réalisation de stratégies qui sont en discontinuité marquée avec le cours historique de l'organisation.

L'objet de cette thèse est justement d'offrir un certain nombre de considérations théoriques et empiriques au sujet de ce phénomène complexe. D'une vaste recherche bibliographique dans les domaines de la sociologie, de l'anthropologie, des sciences politique et des théories de l'organisation, des concepts utiles ont été rassemblés et arrangés en un cadre conceptuel pour l'étude d'organisations en transition. Étant donné que la culture occupe une place importante dans ce schéma théorique, la partie conceptuelle de la thèse traite abondamment de cette notion protéiforme.

La partie empirique de la thèse se concentre sur une forme de changement radical, un redressement d'entreprises, et sur une organisation, la



division des petits colis (Les Messageries du CN) d'une grande société d'État diversifiée mais avec une dominante dans le transport ferroviaire de marchandises (le Canadien National).

Puisque la culture occupe une place centrale dans cette étude, des méthodes de recherche appropriées durent être proposées pour l'appréciation de cette notion complexe dans une organisation, ce qui est en soi une contribution importante de cette thèse. L'examen détaillé d'un cas précis de changement radical s'est avéré fertile en découvertes et observations à propos des "révolutions culturelles" dans les organisations complexes: l'influence des facteurs contingents sur le fonctionnement cognitif des membres d'une organisation; le rôle de la "méta-stratégie" du leader; les notions de "buts culturel et structurel"; la synchronisation des changements culturels et structurels; le rôle de la gestion politique et symbolique; et ainsi de suite.

Cette thèse a voulu unir la théorie et la praxis dans un propos à caractère prescriptif sur les responsabilités du leadership et les défis de créer des organisations qui soient plus satisfaisantes pour tous leur membres. Aux chercheurs, cette thèse offre un devis de recherche pour aller plus avant dans notre compréhension de la croissance, du déclin et de la revitalisation des organisations. Aux praticiens, aux leaders confrontés à cette tâche complexe et exigeante qu'est la transformation radicale d'un système social, cette thèse offre quelques lignes directrices et... un peu d'encouragement!

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## INTRODUCTION

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### Purpose of Thesis

This thesis is the continuation and culmination of conceptual and research efforts that began some five years ago. The aim of these exertions was, and still is, to provide a better understanding of radical change processes in organizations, to enrich the strategy/policy field's stock of relevance about the formulation and implementation of discontinuous strategies in large, complex organizations. In those five years, two lengthy theory papers were produced on related topics.

The first one (Firsirotu, 1980) contained an extensive inquiry into the concept of culture in anthropology and in organizations, before that notion had acquired its present, somewhat faddish status. This first paper was motivated by the belief that the roots of organizations were to be found, not solely in their formal properties, but in their more occult, informal, and immanent manifestations. This paper was pursuing with a different, richer metaphor, that of culture, avenues that had been opened by a number of "classic" authors who had used different analogies to make the same point about organizations: Barnard's extensive discussion of the informal organization, Selznick on the organization's character, Drucker about the spirit of the corporation, Chandler and the corporate ethos, Parsons' emphasis on the value system of organizations.

The second theory paper (Firsirotu, 1981) sought to articulate a conceptual model of radical change in organizations. It seemed plausible that a fruitful source of insights about the processes of radical change in large social systems, would be found in the sociological and political science literature on societal revolutions. Indeed, a number of contentious schools of thought and fascinating theories were uncovered and assessed, and a choice was made of a model that appeared most relevant to my purpose. This second theory paper merged relevant notions from political science, pertinent conjectures from organization theory, and concepts marshalled from the anthropology literature, in a comprehensive conceptual model of radical change processes.

The present study of an attempted radical transformation of a large organization is an additional step in the same direction; structured and informed by the conceptual model developed in earlier papers, this thesis seeks to ascertain the relevance of this conceptual model and to enrich its articulations.

But why this preoccupation with radical change?

It seems that many large organizations, more than in previous times, are suffering from stagnation and decline, and are threatened with ultimate demise if corrective actions are not swiftly and effectively implemented.

A quick survey of the business press brings forth a host of large organizations that are (or were recently) in the throes of major overhauls. In addition to the more famous cases, such as Chrysler and Massey Ferguson, the following cases are but a small sample from a much larger population: Westinghouse (Business Week, 1983a), Montgomery Ward (BW, 1983b), Digital Equipment Corp. (BW, 1983c), A & P (Fortune, 1982), Sears' retailing division (Fortune, 1983a), Burroughs (Wall Street Journal, 1982a), Continental Corp. (WSJ, 1983a), Corning (WSJ, 1983b), Sherwin Williams (WSJ, 1983c), Canada Post Corporation (Warren, 1984), New York's Mass Transit Authority (The New York Times, 1984).

Academic publications have also shown lately an increasing interest in the issue: Porter (1980) devotes a full chapter to industry decline; Ford, (1980), Whetten, (1980) deal directly with this issue of decline; Nelson (1981) focuses on corporations on their way to bankruptcy; Hughes (1982) provides a good description of three organizations that experienced moments of decline, (Zenith, Boise Cascade, Avco). The strategy/policy field also contains a thin literature on turnaround strategies, and a group of Swedish scholars have produced abundant materials about decline and rejuvenation in organizations; both currents will be reviewed in this thesis.



Although it seems extremely difficult to implement turnarounds in large organizations, the strategy/business policy field is still groping to find adequate explanations and diagnoses for such occurrences and to come up with effective strategies to cope with them. The prescriptions offered by organization theorists and strategy scholars to deal with such situations, have been tentative at best. For instance, organizations must "unlearn yesterday and invent tomorrow" (Hedberg and Jönsson, 1977), effect changes of a "revolutionary nature" (Miller, 1980), adopt "an entrepreneurial behavior that changes the pattern of environmental linkages" (Ansoff, 1977). The gist of these advices is that organizations must learn how to radically transform their structures, functions and culture.

That is the purpose and program of this thesis. It aims at providing an empirically tested conceptual model for the formulation and implementation of radical change strategies in complex organizations. Specifically, the thesis will provide a detailed study of an organization (Canadian National Express) undergoing a radical transformation; it will chart and interpret the processes and dynamics of formulating and carrying out an intended turnaround strategy.

An incidental, but not inconsequential, contribution of this thesis comes from its proposing and testing explicit methodological heuristics for the assessment of culture in organizations.

A brief word about the organizational setting selected for this empirical work. The organization studied is actually a division formed in 1976 out of the small parcel and less-than-truckload operations which were up to that point integrated in the Canadian National (CN)'s railway operations. CN, a large crown corporation, provided the cultural and structural ambiance for these trucking operations up to that time. From 1976 onward, CN's Express operations became a struggling, money-losing, division (CNX), trying to find and implement strategies and ways of operating which would fit its competitive environment, the trucking industry. During the period 1978-1982, a turn-around strategy was sought, found and implemented at CNX.

## Plan of Thesis

This thesis unfolds in many conceptual and empirical directions, and encompasses many domains of knowledge: economics, political science, sociology, anthropology, organization theory, policy and strategy. Its length and complexity are largely unavoidable by-products of the subject matter and of the requirements of explicitness that come with thesis work. No doubt, it makes heavy demands on the reader, but I have found no satisfactory way of lightening the load. However, I hope that by providing a clear rationale for its various parts and a road map indicating loci of particular interest, the reader will, as the expression goes, bear with me.

The first chapter outlines the conceptual model of radical change that informs and guides this study. Chapters 2, 3 and 4 offer an extended treatment of the concepts and approaches which constitute building blocks for the proposed model of radical change.

Chapter 2 summarizes the various schools of thought and "generations" of thinkers on the causes and processes of revolution in the field of political science; this survey serves the purpose of positioning clearly Chalmers Johnson's "value-coordination" theory of revolutions in the spectrum of theories and conjectures about revolutions in social systems. Johnson provides a seminal framework that is very germane to organizations as will become clear in the next chapter.

Chapter 3 ferrets out relevant conceptual schemas about discontinuous strategies and changes in the organization theory and business policy literature. It provides an extended discussion of three particular components of that literature: 1. the budding corpus of writings on strategic turnarounds; 2. the rich production of Swedish scholars on discontinuous organizational changes as cognitive reorientation; 3. Ansoff's notion of "strategic posture transformation".

Chapter 4 provides a condensed discussion of various concepts of culture and develops a comprehensive model of organizational culture and structure which is the corner stone of the radical change model proposed in this thesis.

Chapter 5 is about methods and issues; it presents the methodological heuristics to assess organizational culture and structure, a most difficult task that has received little attention in the rush of publications on culture in organizations. This chapter also identifies the substantive questions and issues on which this empirical work intends to shed some light.

The ensuing chapters present the results of an in-depth, multi-factor, synchronic and diachronic case study of radical strategy processes. Chapter 6 offers an indispensable economic and market structure analysis of the industry (small-parcel and less-than-truckload transportation) in which the organization is functioning. This analysis is carried out in strict observance of the canons of the industrial organization paradigm (Scherer, 1980), and its strategy field variant (Porter, 1980).

Chapters 7 and 8 present a diachronic assessment of the culture and structure of the CN organization up to 1976; they provide an extensive search for the lingering influences of historical and contingency factors on the contemporary functioning of the organization. These two chapters offer a broad sketch of the transformations of an organization over a span of some sixty years.

Chapter 9 is an account of events that occurred in the express operations up to the beginning of the turnaround phase in 1979.

Chapter 10 offers a synchronic assessment of the cultural and structural realities of CNX around 1976-1978, when the turnaround phase is about to begin.

Chapter 11 consists of a detailed, chronological presentation of events and acts during the turnaround phase (1978-1982). This chapter may prove fastidious, but it provides the essential acts and events which must be interpreted and ordered to make sense of the dynamics of the radical change strategy that was occurring or, at least, was attempted at CNX. The reader will find in this chapter the basis for the interpretation and structuring of these complex processes, which are offered in the next chapters.

Chapter 12 is an integrated, flowing account of the dynamics and processes, during the turnaround period at CNX; it provides this researcher's interpretation of the events and acts of the period, putting them in perspective and giving them coherence (from the researcher's point of view). This interpretation also integrates the comments, views and reflections of key organizational actors of that period. Next, it relates the contents of this case study to the conceptual model and draws some conclusions about the formulation and implementation of discontinuous strategies in organizations.

Chapter 13 draws a number of critical conclusions of a conceptual and methodological nature about the radical transformation or overhaul of large, complex social systems. It also points to issues and domains of investigation for researchers interested in this topic.

CHAPTER - 1

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**A CONCEPTUAL MODEL OF RADICAL CHANGE IN ORGANIZATIONS**

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### 1.1 Foundations for a Conceptual Model of Radical Change

Organizations may be studied productively from many metaphorical perspectives. As a matter of fact, the discourse on organizations has indeed been laced heavily with analogies and metaphors. In a biological analogy, organizations have purpose and survival goals (e.g., Barnard, 1938; Rice, 1963), go through life cycles (Haire, 1959; Kimberley and Miles, 1980), are plagued with problematic health (Bennis, 1966), subjected to selection processes (Hannan and Freeman, 1977; Aldrich, 1979). An anthropomorphic metaphor endows organizations with personality, needs and character (Selznick, 1957; Rherman, 1973; Harrison, 1972) or with typically human cognitive processes (Argyris and Schön, 1978; Heirs and Pehrson, 1972; Hedberg, 1979).

However, lately, a prevalent and persistent analogy characterizes organizations as societies writ small (Silverman, 1970; Hedberg, 1973; Rherman, 1973; Stymne, 1972; Nystrom et Al, 1976; Hedberg and Jönsson, 1977; Brown 1978; Ansoff, 1977; Berg, 1979; Meyer, 1979; Tichy 1983; Lodahl and Mitchell, 1980; Walton, 1980; Pfeffer, 1981). Organizations are then made up of various interrelated components or sub-systems (technical, structural, political, cultural, individual, formal, social).

The metaphor of organizations as miniature societies is a proposition of considerable relevance. Instead of borrowing the metaphors (biological, anthropomorphic, etc.) used by sociologists and anthropologists for the study of societies, society itself would become the metaphor for organizations, providing a common framework within which different intellectual traditions and epistemological assumptions can be confronted and debated. It could provide a forum for contrasting an array of conceptual and philosophical models for the study of organization, without the additional confusion of conflicting metaphors and divergent semantics.

But more relevant to the topic of this thesis, the metaphor of the organization as a "little society" may be enriched by the contributions of sociologists and political scientists on the subject of radical change or revolution in large social systems. By working within the framework of organization as a small society, the inputs of these researchers to our understanding of revolutions in societies, acquire relevance and may provide new insights and fruitful avenues of inquiry into the processes of radical change in organizations.

In articulating a model of radical change, choices have to be made among the large array of vying, often conflicting, views as to how societies function, as to the nature of critical components of society, as to their relationships, as to why and how societal revolutions come about. Three critical conceptual building blocks were eventually chosen, enriched and integrated into a model of radical change in organizations.

A first concept is the Parsonian distinction between social, cultural and personality systems in any society:

"a social system is only one of three aspects of the structuring of a completely concrete system of social action. The other two are the personality systems of the individual actors and the cultural system which is built into their action". (Parsons, 1951, p.6).

Parsons, following upon Sorokin (1928)'s earlier work, demarcates the "cultural" and "social" system thus:

"one of the more useful ways - but far from the only one - of distinguishing between culture and social system is to see the former as an ordered system of meaning and of symbols, in terms of which interaction takes place; and to see the latter as the pattern of social interaction itself". (Parsons and Shills, 1951, p. 122)

A derivate notion is the irreducibility of any one of a society's dimensions to one or a combination of the other two. Thus, Parsons (1951, p.6) stresses:

"Each is indispensable to the other two in the sense that without personalities and culture there would be no social system and so on around the roster of logical possibilities. But this interdependence and interpretation is a very different matter from reducibility, which would mean that the important properties and processes of one class or system could be theoretically derived from our theoretical knowledge of one both of the other two".

The anthropologist Clifford Geertz has been an articulate proponent of this view:

"Though separable only conceptually, culture and social structure will then be seen to be capable of a wide range of modes of integration with one another, of which the simple isomorphic mode is but a limiting case - a common only in societies which have been stable over such an extended time as to make possible a close adjustment between social and cultural aspects. In most societies, where change is characteristic rather than an abnormal occurrence, we shall expect to find more or less radical discontinuities between the two ..."  
(Geertz, 1973, p.144).

This problematic integration of structure and culture is fraught with potential for tension and dissynchronization, which is a significant factor in understanding the processes of change in social systems.



A second concept which comes from Chalmers Johnson (by way of Parsons) is the notion of a value-coordinating system. In his major work, The Social System, Parsons gives his strongest expressions to this view:

"The integration of a set of common value patterns with the internalized need disposition structure of the constituent personalities (i.e. sane, socialized people playing roles in the system) is the core phenomenon of the dynamics of social systems. That the stability of any social system except the most evanescent interaction process is dependent upon a degree of such integration may be said to be the fundamental dynamic theorem of sociology. It is the major point of reference for all analysis which may claim to be a dynamic analysis of social process."  
(Parsons, 1964, p.42).

Parsons' conceptual framework has been bitterly attacked for its functionalist overtones, its implicit defense of the status quo and its alleged legitimation of order and power arrangements as they are. There may be some substance to this claim in some of his less temperate statements; however, as a conceptual model, the Parsonian schema provides a useful lens for the examination of radical changes.

Chalmers Johnson (1966), a student of Parson, has done just that. He proposed a comprehensive theory of revolutions that is based on Parsons' "value-coordinating" concept of societies.

For Johnson, the primary determinant of revolutions is to be found in the dissynchronization between a social system's values and structure. Accordingly, whenever pressures of an endogenous or

exogenous nature<sup>1</sup> impinge upon a social system in an intense and unprecedented manner, its value system may become dissynchronized, unable to provide goals for action and explanations of social reality. People become disoriented and susceptible to conversion to an alternative value system, or revolutionary ideology, which purports to explain and change a problematic social situation.

Johnson also believes that the macroscopic study of revolutions is insufficient, that revolutions' most critical changes are to be found in the cognitive reorientations of individual members of a society. This led him to attempt to integrate the stages of systemic change during a revolution with the stages of personality change. In this, he was much influenced by Wallace's model of cultural revitalization and its careful delineation of the "deliberate", organized attempts by some members of a society to construct a more satisfying culture (Wallace, 1970). Wallace was (and still is) one of the few anthropologists to address directly and in a sustained manner the issue of radical culture change in a society.

---

<sup>1</sup> Johnson divided the pressures for change into four subgroups:

1. Exogenous-value changing sources, such as global communications, the rise of external "reference groups" (e.g. the effects of Russian revolution on neighboring populations, the work of groups such as Christian missionaries, and other instances that can be characterized as "culture contact";
2. Endogenous-value changing sources, i.e. changes in values that are brought about as a result of intellectual developments such as the corrosive effects of the theories of Bacon, Descartes etc. on Scholasticism.
3. Exogenous environment - changes, such as millitary conquest, imported technologies and skills, the migrations of populations;
4. Endogenous environment - changing sources refer to internal technological innovations, such as the invention of the wheel or the railroad.

The value-coordinating system perspective of revolution and the Johnson-Wallace's revitalization process are valuable notions that were used to conceptualize the processes of radical change in organizations. The next chapter provides a more detailed account of that theoretical model and contrast Johnson's theory with other concepts of revolution. It should become clear that, from an organizational perspective, Johnson's theory of revolution offers a useful conceptual model, one which deals extensively with critical linkages between the social and value systems and between these two systems and their environment.

The third concept on which the model rests, is the symbolic notion of culture articulated by Geertz and broadened for an organizational context by Allaire and Firsirotu (1981, 1984). Indeed, while Johnson found it convenient to use Wallace's concept of culture revitalization, the latter's notion of culture as cognitive, mutual equivalence structures, is not entirely satisfactory (as will be made clear in chapter 4), and is indeed incongruent with the value-coordinating perspective of Parsons.

Geertz, another student of Parsons, has become the leading proponent of an ideational concept of culture as an ordered system of symbols, autonomous yet interrelated with the social system. Culture becomes the fabric of meaning in terms of which social phenomena may be "thickly" described.<sup>1</sup> Culture consists of "traffic in significant symbols and its natural habitat is the house yard, the market place and the town square" (Geertz, 1973, p.45). Those significant symbols or products of mind constitute the raw materials for the interpretation of the ordered system of meaning in terms of which interaction takes place.

---

<sup>1</sup> Geertz borrows the notion of "thick description" from Ryle, who uses it to mean a search for the stratified hierarchy of meaningful structures that must be sorted out in order to make a phenomenon intelligible. "Doing ethnography is like trying to read a manuscript - foreign, faded, full of ellipses, and incoherences and which is written not in conventionalized graphs of sound, but in transient examples of shaped behavior". (Geertz, 1973, p.10)

This symbolic concept of culture was however broadened, and adjusted to the circumstances of organizations. The diachronic and syn-chronic influences on culture development were made more explicit than is found in the writings of the symbolic school. Chapter 4 elaborates on this point.

These three notions, when integrated and adapted to the context of organizations, lead to novel insights and interrogations about the components of an organizational system, the state of harmony among them, the sources of organizational stagnation and decline, and the processes of rejuvenation in organizations.

## 1.2 A Conceptual Framework for the Study of Organizations

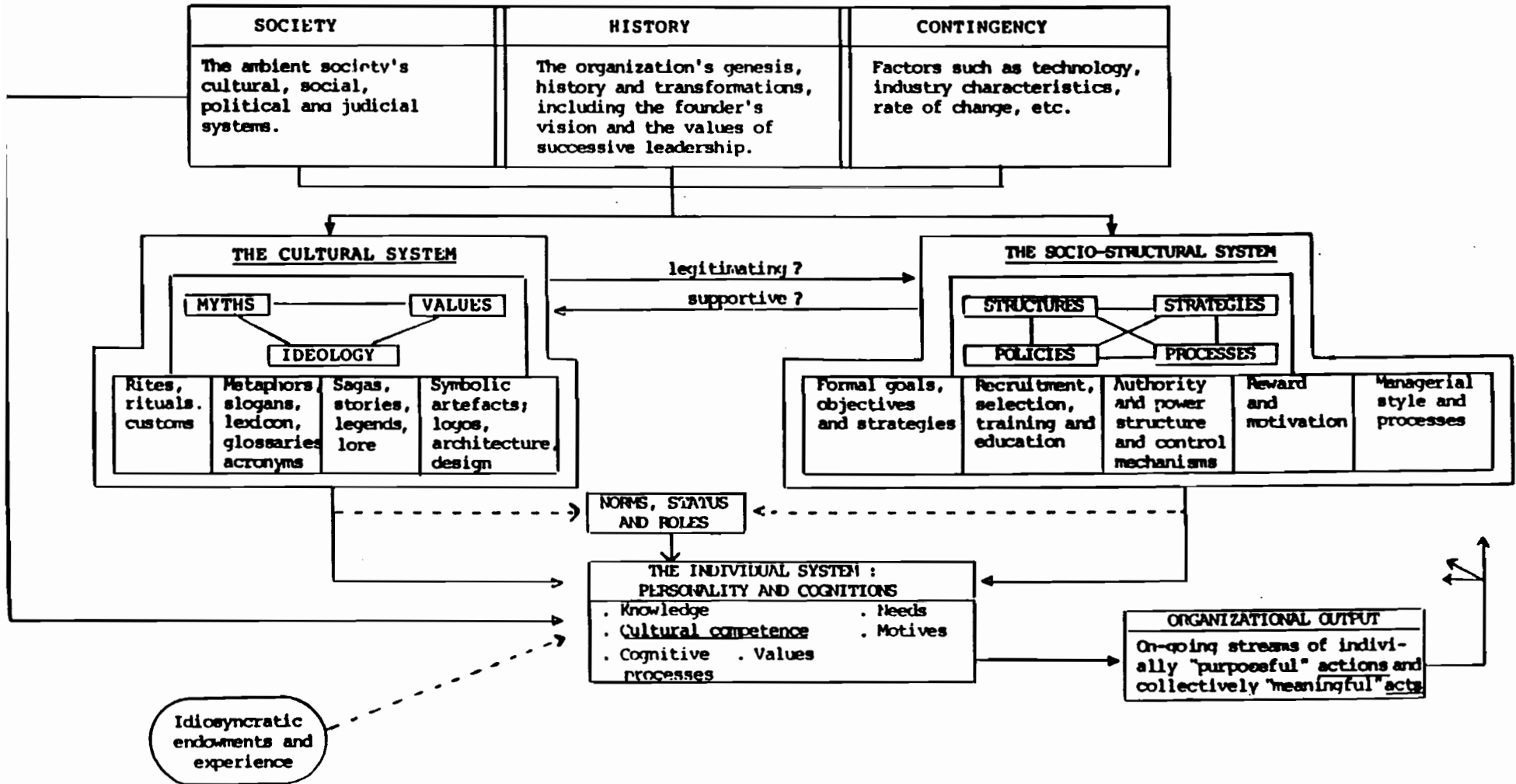
As a direct consequence of the metaphor of organizations as "little societies" and of the Parsonian tradition of sociological analysis, organizations may be viewed as composed of three independent, yet inter-related, components: a socio-structural system, a cultural system, and individual actors (Figure 1.1). These three components are in turn influenced and shaped by three sets of factor: Society, History and Contingency. Let's examine first the variables of the model and then focus on the linkages among them.

### 1.2.1 The Variables

- (1) The socio-structural system is composed of the interworkings of formal structures, strategies, policies and management processes, and of all ancillary components of an organization's reality and functioning (formal goals and objectives, authority and power structure, control mechanisms, reward and motivation, process of recruitment, selection and education, sundry management processes);

Figure 1-1

A CONCEPTUAL FRAMEWORK FOR THE STUDY OF ORGANIZATIONS



- (2) The cultural system embodies the organization's expressive and affective dimensions. It is the invisible current that energizes structures and systems. It is the "software" that drives the "hardware", the socio-structural system. Culture is defined here as a system of shared and meaningful symbols, secreted by the organization's history and past leaders, its sociocultural context and contingency factors and is supported, reinforced or tampered with by the organization's present leaders and extant socio-structural characteristics; culture may be stored as myths, ideology and values, and is made tangible in multiple cultural artefacts and products of mind: (rites, rituals and customs; metaphors, glossaries, acronyms, lexicon and slogans; sagas, stories, legends and organizational lore; logos, design, architecture).

The constructs of myth, ideology and value have each generated a vast literature containing contradictory and confusing elaborations and definitions. Without reviewing here the contents of this intricate literature, definitions of these terms are proposed which are consistent with the symbolic concept of organizational culture.

Myths ("Machines for the suppression of time" (Lévi-Strauss)) provide tenacious and affective links between a valued, often glorified past and contemporary reality, bestowing legitimacy and normalcy upon present actions and modes of organization. Cohen (1969) defined a myth as a substantially fictional narrative of events related to origins and transformations, expressed in symbolic terms and endowed with a sacred quality.

"Myths justify and sustain values that underlie political interests, explain and thereby reconcile the contradictions between professed values and actual behavior and legitimate established leadership systems faced with environmental threats." (Pettigrew, 1979, p.576).

Ideology is a unified system of beliefs which provide encompassing, compelling, often mythical, explanations of social reality; it legitimizes present social order or proposes radically different goals (revolutionary ideology) and urgently impels to collective action.

"Whatever else ideologies may be - projections of unacknowledged fears, disguises for ulterior motives, phatic expressions of group solidarity - they are, most distinctively, maps of problematic social reality and matrices for the creation of collective conscience." (Geertz, 1973, p.220)

Values are symbolic interpretations of reality which provide meanings for social action and standards for social behavior. Thus, values are constitutive elements of ideology which integrates them and arranges them into a unified system of beliefs; but values also represent the most tangible expression of an ideology. Ideologies use values as building and expressive material, but values may exist without cohering into an ideology. While not all organizations may nurture myths and ideologies, they will all tend to foster their characteristic set of values and derivative symbolic artefacts. These values take the form of fundamental and instrumental assumptions and expectations shared and used to a varying degree by individual actors.

Fundamental assumptions refer to particular orientations regarding basic dimensions of all cultures such as:

- the nature of Man
- the ethics and meaning of life
- the nature of truth and the means of its discovery

- the voluntaristic/deterministic character of life
- the relevant time horizon
- the nature of progress, change and order
- the reconciliation of individual liberty and collective life.

(Parsons and Shils, 1951; Kluckhohn and Strodtback, 1961; Inkeles and Levinson, 1969; Naroll, 1970; Hofstede, 1980).

Instrumental assumptions would be related to:

- the role and purpose of the organization
- the degree of control over its environments
- its product-market-customer orientation
- the definition of achievement and the canons of performance
- the nature and source of authority
- the responsibility of the organization to the individual and vice versa
- the character of interpersonal relationships.

- (3) The individual actors, the third component of the model, with their particular endowments, experience and personality, are not merely passive recipients of a pre-fabricated "reality"; depending on their status and leadership role, they become contributors and molders of meanings. All actors however strive to construct a coherent picture to orient them to the goings-on in the organization. Their degree of integration in, and their mode of relationship to, the cultural system (their "cultural competence") and the extent of sharing of meanings with other actors, are variable and contingent phenomena to be discussed further shortly.

The participants' individual actions draw "purpose" from their intended or projected acts; the "finished" or realized individual acts contribute to a collective of organizational acts which are interpreted and given "meaning" by the individual actor. These purposes and



meanings may be prospectively or retrospectively attributed (Giddens, 1977) but, in either case, they are constructed from the expressive, symbolic materials extant in the organization at a particular point in time. As all actors fabricate their "meaning" from these same cultural raw materials, a degree of sharing of meaning (not necessarily of goals however) will tend to evolve among actors interacting in the same social context for a prolonged period of time.

These three constitutive elements (culture, structure and actor) of any organization are interdependent, variously integrated, and rarely will any one component be reducible or totally subordinated to the other two.

Norms, status, and roles, immediate and concrete reflections of both the cultural and socio-structural dimensions of organization, provide sensitive indicators of the state of congruency between them.

These constitutive elements of any organization take particular content and shape as a result 1) of their synchronic interactions and 2) of the complex diachronic influences on them of ambient society, of the organization's particular history and of the set of contingency factors which have shaped the organization.

Society refers to the ambient social, cultural, political and judicial environments in which an organization has its roots, including the ethnic character, the religious diversity, the nature and heterogeneity of values of the surrounding society.

History refers to the organization's genesis, the nature of its ownership, its historical transformations, the founder's and successive leaders' values, its past tribulations and strategic successes. These factors tend to produce a cumulative stock of symbolic materials, an emerging world view and ethos, that permeate the life and contemporary functioning of the organization.

Contingency: every organization came to life and evolved within a nexus of contingent influences arising from the economics, technology, labor relations, and government regulations which are specific to its industry. These influences have been incrustated into the functioning of the organization, have molded to a varying extent the character of its cultural and socio-structural systems.

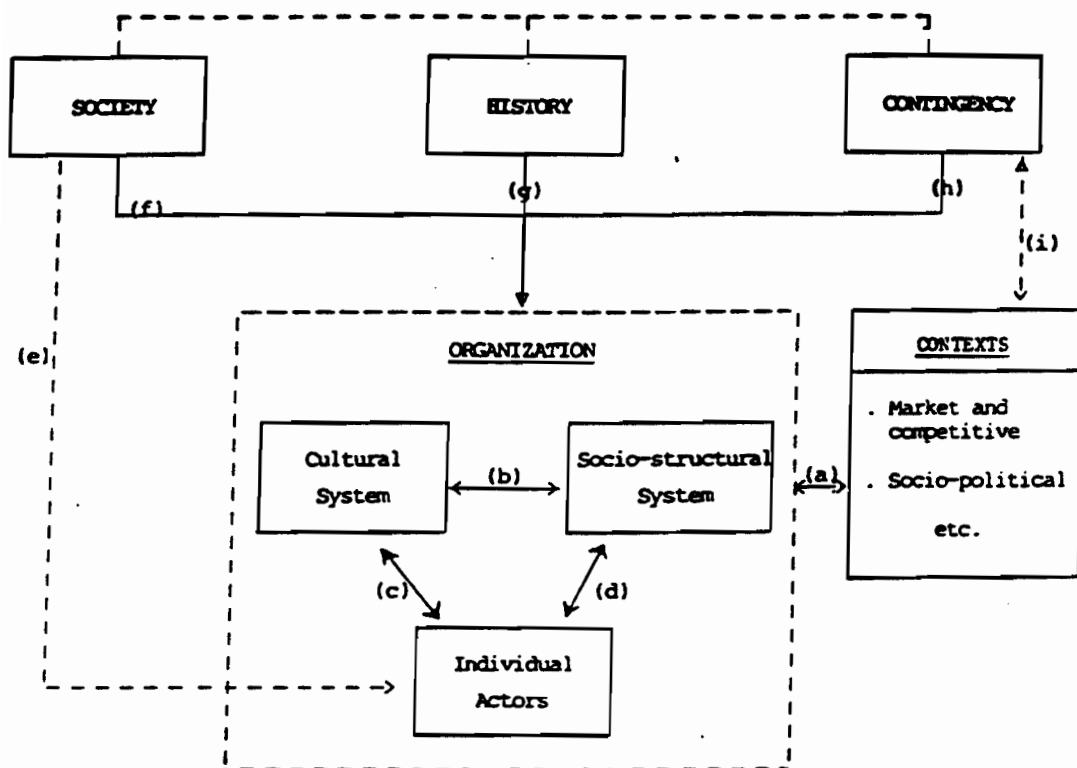
### 1.2.2 The Linkages

The simple conceptual framework sketched in Figure 1.1 hints at a number of critical linkages and relationships among the variables of the model. Figure 1.2 identifies nine linkages (from a to i) which should give pause to any investigator interested in the dynamics of organizational change.

Linkage (a), a staple, albeit a problematic one, of the strategy and organization theory literature, stresses the need for fit, adjustment, consonance or alignment, between an organization's output of acts and the requirements of its market, competitive and socio-political contexts; this linkage is bi-directional as organizations are not just passive adapters to their contexts but can also try to modify their environments to suit their interests and capabilities. This particular linkage will be developed further later on in this chapter.

Linkage (b), refers to the relationship between the cultural and socio-structural systems of the organization. These two systems may exhibit various degrees of synchronization or consonance.

Figure 1-2

A CONCEPTUAL FRAMEWORK FOR THE STUDY OF ORGANIZATIONS: THE LINKAGES

In any viable organization, its cultural system will have evolved in tune with the organization's more formal properties: its goals, strategies, structures and management systems. As a result, in the normal course of events, culture and structure are meshed in very tightly, support and reinforce each other to a considerable extent for better or for worse. In fact, these two components are often so closely interwoven that they come to be considered as one entity. However, this "holistic illusion", frequent in the organization theory literature, hides a great potential for tension, stress and dissynchronization whenever the organization is submitted to (endogenous or exogenous) pressures for change. Discontinuous, rapid changes in the organization's socio-structural system may break its supportive, legitimating linkage; such a break will create confusion and disarray as actors struggle to interpret the goings-on with a mind set of assumptions and expectations that do not fit the new circumstances. Severe dissynchronization between an organization's cultural and socio-structural systems will lead to a much reduced internal and external efficiency for the organization.

In much of organization theory, organizations are considered as holistic socio-cultural systems (for a discussion of this point, see Allaire and Firsirotu, 1981; 1984a). Their ideational components (i.e. pattern of shared meanings and values, systems of knowledge and beliefs) are assumed to be harmoniously interwoven and congruent with their social structure component. In this tradition, research and theories tend to center on the structures, functioning and evolutionary processes of these socio-cultural systems, and on the development of typologies to provide monistic explanations for the large variety of forms and processes observed. Obviously, as the symbolic and formal aspects of organizations are assumed to be attuned and mutually supportive at all times, little attention is paid to the possible dissonance between the cultural and socio-structural aspects of organizations.

However, some intimations of a possible incongruence between the ideational and structural components of organizations, are found scattered in the organization literature. For instance, Rhenman (1973) sees reduced internal efficiency as stemming from dissonance between the organization's value system and its "other sybsystems". Pfeffer (1981) adumbrates a concept of organizations as composed of symbolic and instrumental components which "have different dependent variables, different processes, and are themselves only imperfectly linked" (p. 6, emphasis added). Meyer (1979) proposes the notion of organizations as made up of symbolic and technical structures which may become disjointed as a result of differing environmental pressures. Ansoff (1977) argues that "the level of culture and the level of capability in an environment-serving organization will not match each other, particularly in environments undergoing a shift in turbulence" (p. 63, emphasis added). Schwartz and Davis (1981) also stress the potential incompatibility between culture and the formal strategy of the organization. Tichy (1983) writes about weak performance resulting from the poor alignment of the organization's political, technical and cultural components.

Linkages (c) and (d) underline the fact that individual actors strike economic contract with the organization and respond to tangible inducements contained in the sociostructural system; but the individual is also socialized to the organization's values, traditions and outlook; he or she learns and assimilates symbolic materials, develops assumptions and expectations which eventually become unquestioned bases for action, part of the individual's frame of mind. These two linkages bring forth three issues:

1. The individual actor, of course, does not, could not, make a distinction between linkages (c) and (d). His relationship is with the organization (or some part of it) as a unit; therefore any incoherence or inconsistency between cultural and structural manifestations will be confronted and reconciled in his mind. If

these dissonant elements are minor, they will be made to fit through reinterpretation, selective disregard or neglect. If the dissonance is considerable, and cannot be ignored nor made innocuous, actors will experience considerable stress and bewilderment.

2. Actors vary greatly in their capacity to influence the character of an organization's sociostructural and cultural systems. The bi-directional flow of linkages (c) and (d) reflect the fact that dominant actors may and do act to maintain or change the nature of the organization's formal and informal properties, albeit with considerable more ease in the former than in the latter case. For other, less dominant actors, culture and structure are largely given and in use when they join the organization and are changed by additions, alterations and deletions of an incremental nature, to which they may or may not have contributed.
3. The relationship of the individual to an organization's culture, his integration to its system of values and beliefs, the structuring of his mind by the assumptions, worldview, and expectations that permeate it, may take many forms and various degrees of intensity. It is possible to identify four possible modes of integration between the culture of an organization and the actor's personal construing and use of these meaningful materials. One such mode may be that of perfect and total replication in the individual of the organization's system of symbols and meanings. The organization's culture would then powerfully condition the actor's responses, with little scope for interpersonal variations and individual choices. In this adaptation of cultural determinism to organizations, one thinks immediately of Whyte's organization man, of Maccoby's company man "whose sense of identity is based on being part of the powerful, protective company" (Maccoby, 1976, p. 40), or of Goffman (1957)'s vivid description of life in "total organizations".

A different, perhaps more common mode of integration would be that of partial replication whereby the set of public organizational symbols is imperfectly reproduced in individual cognitions, having been modified, tampered with, by the particularities and vagaries of the actors' personality and experiences inside and outside of the organization. Culture then has a relative influence on individual actions and behavior, determining only the probability or propensity of choosing one way or the other. Among actors interacting over a period of time, there, nevertheless, evolves and subsists a communality of meanings which facilitates their interactions and serves to make sense out of their organizational world. Different actors may respond to, or have been influenced by, different elements in the array of cultural assumptions, values and beliefs that coexist in organizations.

A third possible mode of relationship between culture and individual actors may be termed the meta-cultural mode; the individual understands the system of public symbols of the organization and uses it to anticipate and predict the behavior of the organization's members who participate in its culture. Such relationship enables the meta-cultural actor a certain distantiation from specific organizational situations and an enhanced capacity to bring about changes both in the cultural and sociostructural systems of the organization. As one does not have to belong to an ethnic group to learn its language, similarly some people may be competent in the culture of an organization without being a member of that organization (e.g., board members, consultants, researchers). Furthermore, it is possible for some actors to be competent in many organizational cultures.

Finally, the individual actor may be unintegrated, exhibiting a strictly calculative, utilitarian relationship with the organization. Efforts to integrate him may be rebuffed, elicit cynical responses or a pro forma participation.

These various modes of individual integration to culture may, of course, be present simultaneously in the same organization. Encompassing, powerfully socializing cultures tend to lead to, and be reinforced by, the first mode of integration, and to quickly reject individuals of the last type. But many other configurations of culture-actor relationships are conceivable, each one having different dynamics and consequences for the life of the organization.

Linkage (e) is included for the sake of comprehensiveness; it reminds us that a society's particular values seep into organizations by way of employees who are recruited and brought in after the primary socialization processes of family and schooling have inculcated their particular orientations in them. This linkage takes particular relevance for organizations functioning in multi-cultural, poly-ethnic or pluri-religious societies, but will not be pursued further in this thesis.

Linkages (f), (g) and (h) emphasize the diachronic processes by which antecedent factors have a lingering effect on the present-day functioning of an organization. The relative influence of these factors on any organization is an empirical question of considerable importance.

For instance, multinational corporations, adaptive to the judicial and political realities of the countries in which they operate, are not in general, so plastic with respect to societal values and culture. They need, to a high degree, common meanings, shared decision premises and internalized control mechanisms; these are provided by a charismatic culture and powerful socialization processes that emphasize the organization's saga, its founders' vision, its past and present leaders' achievements, its uniqueness, its commitment to customers and employees, etc.



The seepage of ambient society's values into each of their subsidiary must be minimized; not that these corporations try to foist upon their members a counter-culture, a set of values antagonistic to those prevalent in the larger society; they merely attempt to create a sub-culture within which will thrive a coherent set of values which are functional to the goals and operations of the organization. Of course, "national" corporations also attempt to create a specific and functional "cultural" environment. This phenomenon allegedly explains in good part the "excellence" achieved by some large U.S. corporations (Peters and Waterman, 1982).

At any rate, these phenomena, the role of a firm's genesis and history, as well as the conscious attempts by past and present leaders to create a suitable value environment, have received the bulk of attention in the literature on culture in organizations. However, this focus on "charismatic cultures" overlooks the powerful but more subtle influence of contingency factors structuring the mind and shaping the behavior of organizational members.

In many organizations, culture is not made manifest in company songs, drum rolls and other symbolic paraphernalia. However, just as strong a set of assumptions and expectations permeates their functioning; and because these arise from the organization's adaptation to the basic technology and economics of its industry (what cultural materialists (Harris, 1979) would call infrastructural factors), they tend to be less conscious, more inarticulate, and therefore more occult and powerful in their conditioning of actions and behavior.

Linkage (i) is also critical to an understanding of organizational dynamics: the relationship between contexts and contingency factors. The latter refers to characteristics in the firm's environment which have been assimilated into the operations of the organization, which have, so to speak, worked their way into its structural and cultural properties. Contexts, on the other hand, refer to the present, synchronic, realities of these environments. As long as contexts and

contingency are isomorphic, as long as the former is a continuous version of the latter, linkage (i) creates no difficulty. However, adaptation to discontinuous changes in contexts will have to come through changes in the organization's structural and cultural dimensions which may have been shaped by antecedent contingency factors. But, first, these changes in context have to be perceived, understood and enacted through the prism and filters of the present structure and culture of the organization; and then, they must work themselves into the organization as the new contingency factors to which the firm must adapt. These two processes may result in more or less severe lags in adjusting to a changed reality.

### 1.2.3 The Enacted Environment

Linkages (a) and (i) point to the relationship between an organization and its environments (contexts). However, environments, it was quickly pointed out, do not come as solids but as misty shapes with hazy contours. Environments are more akin to Rorschach ink blots than to exquisitely detailed porcelain figurines.

Weick (1979), borrowing from Alfred Schutz' phenomenological sociology, (1967) coined the term "enacted environments" to capture the willful, determined attempts by management to make sense out of ambiguous signals. "Humans create the environment to which the system then adapts. The human actor does not react to an environment, he enacts it" (Weick, 1979, p. 64).

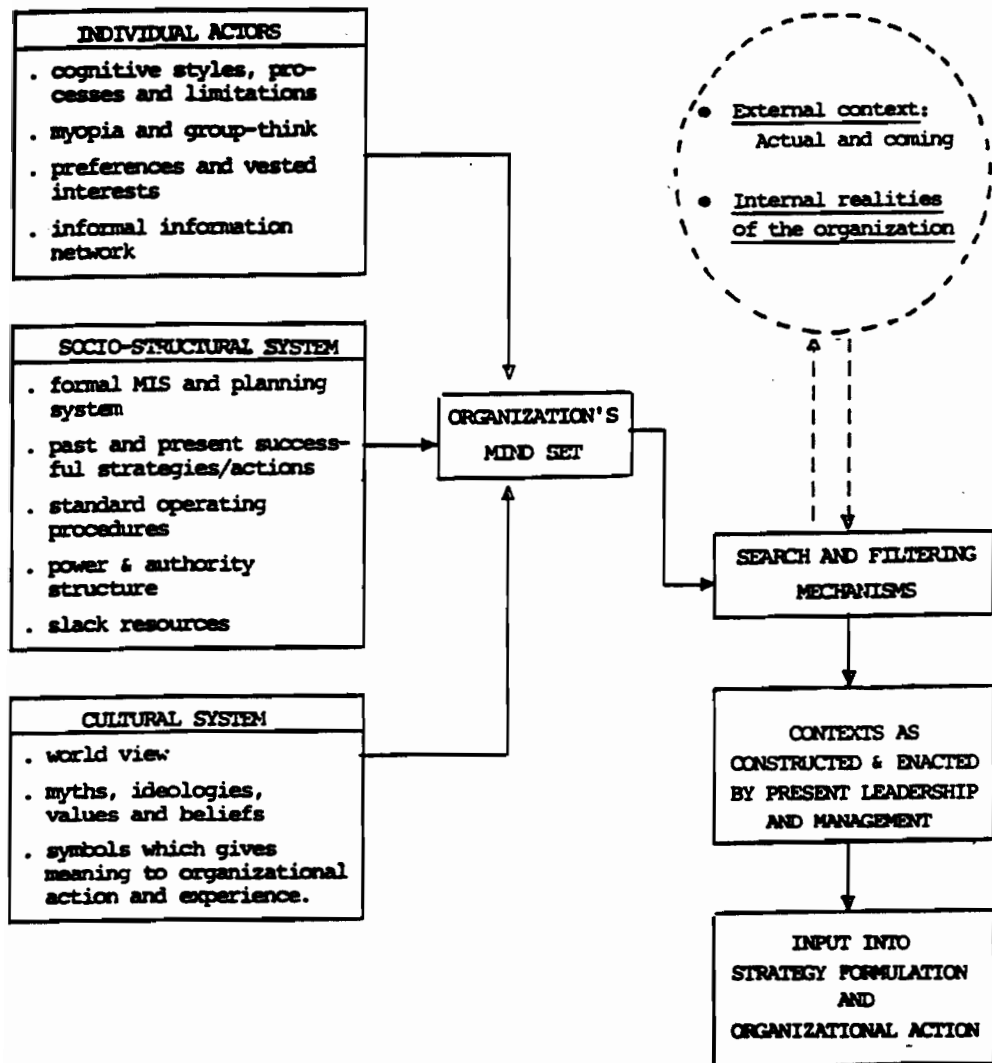
The ability of the system (i.e., the organization) to adapt to the various changes in the environment, depends on "the development of a description of reality, a theory which reflects attention to the details previously observed" (Pfeffer and Salancik, 1978, p. 73). In simpler words, organizations respond to what they construe and have "constructed" as their reality.

The enacted environment is created through a process of attention to particular events, signals and stimuli and their interpretation. As Pfeffer and Salancik (1978) aptly note, "since there is no way of knowing about the environment except by interpreting ambiguous events, it is important to understand how organizations come to construct perceptions of reality" (p. 73). Figure 1.3 presents a schema of the enactment process that flows from the conceptual framework of organizations developed in this chapter.

In many organizations, the enacted environment (i.e. context) on the basis of which its leaders plan, decide and act, may be different from the real environment (i.e. context) that impinges upon the organization and affects its performance. This gap between the real and enacted environments may result from imperfections and biases in the information filtering and search mechanisms of the organization; in other words, from malfunctions or pathologies of the "organizational mind set". This last notion is a useful but hypothetical concatenation of all factors which may affect the organization's interface with its environments. It is particularly influenced by the cognitive peculiarities of human beings and by the strong filtering effects of the organization's cultural and structural arrangements.

Indeed, the organization's social construction of reality is heavily influenced by commitment to past practices and orientations (Filigas, 1967; Wilson, 1954, 1964; Hower, 1943; Moore, 1945), standard operating procedures, routines and habituation effects of established strategies (Cyert and March, 1963; Thompson, 1967; Hedberg and Jönsson, 1978; reinforcing mythologies and world views inherent in pervasive organizational cultures (Hedberg, 1974; Nystrom et al, 1976; Clark, 1972; Mitroff and Kilman, 1976; Berg, 1979; Pettigrew, 1979; Peters, 1978; Lodahl, 1980), inappropriate managerial cognitive styles (Nystrom, 1974; McKenney and Keen, 1979); "groupthink" phenomena (Janis, 1971), vested interests in the present system of authority and power allocation (Wildawsky, 1972;

Figure 1-3

THE ORGANIZATIONAL MIND SET AND THE ENACTMENT PROCESS

Pettigrew, 1973, 1974), excessive organizational slack resources (Hedberg, 1974; Starbuck and Hedberg, 1977; Miller and Mintzberg, 1974), cognitive limitations of managers (Simon, 1957; Steinbrunner, 1974). All are factors that may lead to inadequate enactment, to a poor theory of the organization's reality.

. To the extent that organizations act on the basis of enacted environment and that the enactment process is deeply influenced by the extant sociostructural and cultural systems of the organization, then, indeed, strategy follows structure, when the latter term is understood to mean the cultural and structural properties of organizations.

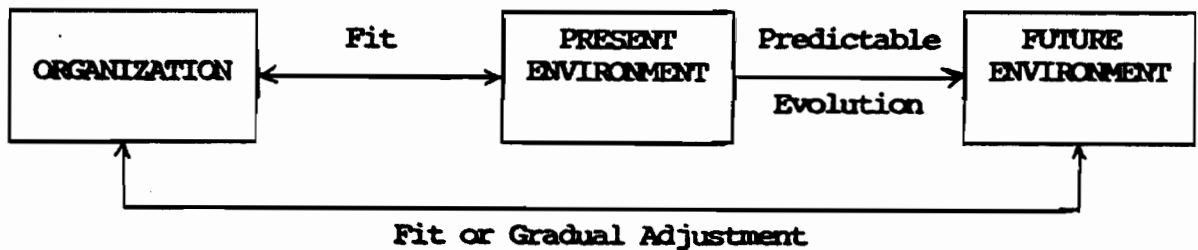
### 1.3 A Conceptual Model of Radical Change

Leaders do not usually initiate radical actions on a whim. They in fact tend, very reasonably, to prefer incremental, continuous changes, a much less dangerous and perturbing course of actions.

No radical strategy will ever happen if the organization's leadership is not convinced of the need for such dramatic actions, a conviction based on their diagnosis of the firm's fitness to its environments. A commonplace of the business policy and strategy field has been the need for fit (Chandler, 1962) or alignment (Thompson, 1967) between the firm's strategy and its environment. This wise but trite prescription can be given more bite by distinguishing, as any thoughtful management does, between present and future environments. Then, the assessment of an organization's fit and adjustment to its present and future environments will reveal one or the other of four possible situations (Allaire and Firsirotu, 1984b):

### 1.3.1 Strategic Diagnosis: Four cases

#### Case I: Harmony and Continuity



In this case, the firm's strategy is well adjusted to its present environment, resulting in sound economic performance. The future is an evolutionary, predictable version of the present, for which the firm will prepare in an incremental manner.

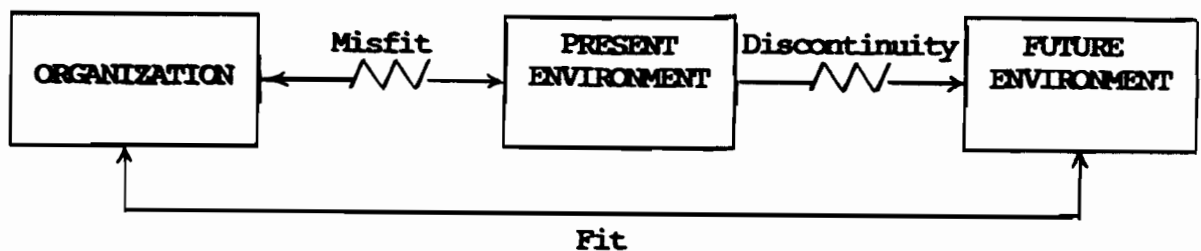
Of course, this is the preferred state of affairs, whenever attainable: harmonious fit to present context and synchronized, gradual change to meet anticipated future requirements. Managers, and for that matter most people, show a remarkable capacity to cling to this view of the situation despite loud signals that it isn't so.

To the extent that the firm's management is not deluding itself into believing that this is the proper diagnosis, the textbook prescriptions and techniques for good management, formulated for just such conditions, are relevant and useful.

This harmonious fit to present and future environments is most easily achievable in periods of easy economic growth and tranquil technology. However, periods of economic upheaval, characterized by international economic adjustments, technological transition, pervasive maturity of markets and emerging innovations, in brief "times of transformation", shake up and threaten large organizations, heretofore sedate and secure. The environment becomes "discontinuous", increasingly

characterized by radical changes in the rules of the game. In such discontinuous times, the next three cases are more frequent and call for very different strategies and leaderships.

**Case II: Pre-emptive Adjustment or Temporary Misfit**



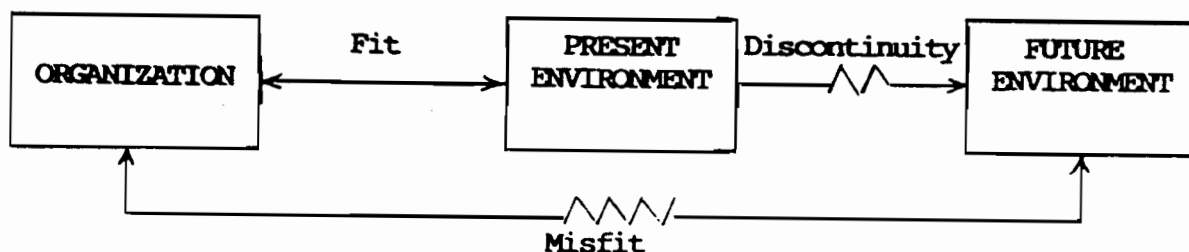
The firm is not well adjusted to its present market circumstances, which results in immediate unsatisfactory performance. However, the future, it is anticipated, will be fundamentally different from the present context. The relevant environments will undergo a more or less sudden breach of continuity, a sharp change from present conditions and evolution. The organization is prepared and ready to reap rich rewards when that happens. A good illustration of this case is provided by Citibank's expenditures on technology and product development, resulting in losses for some years in its retail banking operations; but these actions have placed the firm in a favorable strategic position as deregulation of that industry starts to take effect and radically changes the competitive and market environments. Another example is MCI Communications. Their challenge to AT and T in the long distance telephone market has been made more potent by successive changes in the regulations of the telecommunications industry in the U.S.A.

Innovating firms proposing radically new products to as yet unreceptive or undeveloped markets may be included in this category. Genentech's early foray in the gene-splicing and biotechnology field provides a good instance of that case. Firms in this situation, if they are persistent enough and their resources are sufficient, may eventually be vindicated; and then again, it may be that their venture is one of those whose time has not come, at least not soon enough to save their particular firm.

Finally, transient, short-lived, phenomena may have perturbed present environments, creating havoc and misadjustment for the organization. However, the future should bring a return to normal circumstances to which the organization is well adjusted. It will then resume its previous, acceptable level of performance.

This latter scenario may be plausible but it may also contain more than a grain of wishful thinking, an instance of what Abernathy, Clark and Kantrow (1983) have called the "transient economic misfortune" school of thought. The prevalence of this type of unfounded rationale is remarkable in industries coming to the end of their growth cycle. Whether it be for kerosene heaters, cross-country ski equipment, video games, snowmobiles or personal computers, the leveling off in sales volume was greeted by an enduring Case II explanation: bad weather, bad economic conditions, etc. had caused a momentary drop in sales growth but as soon as these return to normal, sales will again surge at their previous rate. Of course, it was never to be!

### Case III: Transformation or Reorientation





The firm is well adjusted to its present environment and turns in strong, respectable performances. However, its management foresees a future context quite different from the prevailing one as a result of demographic, technological, regulatory or competitive changes (including its own actions to shake things up, to "demature" the industry (Abernathy, Clark and Kantrow, 1983)).

Classic examples of major transformations that have restructured whole industries would include Boeing's shift to the production of jet engine commercial airplanes and IBM's immense wager on the integrated circuit technology of the 360. More recently, the dramatic changes happening and anticipated in computer markets and technology have called for major modifications of strategy at IBM and Digital Equipment; in the latter's case, K.C. Olsen, its president, "embarked upon a radical transformation of his engineering oriented company into a tough market driven competitor" (Business Week, 1983c).

At Black and Decker, painful competition from Japanese manufacturers has led the company to bet its future on a "global" market strategy requiring a major transformation of the corporation. (Fortune, 1984a). The management of Beatrice Foods has also voiced its intention to "transform the sprawling food, consumer and industrial products holding company into a consolidated marketing giant on the order of Procter and Gamble Co." (Wall Street Journal, 1983d).

In Canada, the Bank of Montreal has undertaken a major transformation of its structures and modes of operation. It is preparing for (and ushering in) an emerging banking environment that is thought to call for radically different operating technologies, management systems and banking philosophy (Reuber, 1983).

AT and T's struggle to shift from a regulated telephone monopoly to an efficient marketer of communication/information systems is perhaps the most striking (and discussed) example of a large-scale attempt at strategic transformation (Tunstall, 1983; BW, 1983d; WSJ, 1983e).

This process of transformation to cope with discontinuous future circumstances may result in a temporary misfit to present environments, as mentioned in Case II.

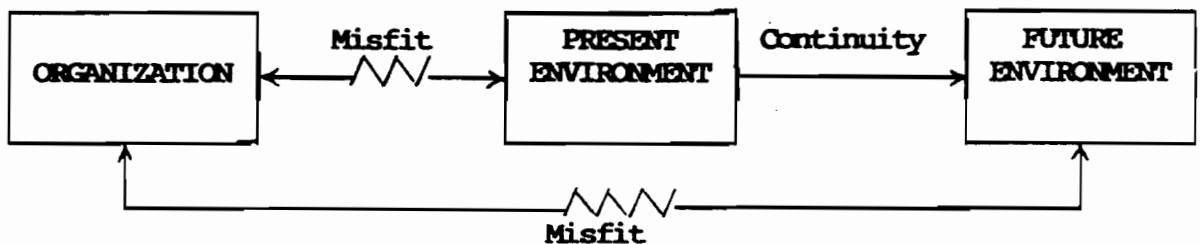
Other corporations anticipating stagnation and even decline as their present markets mature or mutate may reorient their operations into more attractive markets and industries. The business press is full of such forlorn quests for renewed vitality through reorientation strategies:

- Monsanto's move away from commodity chemicals to proprietary, patented products (WSJ, 1983f);
- General Electric's shift from traditional electric products to high technology (computer services, factory automation) (Fortune, 1983b);
- Sears, Roebuck's invasion of the market for financial services (WSJ, 1981);
- Philip Morris' aggressive entry in the beer industry (through Miller) and in the soft drink industry (through Seven-Up);
- Eaton's change from reliance on trucks and other vehicle parts, to electronics, factory automation machinery and fluid power systems (BW, 1983e);
- Pillsbury's shift to fast-food and restaurant chains (Quinn, 1980);
- Gould, Inc. which recently, and symbolically, sold its battery operations, the very foundation of a corporation which now operates 57 plants in 11 countries to produce and sell electronic equipment;
- Imasco's, formerly Imperial Tobacco, into fast food restaurants and retail drug stores (Commerce, 1983)

- Philip's shift towards high tech products (BW, 1983f)
- Cincinnati Milacron from metal bender to supplier of new robotic technology (WSJ, 1983g);
- U.S. Steel's redeployment of assets (Marathon Oil, etc.) (WSJ, 1983h);
- Singer's expansion into aerospace (BW, 1983g).

Because the environment in which these organizations presently operate does not provide a future with reasonable prospects for growth and profitability, they are seeking to voluntarily move to market environments offering more promise and potential. In such a reorientation of activities, the firm must manage a breach, or discontinuity, between its present and future state.

#### Case IV: Turnaround and Revitalization



The organization is in a state of more or less severe misfit with its present environment. Its performance may range from the merely mediocre to the terminally dismal. Present circumstances may provide an accurate harbinger of a future for which the firm is also ill prepared.

The possible causes of this misfortune are legion. However, unfounded belief that Case I or Case II prevailed, or failure to diagnose in time its Case III predicament, would inevitably bring an

organization to a Case IV situation. Then again, some fortuitous event, may have quickly and radically altered the firm's context, throwing the organization into disarray.

The business press reverberates with accounts of heroic efforts to salvage and turnaround large organizations. To the Chrysler and Massey-Ferguson of earlier times, have been added scores of large businesses: International Harvester, American Motors, Montgomery Ward, AM International, Geico, Clark Equipment, A & P, Braniff, Pan-Am, Boise Cascade, Allis-Chalmers, Dome Petroleum, Eastern Airlines and so on!

For some corporations, bankruptcy is not the issue, but continued, mediocre results have led to energetic actions to revitalize their performance in their present markets. Recent examples of businesses undergoing such a process would be: Prudential-Bache Securities (WSJ, 1982b) Continental Corp. (WSJ, 1983a), Corning Glass (WSJ, 1983b), Burroughs (WSJ, 1982a), Goodyear (WSJ, 1983i), Sears' retailing division (Fortune, 1983b), J.C. Penney (WSJ, 1983j), Westinghouse (BW, 1983a), Sherwin-Williams (WSJ, 1983c).

Whether the situation calls for revitalization or turnaround actions hinges on the severity of the problems, the imminence of the corporation's disintegration. There is a degree of difference between a Burrough's or a Westinghouse's lackadaisical profit performance, sagging market share and groping adjustment to changing markets on the one hand, and a Chrysler, Massey-Ferguson or International Harvester which have come (and for some, remain) at the brink of bankruptcy. A turnaround situation should refer to a corporation that has experienced losses that will cause its extinction if improvements are not swiftly achieved.

Of these four diagnostic cases, the latter two will very likely call for strategic actions that are unprecedented in the firm. The rate of such actions and their degree of novelty will vary according to the severity and urgency of the situation. These strategic changes may not qualify as radical if they can be implemented effectively without significant changes in the firm's culture.

Change always brings forth some modifications of old habits, customary procedures and familiar ways of dealing with situations. These are the unavoidable but quite surmountable obstacles to effective change.

However, it is a different matter when intended changes in goals, strategy, and ways of doing business will not succeed unless accompanied by cultural changes; that is, the new strategy to be successful requires changes in the fundamental assumptions, worldviews, values and beliefs that are taken for granted, widely shared and cherished in the firm. Change is radical when it is aimed, not only at the formal properties of the organization (its market strategy, organization structure and management systems), but also, out of necessity, at its root values and sources of meaning, that is, at its culture.

A radical change, or revolution, is above all "change in the core value orientations" (Johnson, 1966) of a corporation. It "constitutes a fundamental change in world view, an abrupt transformation of one conceptual scheme, one set of organizing principles for another" (Kramnick, 1972).

Cases 3 and 4 do often lead to decisions which perturb "normal" ways of operating. They call for actions that challenge tacit assumptions about how to manage and function in the firm; they may disturb the order and structures that make organizational life and events understandable and predictable. In such circumstances, a firm must manage a strategic discontinuity. Its leadership must carry out a cultural revolution in order to replace present beliefs, assumptions, values and symbols (at least some of them) with a culture that is supportive of new goals, strategies and ways of doing things.

### 1.3.2 The Demand for Change

Radical strategies then are attempted as a result of demands made on the organization, demands which, as decoded and interpreted by the organization's leadership, cannot be accommodated by a continuous process of adaptation.

The conceptual model of radical change proposes that the organization/environment interaction be examined in terms of the nature and characteristics of the "demand" for change emanating from the environment on the one hand, and in terms of the "supply" or capability for change of the organization on the other. Each component has its own dynamics but they are also joined in a dyadic relationship exerting influence on each other to a varying extent.

That is, depending on the type of "market", the demand side may come as a brutal and changing datum to which organizations (usually small and numerous) must adapt, or they are eliminated; the equilibrium of the system is attained when a stable number of firms have adjusted to environmental demands.

However, in other more oligopolistic "markets", the "suppliers" (usually large and few) may have considerable influence on demand. Actual demand then is determined by the conjunction of more or less predictable events and the suppliers' attempts at bending environments to their advantage and preferences.

As must be obvious by now, this part of the conceptual model shares a number of viewpoints, widely discussed and accepted in the organizational theory and strategy literature:

1. Organizations are "bound up with the conditions of their environments" (Pfeffer and Salancik, 1978). The corollary of this statement is that the felt need for organizational change arises out of real or enacted changes in the organization's environment and implies that any understanding of the pattern of organizational change requires an in-depth analysis of the pattern of change in the environment (Lawrence and Lorsch, 1967; Nystrom, 1974; Hedberg and Starbuck, 1977; Berg, 1979; Rherman, 1973; Campbell, 1967; Hannan and Freeman, 1978; Aldrich, 1979; Weick, 1969; Pfeffer and Salancik, 1978; Chandler, 1962; Ansoff, 1977; Porter, 1980).

2. To an increasing extent, organizational environments are characterized by technological transition, pervasive maturity of markets emerging innovations, in brief, by discontinuity (i.e., changes in direction not only in magnitude) (Nystrom, 1974; Hedberg and Jönsson, 1977; Rhenman, 1973; Miller, 1980), ambiguity (March and Olsen, 1976), stagnation (Hedberg, 1979; Thurow, 1980), and complexity (Schröder et al, 1967).

3. Organizations are subject to social control, their legitimacy judged, their performance rewarded or eventually punished by society (Rherman, 1973; Pfeffer and Salancik, 1978; Ansoff, 1979; etc.).

4. Organizations have within themselves resources and methods for withstanding the destructive effects of environments and delaying adaptive changes, such as:

- a) Overcapacity resource buffers (Thompson, 1967; Miller and Mintzberg, 1974; Hedberg, 1974, 1975; Rhenman, 1973; Starbuck and Hedberg, 1977).
- b) Insulation strategies from the environment, or in Leavitt, Dill and Eyring's (1980) terminology, they may employ "imperviousness" strategy, by which organizations build shells to protect their existing forms, values and resources.

5. Organizations may engage in activities both to adjust to their environment and to attempt to change those environments by negotiation or domination strategies.

In this context, where "suppliers" have to know (or think they do) their demand function and may act to change it, the potential for disequilibrium is increased substantially because of:

- misconstruing the real nature of the demands;
- imperviousness to new types of demand, which may go undetected for a considerable period of time before threatening the survival of the organization;
- over-reliance on the organization's capacity to modify demand so as not to tamper with supply capability;
- atrophied "supply" capacity as adjustment to new demands come from buffers of slack resources.

### 1.3.3 An Integrative Schema

The conceptual building blocks introduced to this point, are brought together in figure 1-4. They define a comprehensive view of radical change situations and a framework for the study of radical strategy formulation and implementation.

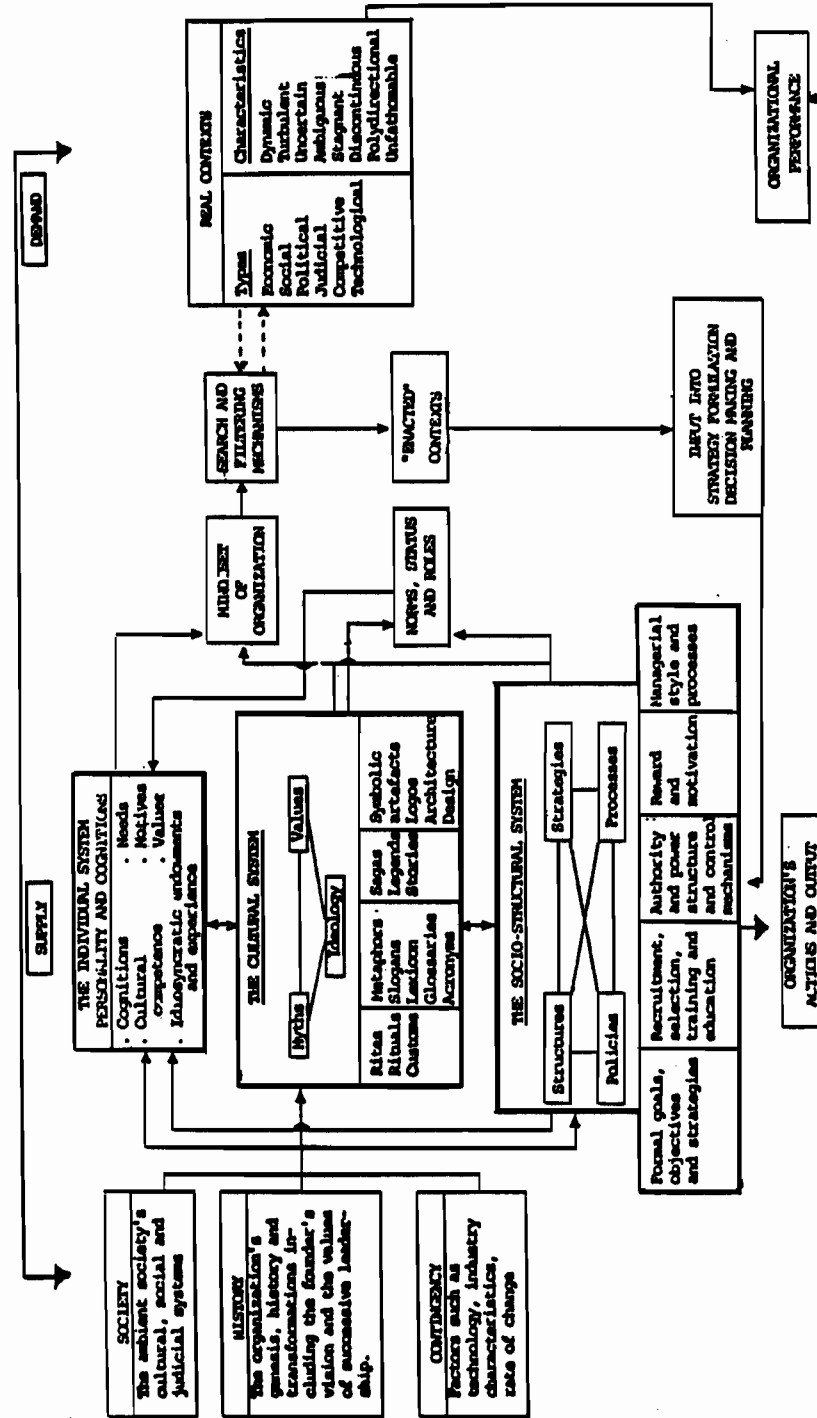
As the empirical part of this thesis focuses on a turnaround situation, the processes through which organizations come to that unfortunate state and the difficulties in redressing such situations, will be described with the assistance of the conceptual framework worked out in previous sections:

1. In turnaround situations, the relationship between the organization and its present market contexts [linkage (a)] is severely deficient. This misfit may result from one or the other of three processes.
  - a) Discontinuous, sudden, momentous changes in the organization's relevant environments have led to unprecedented demands for change
  - b) Gradual, evolutionary changes in environmental circumstances have gone undetected because of a faulty enactment process, or have gone unattended because of inertia, paralyzing feuds, etc. among key actors; eventually, the cumulative lags in adjusting to evolving contexts become inescapable and pressing,



Figure 1-4

# CONCEPTUAL FRAMEWORK FOR RADICAL CHANGE IN ORGANIZATIONS



requiring that discontinuous changes be rapidly implemented within the organization. The very survival of the organization is threatened.

- c) Although the environment has been fairly placid, poor management or internal schisms (Morgan, 1981) have eroded the capabilities of the organization, have reduced its supply capacity, and brought about organizational decay and a worsening misfit to its market contexts.
2. The foregoing events will lead at some point (and often under a new leadership) to a frenetic search for solutions, for a better strategy; however, this quest is structured by the cultural and structural attributes of the organization, by a mind set that defines reality and channels efforts at finding options. Actions, dramatic and even appropriate, may be taken to correct the situation; but these attempts at coping with the new realities are often limited to tinkering with the socio-structural system of formal goals, strategies, policies and structures.
  3. These sudden and major modifications to the socio-structural system may be incompatible with the extant cultural system of the organization. They may exceed the capacity and rate of change in the cultural system of assumptions, values, expectations and meaning structures secreted over an extended period of time.
  4. As a result, the socio-structural and cultural systems become dissynchronized and dissonant; they cease to provide support and legitimacy to each other. This lack of internal coherence further reduces the internal efficiency of the organization in coping with the crisis, induces disorientation and disarray among members. The implementation of the "new" formal goals, strategies, policies and structures, is lackadaisical and ineffectual.

A radical change strategy is required to salvage an organization undergoing this process; that is, a resynchronization of the socio-structural and cultural system must be achieved. Whatever changes have to be made in goals, strategies, policies and structures, these must be concurrent with changes in the organization's cultural system. The cultural system must evolve towards the type of culture which is required by the new circumstances and which is supportive of the new goals and strategies.

This concept of radical change in organizations, if valid, has profound implications for the nature of strategy formulation and for the process and rate of strategy implementation. The likelihood of success of any strategic change will be highly contingent upon the nature of the organization's culture and the formulators' and implementors' subtle understanding of the tempo and mechanisms of radical change.

Incidentally, it might be pointed out that what is commonly called "radical strategies" or "radical changes" may not be radical at all. For instance, very abrupt major changes in formal goals and strategies thrust upon an organization without any specific change strategy aimed at its cultural system, should be termed "violent" but certainly not radical. The present analysis also underlines the fact that despite the dire situation of an organization, the most "violent" strategy may be ineffective, while a radical strategy which may appear, on the surface, as much less "violent", might be quite appropriate to the circumstances.

In this context, radical change has the very specific meaning of change which fosters a new equilibrium where a more functional and environment-compatible system of formal goals, strategies, structures and policies, is supported by a cultural system that is fully consonant and synchronized with it. Thus, radical or revolutionary change points to the nature, importance, and rate of change required in the organization's cultural system to achieve its desired strategic turnaround.

These processes, the strategic and tactical actions to get a radical strategy formulated and implemented, are the concern of this thesis.

Equipped with an explicit and comprehensive model of radical change, I shall examine the attempts of an organization to extirpate itself from a troubled situation. This close study of a case in point will contribute to the enrichment and/or modification of the conceptual model and to some statement about the processes for formulating and carrying-out a radical strategy in a large, complex organization.

The next three chapters provide a detailed discussion of some of the conceptual foundations of this model. The reader at peace with the articulations of the model can skip to chapter 5 which deals with methodological heuristics.

## CHAPTER - 2

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### THEORIES OF REVOLUTION IN POLITICAL SCIENCE

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## 2.1 Introduction

This chapter summarizes the various schools of thought on the topic of revolution in political science.

The review of this literature has two purposes: 1) to present the various propositions advanced so far as to how and why radical changes come about at the societal level; 2) to identify and position a theory which seems to be relevant to the articulation of a model of radical change in organizations.

## 2.2 The Notion of Revolution

The political science literature on revolutions is made up of a large body of works, attempting to clarify and elucidate the phenomenon, but no single conceptual model or theory of revolution receives unanimous or even widespread support.

Proposing a very general definition of the term "**revolution**", the dictionary informs us that we are talking about "a complete or drastic change of any kind".

However, that present-day meaning of revolution is a creation of the 18th century. Before this time, "**revolution**" was not associated with the idea of radical change or innovation, but as a synonym for "restoration" or "return" to an older order that had been violated. By the 19th and 20th century, the term gains its contemporary connotation, but the concept remains loose and ill defined despite many attempts at tightening up the concept.<sup>1</sup>

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<sup>1</sup> A. Hatto: "An Inquiry into the Usefulness of an Historical Term", Mind, LVIII, No. 232 (October, 1949), 495-517.

### 2.2.1 Characteristics of the Revolutionary Change

Recent efforts to define revolutions (e.g., Kramnik, 1972) have centered on three main aspects of revolutionary political change: their mode, impact and purpose.

Revolution is considered as a mode of political change through violent means. This characteristic is the most often cited in the literature (Arendt, 1963; Wolin, 1973; De Jouvenal, 1968; Davies, 1962; Eckstein, 1965; Huntington, 1968; Johnson, 1966). Here are two samples:

"Revolution is any resort to violence within a political order to change its constitution, rulers or policies." (Eckstein, 1965)

"Revolution is a purposive implementation of a strategy of violence in order to effect a change in social structure." (Chalmers Johnson, 1966)

But as Kramnik (1972) and other students of revolution have pointed out, there are several problems with the characterization of revolution as a violent mode of political change. It denies the possibility of non-violent revolution and it precludes decisive and major innovations and change, but which are not violent, from being labeled revolution.

"If we mark", Kai Nielsen (1979) notes, "the distinction between violent and non-violent radical activity around the refusal of the non-violent to injure or tolerate injury to his antagonists, we can see that there is no conceptual reason why a revolution must be violent, though there may very well be substantial empirical justification for believing that all revolutions be, in fact, violent. Thus in these terms, it is a mistake to characterize a social and political revolution in such a way as to make 'a non-violent revolution a contradiction' in terms."

A second dimension of political change, around which the discussion has tended to center is that of impact level.

The term "**revolution**" is and should be used only to describe movements with goals involving far-reaching changes in social structure, class domination, institutions and ideologies.

Using David Easton's (1959) distinction among three levels of socio-political organization (i.e., government, regime and community), Chalmers Johnson (1966) conceives of revolution as "violence directed towards one or more of the following goals: a change of government (personnel and leadership), of regime (form of government and distribution of political power) and of society (social structure, system of property control and dominant values)".

This definition draws a distinction between a seizure of power that leads to a major restructuring of government or society, to the replacement of the former elite by a new one and to changes impacting on the complex set of social, economic and cultural values and institutions, and the coup d'état, involving no more than a change of ruling personnel.

A third dimension which is frequently used to characterize revolutions refers to the peculiar direction and purposive orientation to the change. In these terms, revolution is defined as a "sustained and self-conscious effort to reconstruct society along theoretical principles provided by some vision of an ideal order, an ideology" (Kramnick, 1972).

As Kramnick indicates, the very essence of a revolution is to bring about fundamental changes in culture, in the values and the ways people experience the world.

Indeed, according to Huntington (1968), "a revolution is a rapid, fundamental and violent domestic change in the values and myths of society, or, as Johnson (p.66) emphasizes in his theory of revolution based on the notion of a value-coordinated social system: "what revolution changes above all are the core value orientations of a society and the purposive attempt to achieve this takes the form of a value-oriented ideological movement".

Similar views are held by Crane Brinton (1938) and Anthony Wallace (1970). Thus, Brinton writes:



"...society then appears as a kind of network of interactions among individuals, interactions for the most part fixed by habit, hardened and perhaps adorned by ritual dignified into meaning and beauty by the elaborately woven strands of inter-similar noble beliefs (in other words, meta-values). Now sometimes many of these strands or noble beliefs, some even of those resulting from habit and tradition, can be cut out, and others inserted. During the crisis period of our revolutions some such process seems to have taken place."

Many authors go so far as to grant primary importance to this dimension in their concept of revolution. Whatever else a revolution might be, it is foremost a form of social change that requires radical cognitive changes, changes in the very way individuals perceive and experience reality; in other words, a revolution constitutes a fundamental change in world view, and abrupt transformation of one conceptual scheme, one set of organizing principles for another (Kramnick, 1972)<sup>2</sup>.

In this context, the notion of ideology takes a particular relief and resonance.

### 2.2.2 The Function of Ideology

Ideology is an important prerequisite of the revolutionary situation. As Crane Brinton (1938) puts it: "No ideas, no revolution." No revolution can ever occur without an ideal, a program or an alternative social and political mode. Ted Gurr, in his study "Why Men Rebel" (1973), sees ideology as a variable intervening between relative deprivation and the potential for political violence. In other terms, ideological factors serve to politicize the potential for collective violence caused by relative deprivation. He asserts that ideologies are "cognitive maps of social causality and responsibility" and "frames of reference for interpreting and acting on discontent" (p. 193).

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<sup>2</sup> There is an obvious and striking similarity between this perspective on social revolutions and Kuhn (1970)'s definition of revolution in science as a fundamental change in the basic constitutive norms or generative principles in that area, i.e., a change in the governing "paradigm" (Kuhn, 1970).

"The greater the discontent of members of a society, the greater is their susceptibility to new ideologies that assert the righteousness and usefulness of political violence" (p. 198).

He further (1973) asserts that: "Frameworks of consciousness develop when men's ideational systems prove inadequate to their purposes and particularly when they become intensely and irremediably discontented; because goals are unattainable by old norms, they are susceptible to new ideas which justify different courses of action" (p. 199).

Then ideology, according to Gurr, fulfills two main functions:

- 1) it provides doctrinal justification for political violence;
- 2) it attempts to challenge and compete with any other theories which may provide alternative programs.

For Chalmers Johnson (1966), the revolutionary ideology is "an alternative value structure which becomes salient only under disequibrated conditions". He sees ideology as a "challenger" or an "alternative paradigm" of values which has the potential to evolve into a new value structure which revitalizes and resynchronizes the social system. Johnson leans heavily on Wallace (1962-1970)'s analysis of revitalization movements when he outlines the three main functions of a revolutionary ideology.

First, he contends that ideology provides a new structure of values and goals, a "new value-environmental symbiosis" or a "goal culture", that competes with the existing conceptions of reality. "Without an alternative value structure, the old system will simply destroy itself as the members persist in their familiar but now inappropriate roles, norms and status".

A second function of the "revolutionary ideology" in Johnson's view is to provide the "program for transforming" the system, i.e., the ideologically-defined methods for achieving the goal culture or what Wallace calls the "transfer culture". The transfer culture is defined as a system of operations which, if fully carried out, will transform the "existing culture" into the "goal culture".

However important the "goal culture", as a world image persuasive enough to elicit and drive goal-oriented behavior, the actual transformation of the society will fall short of the goal if its formulators do not possess the knowledge required to translate it into collective action; in other terms, if they do not define an appropriate "transfer culture".

### 2.3 The Nature and Causes of Revolutions

We shall now briefly summarize the varied attempts found in the political science literature, at explaining the nature and origins of revolutions.

The review will lean heavily on the excellent essays on "Theories of Revolution" by Goldstone (1980), Stone (1966), Kramnick (1972) and Zagorin (1973), but it will also draw directly from the major works on revolution.

The first contributors to the field were the grand theorists of the previous century and early 20th century: de Tocqueville, Durkheim, Weber, Marx and subsequent Marxist theorists of revolution, who range from technological determinists such as Nikolai Bukharin to political strategists such as Lenin and Mao, Lukacs (1971) and Gramsci (1971). Their influence on more contemporary theorists is still considerable, particularly in the case of Marx.

Marx's more general statement about revolutions as class-based movements arising from objective structural conditions of societies ridden with conflicts, is still a significant contribution. In Marx's theoretical scheme, revolutionary change takes its source in the fundamental contradiction in the mode of production: dissynchronization between the forces of production and the social relations of production. Revolution which is accomplished through class action has the role of replacing the existing mode of production by a new one; that is, of installing a new system of social relations of production (i.e., a new form of division of labor and a new system of property control) that will correspond to the more advanced level of development of the forces of production which are brought about by technological development (means of production, tools and materials). Thus, the appropriate conditions for the further development of society are created.

However, we shall not examine in details these theories of an earlier age but review the contemporary contributions in political science theory. These, as we have already noted, assume and integrate earlier theories and influences into their formulations. In accord with the conventional wisdom (Goldstone, 1980), we shall divide the authors into three distinct generations of contributors.

### **2.3.1 The First Generation**

This generation best represented by the works of Le Bon (1913), Ellwood (1905), Sorokin (1925), Edwards (1927, 1970), Pettee (1938) and Brinton (1938), seeks to identify the pattern of events found in pre-revolutionary situations and in revolutions themselves.

For instance, Crane Brinton (1938) proposed a model based on a series of uniformities found in the pre-revolutionary situations of the four great revolutions: English, French, American and Russian. He identified a set of factors common to these four cases, such as: (1) an economically advancing society; (2) a growing class and status antagonism; (3) an alienated intelligentsia; (4) a psychologically insecure

and politically inept ruling class; and (5) a governmental and financial crisis. He also noted several patterns of events that were common to all cases studied: the development of an alternative government; the presence of successive moderate and radical phases of the revolution; and the emergence of a charismatic, authoritarian leader.

A frequent criticism addressed to the first generation theorists of revolution is that they failed to provide a broad theoretical perspective.

### 2.3.2 The Second Generation

More ambitious, the second generation theorists tried to develop a number of theories of revolution which would provide useful analytic and predictive tools. This group of scholars may be regrouped into three distinct intellectual currents and traditions in their approach to the study of revolutions:

A) **psychological theories of revolutions**

B) **value-coordinated-system theories**

C) **political conflict theories.**

A) **Psychological theories of revolutions.** Best represented by the works of Davies (1962), Gurr (1973), Feierabend (1972), Schwartz (1971) and Geschwender (1968), the scholars in this group tend to explain revolutions in terms of people's "**frustration**" or "**deprivation**" relative to some set of goals. If people are intensely frustrated, because of the long-term effects of modernization and urbanization, short-term economic reversals or closure of political or economic opportunities to certain groups, then the fundamental conditions for revolution exist.

Thus, Ted Gurr (1973), who is the most representative theorist in this vein, put forward a conceptual causal model of the psychological and societal determinants of the potential for collective violence. His

model considers "**relative deprivation**"<sup>3</sup> of people as the independent variable and necessary precondition for civil conflict.

The dependent variables are the magnitude of political violence (scope, intensity and duration) and the forms of political violence (turmoil, conspiracy and internal war). The intervening variable is the potential for collective violence in a specific society. Each of these variables is, in turn, associated to specific circumstantial or contextual factors.

B) **Value-coordinated system.** (Johnson, 1966; Smelser, 1963; Hart, 1971; Hagopian, 1974). Their theoretical leitmotiv is that revolutions are violent and purposive ideological movements which aim to effect a radical change in the structure of a social system that suffers from severe disequilibrium. Indeed, Johnson who is the best representative of this group leans heavily on the Parsonian tradition of sociological analysis, asserting that "the analysis of revolution intermeshes with the analysis of viable, functioning societies".

Indeed, using Parson's arguments that stability and instability are related configurations in any human group and that the analysis of one is simultaneously the analysis of its antithesis, Johnson proposes that **the primary determinant of revolutions is to be found in the dissynchronization between the values and the social structure of a social system.** This leads to the system's instability, disintegration and potential for revolution (Johnson, 1966).

Whenever pressures of an endogenous or exogenous nature<sup>4</sup> impinge upon a social system in an intense and unprecedented manner, its value system may become dissynchronized, unable to provide goals for action and explanations of social reality. People become disoriented and

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<sup>3</sup> Relative deprivation is defined as the actors' perceptions of discrepancy between their value expectations and their environment's apparent value capabilities.

<sup>4</sup> For a discussion of these pressures see Chapter 1, p. 12.

susceptible to conversion to an alternative value system, or revolutionary ideology, which purports to explain and change a problematic social situation.

Every social system has within it the capacity to cope without disruption with a certain quantity of changes. However, if the change is both rapid and profound and the elite is unable to accomplish the resynchronization between the social system's values and the environment, revolution, rather than evolutionary change becomes possible.

According to Johnson, there are numerous social pressures created by a disequilibrated social system. Rises in the number of crimes and mental illnesses, scapegoating, alcoholism, venality among public officials, hoarding, increased production and circulation of ideological constructs, all are indicators of such pressures during this period. Of all the characteristics of the disequilibrated system which may lead to a revolution, the elite's "power deflation"<sup>5</sup> and "loss of authority"<sup>6</sup> are most direct contributors.

Thus Johnson states:

"When confidence has evaporated to the extent that the exercise of power is futile, when the authority of the status holders entrusted with supervision and command rests only on their monopoly of force, and when there is no foreseeable prospect of a processual change in this situation, revolution is at hand." (1966, p. 32)

**Elite behavior.** The integration of the system depends increasingly upon the maintenance and deployment of force by authorities. As a consequence, power deflation and loss of authority will ensue and the

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<sup>5</sup> "The fact that during a period of change the integration of a system depends increasingly upon the maintenance and deployment of force by the occupants of the formal authority statuses" (Johnson, 1966, p. 91).

<sup>6</sup> "Such a loss means that the use of force by the elite is no longer considered legitimate, although it does not necessarily mean that a revolution will occur at once" (Ibidem).

elite's behavior in those circumstances is viewed as a fundamental datum. Elite's policies often range from the "barely adequate" to the "demonstrably incompetent", which result from the elite's isolation, the loss of its manipulative skill, of its self-confidence and cohesion.

Revolution only becomes probable if special factors intervene: the "precipitants" or "accelerators"<sup>7</sup>, the most common of which are the emergence of an inspired leader, the formation of a secret, military, revolutionary organization, the defeat of the armed forces in a foreign war. The principle which emerges from his analysis is that "power deflation", plus "loss of authority", plus an accelerator produce revolution.

Johnson also believed that the macroscopic study of revolutions was insufficient, that revolutions' most critical changes were to be found in the cognitive reorientations of individual members of a society. He therefore attempted to integrate the stages of systemic change during a revolution with the stages of personality change. In this, he was much influenced by Wallace's model of cultural revitalization and its careful delineation of the "deliberate, organized attempts by some members of a society to construct a more satisfying culture by rapid acceptance of a pattern of multiple innovations" (Wallace, 1962).

The Johnson-Wallace's revitalization or revolutionary process is apt to happen when a socio-cultural system has gone into a state of disorganization as a result of one or a combination of forces which created a disequilibrium in the system.

### The Stages of the Revitalization Process

In general, revitalization processes go through the following stages:

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<sup>7</sup> They are the pressures, often easily sustained in functional societies, which when they impinge on a society experiencing power deflation and a loss of authority, immediately catalyze it into insurrection.



- 1) a steady state, characterized by a moving equilibrium. Change takes place, but relatively slowly and it is change of the evolutionary variety;
- 2) a period of increased individual stress. The socio-cultural system is pushed out of equilibrium by various forces such as war, acculturation, internal decay, etc. The culture is perceived as disorganized and inadequate. Stress and anomie are the preponderant feelings. A likely indicator of stress during this period is the increased production and circulation of ideological constructs;
- 3) a period of cultural distortion. Individuals try to restore personal equilibrium by adopting socially dysfunctional expedients such as: scapegoating, black market, alcoholism, etc. All these lead to a continuous decline in the degree of organization. Different ideological interest groups begin to appear;
- 4) the revitalization, or revolution whereby society attempts to return to a functional steady state, is made up of roughly six stages:
  - a) formulation of a code or the creation of a revolutionary ideology. An individual or group constructs a model, "a goal culture". Between the existing culture and the goal culture, there is a "transfer culture" which is defined as a system of operations that once carried out will produce the transformation of the first into the second;
  - b) communication. The code is transmitted to other people (to the entire society or to only a certain group seen as future participants in the "transfer" and "goal culture") with the aim of making converts. The code is offered as a means for achieving a more highly organized system. The formulators themselves will have experienced, what Wallace calls "a maze-

way resynthesis" - a stable, irreversible conversion. The converts, in their turn will undergo a "hysterical conversion";

- c) organization and adaptation. People stimulated by an ideology organize themselves as a hierarchically-structured revolutionary association. It also consists in the formation of converts differentiated between two groups: disciples and mass followers. The disciples increasingly become "the executive organization" which has the role to implement the program, to defend it and to punish any deviation from it.

adaptation. It consists largely in making changes to the code to remove inconsistencies or failures discovered in the original code;

- d) cultural transformation which is the overt attempt to implement the "transfer culture". It occurs and is successfully achieved when: (i) a substantial number of people in the society has adhered to the new code; (ii) internal social conformity has been obtained; (iii) a successful economic system has evolved;
- e) routinization. The process now shifts the emphasis from innovation to maintenance. Myths and rituals serve to preserve and perpetuate the roots and values that have created the new culture. Stable decision-making centres are also designed. The surest sign that routinization is occurring is the elimination of those disciples and hysterical converts who are not able to reverse their revolutionary commitments;
- f) the new steady state. The full cycle has been run, the culture "routinized"; the tempo and nature of change are now typical of stable cultures.

Johnson-Wallace's discussion of revolution, by combining two perspectives - that of social systems theory and that of psychology of culture change - provides the possibility of measuring the degree to which a system is disequilibrated by direct observation of human behavior.

C) Political-conflict theories. Revolutions viewed in this light (Tilly, 1978; Huntington, 1968; Stinchcombe, 1965) result essentially from the existence of interest-group conflicts which cannot be resolved within the current political institutions. Contrary to the psychological theories of revolution, the political-conflict model asserts that the existence of discontented people is a necessary but not sufficient condition for political violence to emerge. Revolution, as a special case of collective action, requires that frustrated people become part of an organized group which has access to some resources and which aims at an eventual political sovereignty over a population. From this vantage point, the causes of a revolutionary situation are: (1) any long-term societal trends that shift resources from some groups in society to others: (2) medium-term occurrences, such as the proliferation of revolutionary ideologies and the increase of popular discontent.

The conceptual framework developed to analyze revolution as a special case of collective action, combines two models: a polity model, the elements of which are governments and groups contending for power, and a mobilization model, which contains the underlying factors in collective action, such as degree of organization, the quantity of resources under control, group interests. Successful revolutions depend upon the emergence of multiple sovereignty and the formation of coalitions between members of the polity and contenders for power.

The resource mobilization theory, known under various labels such as: political-process theory, theory of group dynamics, collective action theory, to quote only a few, finds its origins in John Stuart Mill and the utilitarians' work, in that it regards all action as based on the rational pursual of self-interest.

**Conclusion:** Despite the different emphasis in the three approaches belonging to the second generation theorists of revolution, there are nevertheless, as Goldstone (1980) points out, striking structural similarities in the models they propose.

Thus, the revolutionary process is fundamentally seen as composed of two steps:

First, **a pattern of events** such as war, technological change, value changes, new ideologies, economic changes, new interest groups, that affect critical variables such as "the cognitive state of the masses", "the equilibrium of the system" or "the magnitude of conflict and resource control of competing interest groups", and create the potential for the emergence of revolutionary change.

Second, **a number of incidental factors** (i.e., precipitants or accelerators) that translate a potential revolutionary situation into its actualization. Table 2-1 outlines the general model of the second generation theorists as summarized by Goldstone (1980).

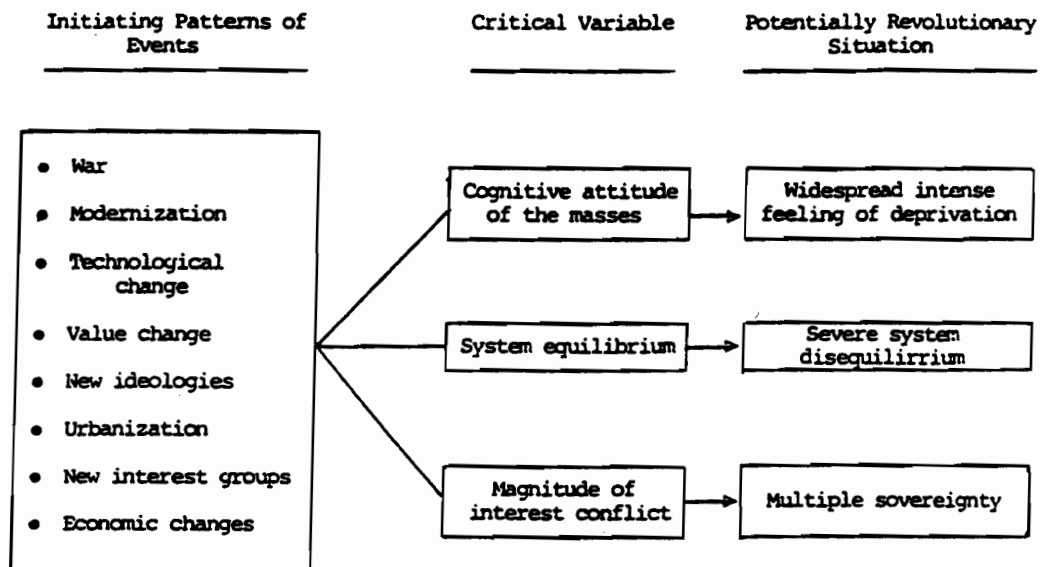
### **2.3.3 The Third Generation**

Different from the second generation theorists, the third generation students of revolution (Trimberger 1978; Skocpol, 1979; Eisenstadt, 1978) do not see a potential revolutionary situation as developing from a broad pattern of events. Rather, they require the existence of a number of specific economic and political structural conditions prior to the development of any strong pressure for social change.

Thus, these theorists generally agree that a revolutionary crisis takes its source in a cluster of factors, such as (1) the incompatibility of the State's goals (e.g., the goal of modernization of the industrial base with the society's political and economic structure); (2) the intrusion of international pressures into the internal workings of the society. (For instance, increasing international economic and military

Table 2-1

SECOND-GENERATION ANALYSES OF REVOLUTION



Source: Goldstone (1980).

competition which creates a drive toward greater centralized control of resources, and which again brings the State into opposition with the economic, agrarian and political structures of their societies); (3) the structure of peasant communities; (4) the coherence or weakness of the armed forces and (5) the variables affecting elite's behavior.

About this last factor on which these authors are very prolix, they argue that the range of elite behavior is strongly influenced by existing structural conditions such as "ties to other elites" (Eisenstadt, Skocpol) or "separation of bureaucratic and military officials from the landlord and merchant classes" (Trimberger). Thus Eisenstadt formulates the hypothesis that "elites with close ties to other elites are more likely to build relatively pluralist 'open' post-revolutionary politics, while isolated elites, if victorious in a revolutionary situation, will tend to form coercive 'closed' regimes".

In the same light of thought, Skocpol proposes that "isolated or marginal elites are likely to have the greatest inclination to pursue radical revolutionary policies, while the traditional elites are likely to stop the State's attempts to achieve the slightest reform".

Finally, Trimberger, in her attempt to explain one particular type of revolution, that is, the "revolution from above", identifies five critical factors required for the emergence of this specific type of revolutionary process, among which one finds "the existence of a distinctive kind of elite structure, namely the separation of bureaucratic and military officials from the landlord and merchant classes". She argues that in a centralized bureaucratic state where the officials are represented by professionals with a service tradition but lacking a vested interest in the current economic structure, the reaction to international, political and economic pressures is likely to be "a revolution from above".

Among all third-generation students of revolution, Eisenstadt is the only one to emphasize, and it is an original contribution, the role played in the genesis of revolutionary change by "the cultural orienta-

tion existing in a society at a given moment". He argues that "societies coordinated by a cultural order that recognizes a high level of tension between the transcendental and the mundane order, a relatively strong this-worldly orientation for resolution of the tension and for a high level of commitment to these orders which are not taken as given, is likely to have a greater tendency toward revolutionary change (i.e., coalescent change)".

In conclusion the third-generation theorists of revolution identify certain preconditions of State and elite structure that must be present for a revolutionary situation to arise. However, they all agree that there is no limited set of preconditions, but rather a large number of combinations of structural patterns and international pressures, which may lead to revolutions.

Theirs is a concept leading away from easy generalizations about that most complex of social processes, a revolution.

## 2.4 Conclusions

The brief survey of the social science literature on the concept of revolution has provided us with a number of interesting insights into the nature and causes of this phenomenon, at the societal level. In order to conceptualize a model of radical change in organizations I retained as useful Johnson's theory of revolutions. It seems that his "value-coordinated" model deals in a fruitful manner with a number of critical issues (i.e. the mode of integration between the social and value systems, the relationship between these two systems and their environment, the cognitive reorientations of individual members along with the systemic changes the society undergoes, the possibility of measuring the degree to which a system is disequilibrated by direct observation of human behavior). These issues are of utmost importance for our understanding of the nature, potential and processes of radical change in organizations.

I attempted therefore in this chapter to provide a more detailed account of this theoretical model and position it among the other theories of revolution vying for existence in political science.

## CHAPTER - 3

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### DISCONTINUOUS CHANGE IN ORGANIZATIONS

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### 3.1 Introduction

The goal in this chapter is to investigate within the framework of the theories of revolution, the most comprehensive treatments of radical or discontinuous change in organizations. The conceptualizations dealing directly with emerging discontinuous changes in organizations will be regrouped under two different approaches.

A first and still tentative approach is found in the strategy field's budding preoccupations with turnaround situations and strategic reorientations, in particular in the efforts to identify patterns common to such situations, (Schendel, Patton, and Riggs, 1976; Wyckoff, 1976; Biteman, 1979; Bibeault, 1982). Researchers here examine cases of business turnaround situations and strategic reorientations searching for characteristic phases and processes common to all.

A second and most fertile line of development emerges from what has come to be known as the Swedish school, represented by Hedberg, Rherman, Nystrom, Starbuck, Jönsson, Berg, Stymne. I have also added Ansoff to this group for his most recent contributions show close conceptual affinity to these scholars. Altogether these authors have provided a broader theoretical perspective on the issue of discontinuous change in organizations. The general tenor of their models and theories is informed and influenced by concepts very similar to those found in Chalmers Johnson's analysis of revolutions and Wallace's revitalization processes although no specific references to them are found in their writings.

For example, the seminal concept of revolutions and radical changes as the result of value-environmental dissynchronization and cognitive reorientation is a critical notion found in both sets of works.

Each of these two different attempts at proposing theoretical frameworks to chart, understand, or bring about, radical changes in organizations will be examined in some details, in the pages which follow.

### **3.2 Strategic Turnaround as Discontinuous Change in Organizations**

A rather thin body of publications emerging from the strategy field and dealing with what may be considered drastic, rapid and major changes in organizations - the strategic turnaround and strategic reorientation - contains nevertheless a modicum of insights into the process of discontinuous changes in organizations.

That literature is not abundant but it is now (1984) growing at a furious pace on the specific topic of turnaround strategies; apart from business press accounts, the literature is essentially made up of two articles on a number of cases (Schendel, Patton, and Riggs, 1976; Wyckoff, 1976), two reports on in-depth case studies (Guest, 1962; Tushman, 1974), three articles written from a prescriptive stance (Hofer, 1979; Pearson, 1977; Goldress and Christian, 1976), four books (Eisenberg, 1972; Grinyer and Spender, 1979; Bibeault, 1982; Goodman, 1982) and, one unpublished theses (Biteman, 1979).

In spite of increasing awareness concerning the importance of this topic, no comprehensive and generally accepted conceptual framework of turnaround situations and strategic reorientations has yet been proposed in the literature.

The publications on the subject presently available in the strategy field, reflect two major orientations:

A prescriptive, normative orientation that focuses on the nature and the types of turnaround strategies, on the analytical framework required to decide which type of turnaround strategy should be used in a particular situation, and on ways to design and implement a specific turnaround strategy (Hofer, 1979; Goldress and Christian, 1976; Pearson 1977; Goodman, 1982).

A quest for generalizations through either a comparative examination of descriptive or exploratory case studies to infer the underlying principles, dynamics and structures of turnaround situations. (Schendel, Patton and Riggs, 1976; Wyckoff, 1976; Biteman, 1979; Bibeault, 1982).

### 3.2.1 The Normative Approach to Turnarounds

Charles Hofer (1979) is the first and thus far the only researcher to propose an analytical framework for dealing with turnaround situations and strategies.

Using as a criterion of classification the areas of organizational performance affected, Hofer proposes a typology of turnaround situations consisting of three main types:

1. a turnaround situation that involves a decline in organizational profitability as measured by a decline in net income after taxes, in net cash flows and in earnings per share;
2. a turnaround situation related to stagnation or decline in organizational size or growth. This condition is measured in either absolute terms, through an index such as "dollar sales", or in relative terms, through the "decrease in the market share" of the firm. This second measure is increasingly used because of the recent but controversial research findings (PIMS) linking profitability to relative market share;
3. a turnaround situation involving organizational asset utilization.

According to Hofer, this last type of turnaround situation although least explored and publicized in the past because of its very nature (that is, it was considered that poor performance with respect to asset utilization did not pose the same threat to organizational survival as poor performance in other areas) is likely to receive greater attention from top management in the 1980's given the increasing constraints on organizational resources and sluggish economic performances.

Another contribution of Hofer to our understanding of the nature of the turnaround situation is his differentiation between two broad types of turnaround actions that may be taken at the individual business (SBU) level. Strategic turnarounds, which consist of strategy modifications wherein changes in performance are viewed as a derivative of the strategy re-orientation, and operating turnarounds, wherein the immediate focus is on modifications of performance, regardless of whether the actions taken to achieve this have any bearing (positive or negative) on the long-term strategic health of the business.

The distinction between strategic turnarounds and operating turnarounds, is very pertinent to our inquiry. In our opinion, the difference goes beyond the different priorities and trade-offs between short-term and long-term actions suggested by Hofer. The two broad types of turnaround strategies are substantially different in character; the fundamental aspect that distinguishes them most is related to the different level and magnitude of impact they have on an organization.

Thus, the strategic turnaround, to which we find an equivalent in the concept of "discontinuous" or "revolutionary change" in the organization theory literature is the only type of turnaround actually, surveyed by researchers of the descriptive bent (e.g., Schendel, Patton, Riggs, Wyckoff). It implies fundamental or revolutionary changes in the strategy, structure, personnel and ideology of an organization. It is to this kind of turnaround that Ansoff (1976) is referring when writing about "a cultural transformation". Such radical change represents the focus and "raison d'être" of the present document. By contrast,

operating turnarounds resulting from a variety of short-term, technical actions such as revenue generation, cost cutting, asset reduction and the like, do not call for, nor result in, as a matter of course, changes in strategy, structure, ideology, leading to a fundamental reorientation of the organization.

There are three additional works on turnarounds written from a normative perspective, two articles (i.e., Pearson, 1977 and Goldress and Christian, 1976) and one book (Goodman, 1982) but they add very little to the conceptualization of turnaround situations. They are rather a collection of recipes, a step-by-step guide concocted by experienced consultants on how a manager should go about effecting a turnaround.

### 3.2.2 The Descriptive Approach to Turnaround Situations

A second approach to the issue of turnarounds within the strategy field takes the form of a number of descriptive or explanatory studies that provide a general framework or structure to the turnaround situation (Schendel, Patton and Riggs, 1976; Wyckoff, 1976; Biteman, 1979; Bibeault, 1982).

These authors generally agree that strategic turnarounds are radical changes brought about by an organizational declining performance that threatens the very viability of the firm.

Although looking at different organizations and employing rather different perspectives and methodologies, they reach similar conclusions about the uniformities found in the turnaround situations<sup>1</sup> studied. It appears from their findings that the general structure of a turnaround situation consists of three separate phases<sup>2</sup>: i.e., decline, crisis and recovery, each of them characterized by distinctively different processes.

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<sup>1</sup> A turnaround situation is considered to have occurred if the company has experienced at least four years of decline in earnings followed by an uptrend of at least four years in profits.

<sup>2</sup> Bibeault omits the period of crisis but makes implicit reference to it throughout his thesis.

### The Decline Period

The decline stage is described as a mixture of a number of features, or symptoms, such as:

- 1) poor management, that is, a high degree of concentration on the technical aspects of the administration (e.g., preoccupation with cost controls, pricing and volume) to the detriment and neglect of other important issues for the survival of the organization, such as scanning and monitoring of the unquantifiable environmental conditions;
- 2) unexpected and major changes in the organization's environments that destabilize the organization;
- 3) a top-down decision and communication system;
- 4) top manager's wallowing in dysfunctional behaviors, such as denials of problems, withdrawals, scapegoating, what Wyckoff (1976) calls a "Bunker Psychology";
- 5) a loss of trust by subordinates in their superior's ability to cope with the crisis.

In brief, crises are induced into organizations by unexpected and irreversible changes in the environment and/or by factors internal to the organization without discontinuous changes in the environment.

### The Period of Crisis

A second stage identified, common to all organizations studied, is termed the period of crisis. They define "crisis" as a period of financial losses" (Schendel, Patton and Riggs, 1976), "of cash shortages, lack of confidence and poor communication" (Wyckoff, 1976). The

crisis period is an important phase of the turnaround for it draws attention to the need for fundamental changes, eliminating as a result, the likelihood of the organization quietly sinking into bankruptcy. In other words, the crisis makes apparent, glaring, the need for fundamental and radical changes in the organization.

### The Recovery Period

Also referred to as the "upturn phase", (Schendel, Patton and Riggs, 1976), is defined as a period of high managerial activity with the purpose of turning the company around. Such a period was found to be characterized by a number of uniformities:

- 1) A change in leaders, this pattern was present in 80% of the observed cases.
- 2) Higher capital investment mostly used for the purpose of changing the present equipment.
- 3) A set of vigorous short-term actions to stop the "bleeding" and to ensure the survival of the company (e.g., strict control of expenditures and conversion of assets into cash), the establishment of supportive relationships with important outsiders, clients, creditors, unions.
- 4) "A new strategic orientation" (Schendel, Patton and Riggs) or "a new business concept" (Wyckoff) that aims at establishing a new organization-environment fit.

The formulation of the new "business concept", that is what the surviving organization is to become and what means are required to achieve it is the responsibility of its top managers. The role of top management is critical in this phase. Not only have they to build an

image of what the organization should be, but they must also communicate it effectively to the organization's members in order to create a consistent, shared picture that serves to guide decisions and instill the enthusiasm and optimism required for the hard work of recovery.

We shall summarize the conclusions of these authors by presenting their observations about each phase of a turnaround, in a synoptic, comparative table (Table 3-1).

### 3.3 Discontinuous Change as Cognitive Reorientation

#### 3.3.1 Introduction

This segment of the thesis focuses on what has come to be called the Swedish school on organizational change (Hedberg, Starbuck, Jönsson, Lund, Berg, Stymne and Rherman) and on Ansoff's recent works on strategic posture transformation. (1976,1977).

The authors concerned may be considered as providing the organizational theory and strategy field with a first tentative theoretical framework for the understanding of discontinuous change in organizations. Though differing vastly on specifics, they all share, more or less explicitly, the view of organizations as value coordinated systems and of radical, discontinuous changes as a fundamental restructuring of cognitions, an extensive substitution and addition to the cultural constructs (myths, symbolic meanings, ideologies, values, ethos, etc.) shared and used by organizational participants.

This general framework underpinning their work is made up of three main pillars or factors which sustain their entire conceptual edifice:



**Table 3-1**

**PHASES OF A TURNAROUND**

	<u>Downtrend (Decline)</u>	<u>Crisis</u>	<u>Uptrend (Recovery, renewal)</u>
Schendel, Patton and Riggs (1976)	Management inactivity, ignoring inputs. Adverse changes in environment.	Financial losses. Realization of need for basic change by top management.	Change in leadership. Short term remedial actions. "New strategic orientation". Improvements in economic performance.
Wyckoff (1976)	Increasing confusion, paralysis of communication and management.	Cash shortages, lack of confidence, poor communication	Replacement of top managers. Short-term actions to avert collapse. "Business concept" developed. Confidence, communication restored.
Biteman (1979)	Loss of support, confidence of shareholders. Management isolated, authority contracted. Employees disinterested, closed into defensive groups.	Precipitating event. Perception of imminent threat. Customary behavior disrupted. New groups, coalitions interact. Search for new ways.	New management. "New concept". New relationships with shareholders. Perception of opportunity.
Bibeault (1982)	Decline in gross margin, new orders, sales, return on investment that culminates in substantial losses. Financial viability threatened.		Strong actions for changing management deficiencies and company culture, which will return the company to healthy growth. The process undergoes 5 stages: management change stage; the evaluation stage; the emergency stage; the stabilization stage; the return-to-normal growth stage.

### 3.3.2 Factors Accountable for Processes of Change in Organizations

The first factor of relevance to explain organizational change is the character of the environment. The environment is seen here in all its complexity (i.e., market, technology, industry, socio-political). Time and time again, the students of organizational and strategic change of all persuasions have pointed out the high degree of interdependence between changes in the environment and those in the organization, deriding any attempt at understanding the pattern of organizational change without ample consideration of environmental factors.

However, the Swedish school (and Ansoff), by distinguishing between continuous and discontinuous change in the environment established the foundation for a somewhat novel theory of organizational change. Indeed the pattern of organizational development occurs in discontinuous<sup>3</sup> stages, with each stage representing a higher degree of development than earlier ones in terms of the basic "character" of the organization and of its mode of functioning.

Focusing on the notion of a complex interrelationship between the organization and its environment, rooted either in the contingency theory framework, in the Swedish school's case, or in Chandler's paradigm (1962) in Ansoff's instance, these theorists propose that any theory of change in organization must start with a typology of environments or of the various types of environmental change which may induce evolutionary or revolutionary changes in organizations (Rherman, 1973; Stymne, 1972; Hedberg, 1979; Nystrom et al, 1976; Starbuck, 1977; Ansoff, 1977).

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<sup>3</sup> (i.e., where periods of evolutionary change alternate with periods of revolutionary change)

Their view on the relationship between the nature of environmental changes and the character of the organizational changes has influenced a number of other works published in North America (e.g., Kimberly & Miles, 1980; Miller, 1980). For instance, Miller (1980) proposes a four-cell typology based on whether the environment is exclusive or inclusive<sup>4</sup>, and on whether environmental variations are fine or coarse-grained<sup>5</sup>. Miller concludes that in three out of four environmental types distinguished, that is, the exclusive fine environment, the exclusive coarse-grained and the inclusive fine-grained, revolutionary or "quantum" changes are required and will be forced upon an organization.

This body of works outlines a general, logical framework to support the notion of radical organizational change as a result of discontinuous transitions in the character of environments and thus provides a valuable addition to the traditional view of organizational change and development.

A second factor deemed critical to the understanding of the processes of discontinuous change in organizations consists of the characteristics of the leaders, their skills, especially the cognitive ones, in interpreting the environment.

The theorists concerned are strongly supportive of the notion that organizations operating in dynamic and changing environments must be endowed with the capacity to continuously monitor, perceive, assess and enact accurately their changing environments; furthermore, the task is to be accomplished through the cognitive functioning and skills of its management in collecting and interpreting environmental signals.

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<sup>4</sup> An environment is considered exclusive if, while changing from one state to another, it creates very difficult adaptive contingencies for an organization. Alternatively, an environment is considered inclusive if, while changing from one state to the other, it presents adaptive contingencies that may be met with slight structural modifications.

<sup>5</sup> Environmental variation is fine-grained when organizations face rapidly alternating states. Environmental variation is said to be coarse-grained when environmental states are quite enduring.

Managerial myopia and biases introduced by the cognitive limitations of managers (Simon, 1957; Steinbrunner, 1952), by phenomena of groupthink (Janis, 1971), by the system of promotion and power allocation (Wildawsky, 1972; Pettigrew, 1973, 1974), by excessive organizational slack resources (Hedberg, 1977), by emotional factors (Miller and Friesen, 1980), represent a major cause for the misfit between the theory of action managers hold and the reality as it impinges upon the organization. Such a situation brings about disorientation in managers, inefficiency in the organization and the need for radical, discontinuous change in the organization.

The third factor relevant for explaining discontinuous change is the character of the operational paradigm, or what Berg calls the emotional structures of the social organization, or Hedberg and Jönsson (1977) the myth of the organization, Stymne (1972) the organizational value structure, and Ansoff, using a more comprehensive concept, the strategic action potential (1977).

All the above authors contend explicitly or implicitly that the behavior and development of organizations are governed by rules, paradigms, norms, value structures, myths, in short by organization cultures, unconsciously shared by organizational members and which set the parameters for organizational functioning and "define the nature and meaning of that which the organization is" (Brown, 1978, p. 374). Furthermore, the character of this paradigm determines the way in which the organization relates to its environment.

Thus, if the organizational paradigm is functional, that is congruent with reality, the functioning of the organization will be relatively stable and will allow strategy continuity and organizational learning in a continuous, adaptive mode, except when the environment is itself turbulent and discontinuous.

However, if the organizational paradigm is dysfunctional (Hedberg, 1974; Nystrom et al, 1976; Clark, 1972; Pettigrew, 1979; Peters, 1978; Lodahl, 1980), as evidenced by symptoms such as "groupthink" (Janis,

1971), reinforcing mythologies and distorted world views (Hedberg and Jönsson, 1977), the processes of environment scanning and monitoring will tend to be defective and lead to incongruence between the organizational paradigm and the environment. Then, even gradual and continuous, but undetected or misinterpreted changes in the environments may lead to a widening gap between reality and the organization's construing of it. Leaders of the organization will gradually lose their capacity to effectively deal with events which cannot be comprehended on the basis of the reigning organizational paradigm. The stress may be reduced only by replacing the paradigm by a new, better suited one, in a radical discontinuous shift.

Indeed, for these students of change, interruptions in the period of evolutionary change, that is, discontinuity or revolution in the organization, result from the severe strain on organizational systems caused by pressures from the environment and/or by factors internal to the organization. The source of this strain is to be found in the misfit between the myth or the theory of action and reality" (Hedberg and Jönsson, 1977) or "the lack of correspondence between managers' cognitive structure of the firm's position and actual events" (Nystrom, 1973) or in the dissonance between organization's culture and its environment, or as Berg puts it, because "the organizational paradigm is no longer sufficient to handle the internal and external changes and problems that the organization encounters" (Berg, 1979). Thus the transition from one stable period to another can be seen as a shift in the basic paradigm out of which the organization operates. "Understanding environments that change requires tearing down obsolete mental maps and starting anew" Hedberg, notes (1977). Indeed, Hedberg and Jönsson (1977) state to this effect:

"Our main proposition is that organizations develop over time through wave patterns of myth. The waves constitute cycles with spurts of enthusiasm, built largely on wishful thinking that initiates vigorous action, followed by decline in the unifying and directing force of the leading idea, or set of ideas. The final decline, which results from the interaction between plans and real outcomes, ends in a crisis. As a consequence of the crisis, the organization often accepts a new strategy"

### 3.3.3 Comparison Between Johnson-Wallace Theory of Revolutions and the Discontinuous Change Concept of the Swedish School

The above authors' concept of discontinuous change, whether it is called "the model of development and replacement of myths over time" (Hedberg & Jönsson, 1977) or the "model of discontinuous change" (Nystrom, 1974) or "changes in an organization's emotional structures" (Berg, 1979) or "cultural transformation" (Ansoff, 1977), is conceptually cast in terms that strikingly parallel the model for the development of scientific knowledge as a process of paradigm replacement, suggested by Kuhn (1970) or the theory of revolution found in Johnson's social system theory (1966) and in Wallace's psychology of culture change (1970).

In order to provide a better understanding of what sociologists, cognitive psychologists and organizational theorists, apparently but often unwittingly, resorting to the same conceptual framework, have come to call "the process of radical change", I present, a table setting out and comparing the main stages and processes involved in the Johnson-Wallace theory of societal revolutions on the one hand, and the Swedish school's model of discontinuous change in organizations, on the other (Table 3-3). It should be noted, however, that the stages proposed by the "Swedish model" are not to be found as such in any of the works referenced. These stages were inferred by this author from their rambling discussion on the issue of discontinuous change in organizations, and from a close reading of the theory of revolution literature reviewed in Chapter 2 of this thesis.

Such a comparative analysis has the merit of first providing a more complex view of radical change at both the societal and organizational levels, and secondly, of reinforcing one of the very strong analogical models encountered in organizational theory, that of the organization as a "society writ small". (Silverman, 1970).

I shall not further elaborate on Johnson-Wallace's convergent model of revolution, for it was already discussed at some length previously. (See Chapter 2).

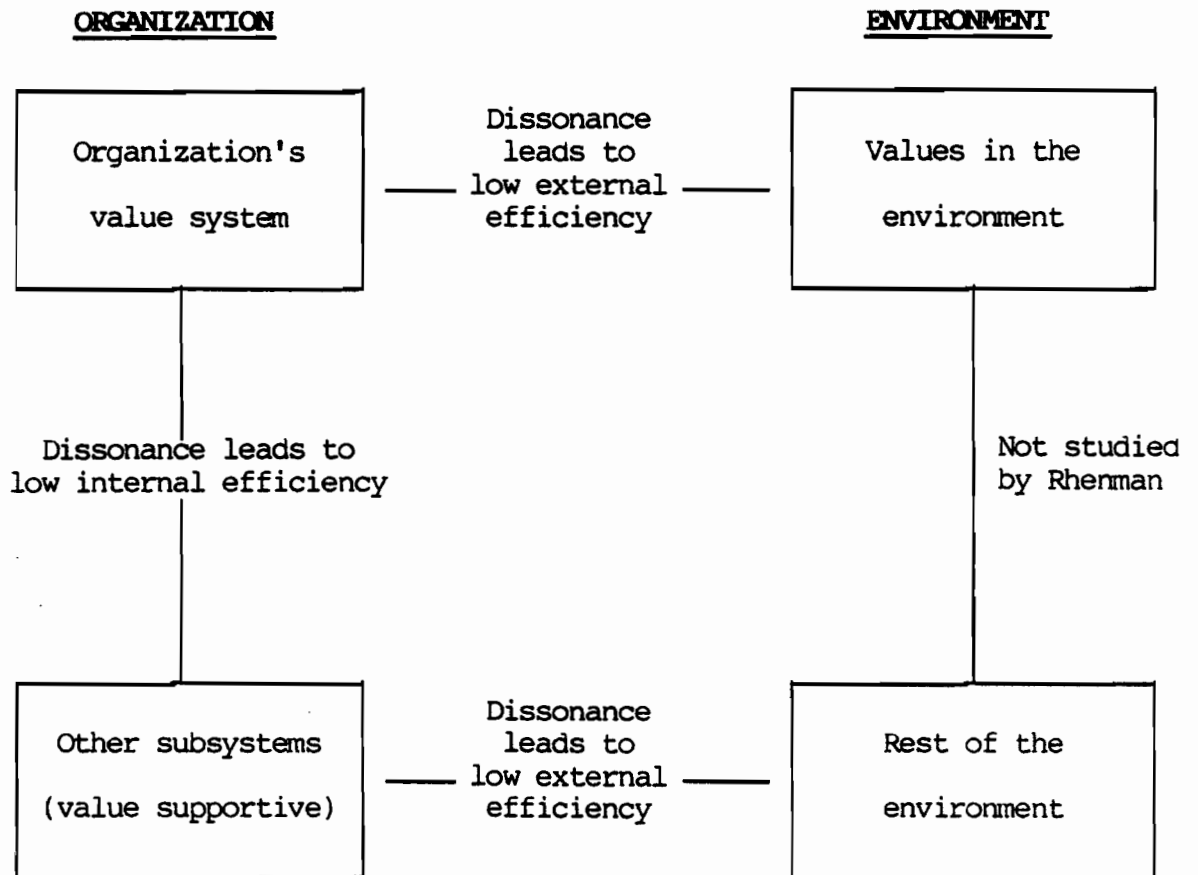
Nevertheless, there are two significant differences that should be noted at the outset.

First, these models of societal revolution or radical change have to concern themselves only with the dissynchronization between a society's values and its other environmental systems and characteristics. In discussing discontinuous change in organizations, at least two possible levels of dissynchronization or dissonance must be included: dissonance between the organization's value system and its other systems and dissonance between the organization's value system and the environment's values. Rhenman (1973)'s Figure 2-2 reproduced as Table 3-2 captures well this particular dimension.

Theories of societal revolution of the Johnson and Wallace's ilk, focus on the right-hand side of Table 3-3 that is the relationship between a society's values and its other systems. Their elaborate constructions and models to explain revolutionary changes at that level may usefully be transported to the study of organizations conceived as "little societies". However, these little societies are in close and influential relationship with a larger society, which brings about additional potential for dissonance and dissynchronization between an organization and its environment.

A second difference has to do with the timing and process of change in leadership. In the revolutionary model of Wallace and Johnson, the first four stages of the revitalization process (i.e., the formulation of a code, communication, organization and adaptation) are seen as prior to the change in the ruling elites, as prerequisite conditions for the "cultural transformation" defined as an overt attempt to implement the "transfer culture". This implementation of a transfer culture may take various forms: a revolutionary war, coup d'etat, guerilla warfare and insurrection.

In the Swedish school's model, two major alternatives are possible. First, it may be that all the stages of the revitalization process

Table 3-2VALUE-ENVIRONMENT AND EFFICIENCY

(Source: drawn from Rhenman (1973): Figure 2-2, page 29)



will be posterior to the change in leadership. This alternative is possible and frequent when the competing myth (i.e., the revolutionary ideology or new code) arrives with new executives who join the organization, a new president (Clark, 1972), or a new management team (Hedberg and Jönsson, 1977). They are examples of potential bearers of challenging myths.

Nevertheless, their model also accommodates an alternative mode of transition from one myth to another, "the succession through struggle" which closely corresponds to Johnson and Wallace's chronological presentation of a revolutionary process. "Succession through struggle", Hedberg notes (1977), "requires that there be a sufficiently strong group inside the organization capable and willing to carry the competing myth and challenge the ruling system". This statement indicates that the process of radical change and cultural transformation whereby four stages (i.e., formulation of a code, communication, organization, adaptation) occur prior to the change in leadership may also be pertinent for the specific case of radical organizational change. Stymne's (1970) concept of competing "sway groups" who attempt to influence the organization's goals and values is compatible with the process of revolutionary change described by Johnson and Wallace.

However, as Zald and Berger (1978) notes: "a State has a legitimate monopoly over coercion whereas an organization does not" (p.856). Accordingly, the change of leaders in an organization is usually much easier and common; it requires only an administrative act, that of firing a managerial team and the appointment of a new one. Such a characteristic eliminates the need for a secret revolutionary, hierarchically structured, association, united by an ideology capable and willing to challenge the present leaders and their myth. After appointment, the new leaders will overtly formulate a new code as a proposed solution to the crisis, communicate it to people, organize for its implementation, eliminate inconsistencies, all with the purpose of reshaping the organization in a new viable form.

However, it may be hypothesized that:

- when the top management is less vulnerable to replacement because the higher authority is impotent (e.g., board co-opted by management) and/or measures of performance are not freely available (e.g., state or private monopoly or organizations not directly dependent on any market);
- when the cost of exit by disgruntled managers and employees is high (e.g., because of non-transferable skills, economic unattractiveness of alternative employment, loss of accrued benefits, etc.) the likelihood of politically subversive actions within the organization will increase. Therefore, under some, not so rare, conditions, organizations may become the locus of underground guerilla activities, open insurgency or even full-fledged insurrection (how many strikes are actually insurrections?). These actions are aimed at undermining the legitimacy and authority of a leadership which is considered incompetent, corrupt or simply incompatible. In such instances, the political processes of revolutionary change are quite relevant to an organizational perspective.

As far as the specific steps involved in the process of discontinuous change are concerned, the Swedish school differs from Ansoff. Therefore, in what follows, I shall examine separately the two models proposed.

First, I shall look at the phases of the model of discontinuous change in organizations inferred from the writings of the Swedish school and presented in Table 3-1. Immediately after, I shall review the steps proposed by Ansoff.

### 3.3.4 The Swedish School's Model of Discontinuous Change

#### **Phase I: The Period of Incremental, Adaptive Change**

The organization is surrounded by a stable and sometimes benevolent environment, functioning as a social system in a steady state. There is substantial congruence between the myth (theory of action) of the organization and reality. The myth and its derivative set of strategies<sup>6</sup> provide an acceptable definition of the situation upon which the organization can act. Accordingly, the organization is characterized by "strategy elaboration and learning behavior given the ruling myth" (Hedberg and Jönsson, 1977).

Uncertainty is reduced by prediction and forecasting of the environment, and by appropriate planning.

It is period of "continuous change" (Nystrom, 1974), of "adjustment learning" (Hedberg, 1979), whereby the organization is oriented towards protecting and exploiting established conditions, towards extracting profits from the existing environmental linkages.

#### **Phase II: The Period of Subjective Uncertainty and Decline**

A growing lack of correspondence between the prevailing cognitive structures of managers about the firm's economic position and actual events (Nystrom, 1974) or, in Hedberg and Jönsson's terminology (1977), a "misfit between myth and realities" brings about disorientation in managers, inefficiency in the organization and a disequilibrated system.

A major, but not unique cause for this disequilibrium is found in radical, discontinuous changes in environmental conditions that render the myth or the cognitive structure of the organization obsolescent.

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<sup>6</sup> Strategies are defined as operationalizations of the theories of the world, that serve the double purpose of (i) forming defense networks against information overloads and (ii) ordering and mapping information into "definitions of the situations" (Hedberg and Jönsson, 1977).

At the individual level, the most important symptom of system disequilibrium is the emergence of "subjective uncertainty" (Nystrom, 1974), a type of uncertainty arising not from a lack of information but from a lack of appropriate cognitive structures about relevant present and future events. It characterizes situations where decision makers become aware of an uncomfortable gap between their conception of reality and actual conditions and events. "Where divergence from expectations cannot be explained within the frame of reference given by the old myth, there is genuine subjective uncertainty" (Nystrom, 1974).

Decision makers feel uncertain because they do not understand the cause of unexpected outcomes and have no clue as to where to find ideas for corrective action (Hedberg et al, 1977; Bruner, Goodnow & Austin, 1956). This leads to considerable stress in the organization during this period, a most prevalent symptom of which is the appearance of denial mechanisms. Managers deny the fact that crisis are developing, that the world may have changed and that strategic reorientation are needed.

As Starbuck and Hedberg (1977) point out in their discussion of crises, denials are usually grounded in a sincere but erroneous conviction traceable to two main causes. First, denial may be explained in terms of Wallace's (1962), 1970) "principle of conservation of cognitive structure" which states that it is a human characteristic to adhere to one's prior beliefs in spite of evidence that they are incorrect.

Secondly, the prevalent ideology, myth or theory of action, the strategies flowing thereof and the ensuing distribution of power and authority, all result in strong vested interests and commitments that easily persuade managers as to the validity of the organization's present orientations. Poor performances are "explained" by transient environmental conditions such as economic recessions, energy prices, mysterious drops in consumption, international competition and the like.

This, of course, implies that no major strategic reorientations are required but only that tougher times require everyone to try harder. Accordingly, organizations, at this stage, adopt an incremental change strategy, concentrating on what they see as their particular areas of competence, increasing centralization of control and restraining further on expenses (Beer, 1972; Nystrom et al, 1976; Thompson, 1967).

### **Phase III: The Crisis**

The economic performance has dangerously deteriorated. Large losses are incurred. Starbuck and Hedberg (1977) has cogently described the indicators of an organization in crisis in terms that closely parallel those found in the "cultural distortion phase" of a social system in disequilibrium.

First, people begin to see that the top managers have been making faulty assumptions and predictions. Doubts arise that the top managers know how to cope with the situation. Loss of authority ensues; idealism, enthusiasm and commitment to organizational goals fade; cynicism and opportunism grow; scapegoatism and exit are common. If the "voice" option appears futile, some of the most able managers leave the organization (Hirschman, 1970). As a result the organization may quickly lose the knowledge and people needed for reorientation. Conflicts and power struggles often lead to more centralized control (i.e., power deflation in Johnson's terminology) by the top managers whose legitimacy and authority are already challenged or at least undermined by their ineffectual handling of the crisis.

### **Phase IV: The Revitalization Period or Rebuilding the Organization in a Viable Form**

A) **The Formulation of a New Code or Myth.** At this stage, for an organization to successfully achieve a strategic reorientation, it must cut its ties with the past, that is, it has to "unlearn its yesterday" (Starbuck and Hedberg, 1977).

Accordingly, in this schema, organizational members' loss of confidence in present leaders and their replacement by new leaders, are necessary conditions to the revitalization of the organization. This is very similar, in our opinion, to the "loss of authority", as a necessary condition for revolution, found in Johnson (1966). Empirical support for this proposition comes from Pettigrew (1974), Hedberg (1974, 1975), Jönsson (1973), Wilson (1964) who suggest that major reorientations in declining organizations frequently emerge from a combination of financial and leadership crisis.

This leadership change may be accomplished in two ways:

- 1) New leaders join the organizations as a result of an acquisition or an appointment by a board of directors (or other authorities) dissatisfied with past performances. The old group of top managers is usually fired or, at least, removed from their leadership position.
- 2) The emergence of a strong group within the organization, bearer of a new myth, capable and willing to challenge the existing leaders and the ruling theory of action.

The first instance is the most prevalent process or, at least, the most viable and notorious. It has tangible merits:

1. It is a symbolic and cathartic event that clearly signals the end of disintegration and the beginning of a regeneration period, a brutal discarding of past practices, strategies and outlooks.
2. It is an efficient means of changing distorted perceptual frameworks and obsolescent theories of action, forcing in some new perspectives and innovative strategic ideas. The new leaders are assumed to be the bearers of a new myth, which constitutes an "anchor" from which new cognitive structures and strategies will emerge.

The second mode of transition from one myth to another consists of "succession through struggle". This alternative deserves some attention. As noted before, the condition for this alternative to develop is the presence of a strong group inside the organization, that holds to a competing myth, the existence of which can be understood in terms of processes of diffusion-adoption: that is alternative world views and values are imported in to the organization by organizational members in contact with other organizations or other sources in the environment. Stymne (1972) also indicates that the values of the "sway group" may come in part from the environment.

Whatever dynamic factors account for the existence in the organization of members who do not fully subscribe to the official theory of action and myths, these members are likely to be the first to experience an "uncertainty gap", a widening chasm between their reading and apprehension of reality and the official interpretation of events. This uncertainty will further stimulate their information search, which will result in a widening of the breach between the reality as perceived by them and the official and still reigning myth.

Their attempts at explaining the situation, diagnosing the problems, and formulating alternative strategies actually constitute the elaboration of different cognitive structures; and the encoding and articulation of an alternative strategy leads to the advocacy of a fundamental cognitive reorientation in all other organizational members. Whether that will be successful or not, is a contingent issue; the point here is to outline the process by which demands for radical change may come from within the organization.

**B) Managing Ideology.** This stage which roughly corresponds to the stage of "communication" in the Johnson-Wallace's model implies the persuasive presentation by the new managers of their findings and proposed solutions to the problems of the organization in order to obtain the support of members.

"The uncertainty created by the feeling of crisis gives the proponents of a new myth an audience, which serves as a sounding board through which the message is simplified and strengthened" (Hedberg and Jönsson, 1977).

The arguments for the new theory of action will have to stir emotions as the new leaders have to create an atmosphere which exudes optimism and confidence, a climate of experimentation, propitious to fast and energetic actions.

Facit's turnaround and Verstwerk's resurrection are cases of radical strategic reorientation in two Swedish companies, which were achieved almost entirely by managing ideology (Starbuck and Hedberg, 1977).

**C) Adaptation.** During this period, the initial cognitive structures undergo a process of adding new dimensions and causal linkages in an effort to understand and reduce discrepancies between expectations and observed outcomes. In this way, Hedberg and Jönsson (1977) note, "the anchor" becomes the new myth which gradually develops into a complex of possibilities concerning the relationship between organization and its environment. This consolidates the myths and turns the existing cognitive frameworks into predictive models. The myth provides the domain definition that identifies the relevant variables for action purposes.

**E) The Routinization Stage.** This consolidation process consists of a gradual shift from ego-attribution back to environment attribution. Behaviors are institutionalized and become habits. The myth loses its novel, energizing quality but retains its role as purveyor of acceptable modes of action and strategies.

**F) The New Steady State or "environment-attribution mode of behavior",** whereby the myth provides the definition of the most critical variables and the organization, having gone full circle, behaves again in a predictive-adaptive way; causal factors for success or failure are sought in the environment, and uncertainty is reduced by forecasting and planning activities (Hedberg and Jönsson, 1977). Continuous incremental adaptation to environments resumes.



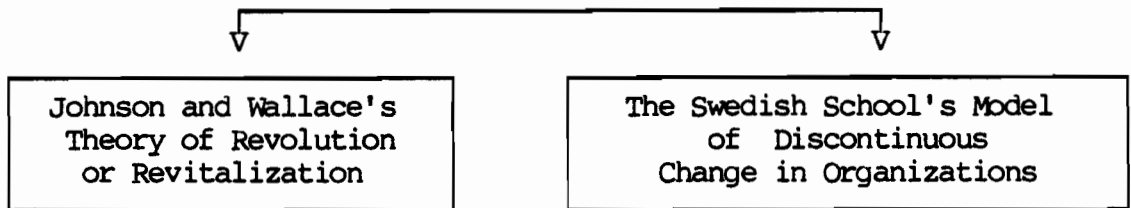
Table 3-3

## COMPARATIVE TABLE OF IMPLICIT PHASES IN

Johnson and Wallace's Theory of Revolution or Revitalization	The Swedish School's Model of Discontinuous Change in Organizations
<p>I. <u>A Steady State</u>: Society is characterized by <u>moving</u> or <u>homeostatic equilibrium</u> due to value-environment synchronization.</p> <p>II. <u>Period of increased individual stress</u> due to value-environment dissynchronization.</p> <p>III. <u>Cultural distortion</u> whereby "loss of authority" and "power deflation" as necessary conditions for revolution ensues and where individuals try to cope by dysfunctional expedients. A continuous decline in the degree of organization is occurring.</p>	<p>I. Period of <u>incremental, continuous change</u> with a <u>predictive-adaptive</u> mode of behaviour due to the congruency between the myth (Hedberg and Jönsson 1977), the value structures (Stymne, 1972), the cognitive structures (Nystrom, 1974), the emotional structures (Berg, 1979, and <u>external environments</u>.</p> <p>II. Period of "<u>subjective uncertainty</u>" and <u>decline in performance</u> due to a lack of correspondence between myth and the reality (Hedberg &amp; Jönsson, 1977), between "prevailing cognitive structures which managers have of the firm's economic position and actual events" (Nystrom, 1974), or between "firm's value subsystem and environments (Rherman, 1973).</p> <p>III. <u>Crisis</u> whereby the organization incurs losses and structural disintegration (Rherman, 1973). Doubts arise about top managers' ability to cope with the situation (Argenti, 1976; Pettigrew, 1973, 1974). More centralized control by top managers ensues.</p> <p>People resort to organizationally dysfunctional behaviors such as: lack of commitment to organizational goals, cynicism, opportunism, scapegoatism, exit by the best managers (Jönsson and Lund, 1977).</p>

Table 3-3

## COMPARATIVE TABLE OF IMPLICIT PHASES IN



IV. Revitalization (Wallace) or Revolution (Johnson) whereby society attempts to return to a functional steady state, or a new value-environment symbiosis.

(a) Formulation of a code or of a "revolutionary ideology" which is made of: "a goal culture" (i.e. a new-value environment symbiosis) and the "transfer culture" (i.e., a system of operations that produces the change of the "existing culture" into the "goal culture").

(b) Communication: The code is offered as a means of achieving a more highly organized system with the aim of making converts.

IV. Rebuilding the organization in viable forms or "inventing tomorrow". Organizations attempt to reestablish a new fit between organizational myths and external reality. Possibility of replacement of top managers by new members joining the organization.

(a) Formulation of a new myth wherein a solution (in principle) to the crisis is formulated, which is the "anchor" to the new "myth" or to the theory of action on the basis of which organizations can act.

(b) Managing ideology: The findings are presented to other members as a solution in principle to the crisis with the aim of instilling in people new goals, optimism, an experimental attitude required to overcome the crisis (Hedberg and Jönsson, 1977).

Table 3-3 (continued)

## COMPARATIVE TABLE OF IMPLICIT PHASES IN

Johnson and Wallace's Theory of Revolution or Revitalization	The Swedish School's Model of Discontinuous Change in Organizations
<p>IV. (cont'd)</p> <p>(c) <u>Organization</u>: It consists of the formation of converts differentiated between two groups: disciples and mass followers. The disciples become the executives of the hierarchically structured revolutionary association, who have the role to implement the transfer culture.</p> <p>(d) <u>Adaptation</u>: Wherein changes are made to the code to remove inconsistencies in the original code. It is a consolidation process through which the revolutionary ideology turns into a challenge for the old value structure.</p> <p>(e) <u>Cultural Transformation</u>: Overt attempts to implement the transfer culture may take various forms i.e., coup d'état, insurrection, general strike etc.. It succeeds if a) a large number of people have adhered to the new code and internal social conformity has been obtained b) a successful economic system has evolved.</p>	<p>IV. (cont'd)</p> <p>(d) <u>Adaptation</u>: New dimensions and causal linkages are introduced into the initial cognitive structure, "the anchor", as a result of discrepancies between expectations and observed outcomes. In this way, the anchor becomes the new myth, that provides the domain definition (Hedberg, Jönsson, 1977; Starbuck &amp; Hedberg, 1977).</p> <p>(e) <u>Cultural Transformation or Ego Attribution Mode of Behavior</u>: Possibility of replacement of top managers by a competing group inside the organization, "sway group" (Stymne, 1972). Attribution shifts from environment to the self, feeling of control over the situation is developed, economic performance is improving.</p>

Table 3-3 (continued)

## COMPARATIVE TABLE OF IMPLICIT PHASES IN

Johnson and Wallace's Theory of Revolution or Revitalization	The Swedish School's Model of Discontinuous Change in Organizations
<p>IV. (cont'd)</p> <p>(f) <u>Routinization</u>: The focus moves from innovation to maintenance.</p> <p>(g) <u>The New Steady State</u>: A new equilibrium that is, a new value-environment symbiosis is reached. Cultural change continues, but of an evolutionary variety.</p>	<p>IV. (cont'd)</p> <p>(f) <u>Routinization</u>: Gradual shifts from ego-attribution to environment-attribution in the consolidation process. Institutionalization of behaviors (Hedberg &amp; Jönsson, 1977).</p> <p>(g) <u>Environment - Attribution Mode of Behavior</u>: Relative congruence between myths and reality and predictive-adaptive behavior; continuous incremental process of change resumes.</p>

### 3.4 Ansoff's Strategic Posture Transformation

The shift to a discontinuous strategic behavior is called by Ansoff, "a cultural transformation", for it goes beyond "changes in intensity of behavior" (i.e., more selling, more advertising, more cost control, more of everything) characteristic of the mode of "strategic evolution" or "competitive behavior". The discontinuous strategic mode or "entrepreneurial behavior" is "a rational approach to assessing and redefining the linkages of the firm with both its business and societal environments" and implies two levels of changes: first, changes in the strategic position of the firm in its environment (new products, new markets, new non-business societal changes in the firm's culture), in a way which prepares it to live in the new type of environment.

Then, when a firm moves from strategic evolution (i.e., competitive behavior) to strategic discontinuous behavior (i.e., entrepreneurial mode), a fundamental transformation takes place in all its major components: its objectives, its value system, its managers, its processes, its systems, its structures (Ansoff, 1976).

According to Ansoff, the theory and practice of the strategy field has concerned itself extensively, almost exclusively, with the planning of the firm's external strategic position; the planning of the "capacity transformation" of the firm has received only minimal attention. Ansoff therefore proposes a normative methodology for the deliberate redesign of both the external strategy and "capability strategy" of the firm (i.e., discontinuous change) in response to the demands for a strategic posture transformation.

#### 3.4.1 Ansoff's Model of Discontinuous Change: Steps

A detailed discussion of this methodology will be found in Ansoff et al, (1976). Only the main steps will be sketched here in order to provide an idea of the main arguments and themes in Ansoff's analytical framework:

- I) The first step consists of environmental diagnosis, with the purpose of determining the competitive climate of the firm and its own competitive behavior. The main managerial decision-making tool proposed is the industry life cycle which presumably helps in the assessment of the competitive climate of the firm.
  
- II) The second step refers to **the capability diagnosis** phase which implies observing the internal attributes of the firm: its prevailing values, the focus of management attention, reaction to changes, risk preferences and the like; as a complementary approach, analyses of the various elements of structure and systems, such as distribution of power, organizational structure, etc. are required.
  
- III) The third step is represented by the planning of the strategic posture transformation. This stage covers the planning of two phases: (i) the planning of the strategic position and (ii) the planning of the process of internal capability transformation, and its phasing. Since the procedures to deal with the first element have been well described in the strategic planning literature, Ansoff focuses on the second element. Thus, he defines the process of "transformation of the internal capability" as a process involving mutually consistent changes in a number of attributes of the firm's "internal capabilities", such as:
  - Organizational values and norms;
  - Managerial skills, knowledge and risk propensities;
  - Structural relationships: authority, responsibility, information, power task;
  - Process relationships: problem-solving, communication, motivation, control;

- Technology: formalized system, information, decision analysis, computer application.

The process of capability transformation requires first, the construction of a profile of the current capabilities using the results of step 2, secondly, the construction of a desired profile and finally, the transformation itself.

The process of transformation, which covers both the external strategic position of the firm and the change in its internal capability, may take two forms: (i) a coercive strategic posture transformation, which occurs when the recognition of the need for transformation is triggered by a crisis. Such a case requires strong support and guidance from top management and frequently, because of the pressing need and short time available, new capabilities and skills must be imported to carry out the transformation (new managers, consultants, etc.). According to Ansoff, such a coercive transformation is likely to be costly, insufficient and disruptive; (ii) a simultaneous, interrelated and parallel attack on both strategic position and capability, carried out in phases and with changing priorities over time. The virtue of such an approach is that certain elements of the internal capability transformation flow naturally out of the strategy changing activities.

### 3.5 Conclusions

This chapter has investigated the issue of discontinuous change as developed in the strategy and organization theory fields.

It has provided a comprehensive treatment of two different approaches to this topic.

1. One searching for a definition, description and typology of discontinuous changes in organization and represented by students in the strategy field (Schendel, Patton and Riggs,

1976; Wyckoff, 1976; Biteman, 1979; Bibeault, 1982; Hofer, 1979).

and

2. One concerning discontinuous change in organizations as a process of fundamental cognitive reorientation. (The Swedish school and Ansoff 1977).

Furthermore, the framework of Johnson-Wallace's theory of revolution presented in Chapter 2 was used to investigate the Swedish school's tentative theory of discontinuous change. As a result, a number of steps have been inferred within the process of discontinuous change in organizations.

Their more or less explicit view of organizations as value-coordinated systems and of discontinuous change as a fundamental restructuring of cognitions (the Swedish school) or capability transformation, (Ansoff, 1977), are concepts retained as highly critical for the development of a theory of radical change in organizations.



## CHAPTER - 4

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### **A MULTI-FACTOR MODEL OF CULTURE IN ORGANIZATIONS**

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#### 4.1 Introduction

This chapter aims at providing some structure and parameters for the development of a multi-factor concept of culture in organizations. To achieve this, I shall draw upon the body of work in cultural anthropology, classify and define briefly various concepts of culture found therein. Then, equipped with this anthropological sieve, I shall shift to the management and organization theory to retrieve the varied notions of culture found in that field. This difficult exercise is a prerequisite to the satisfactory delineation of the concept of culture for our purpose, or for that matter, for any purpose in organization theory. I shall conclude by proposing a multi-factor concept of organizational culture that is informed by the findings of this enquiry and which will serve as a critical building block for the development of a theory of radical change in organizations.

#### 4.2 The Meaning of Culture

One might have expected that the fascination with the "cultural properties" of organizations would have triggered a surge of interest within the field of organization theory for the critical debates and conceptual untanglings of cultural anthropology, that it would have stimulated a scholarly curiosity for the contrasting views of anthropologists of historical significance (Malinowski, Radcliffe-Brown, Boas, White, etc.) or of contemporary importance (Geertz, Schneider, Goodenough, Harris, Lévi-Strauss, Wallace). How are these scholars relevant to the issue of culture in organizations? How do they define culture and look for it? What contentious issues divide them most sharply? What are the philosophical underpinnings and assumptions of their position? What is the significance of their answers to these questions for organization theory and management? Thus far, however,

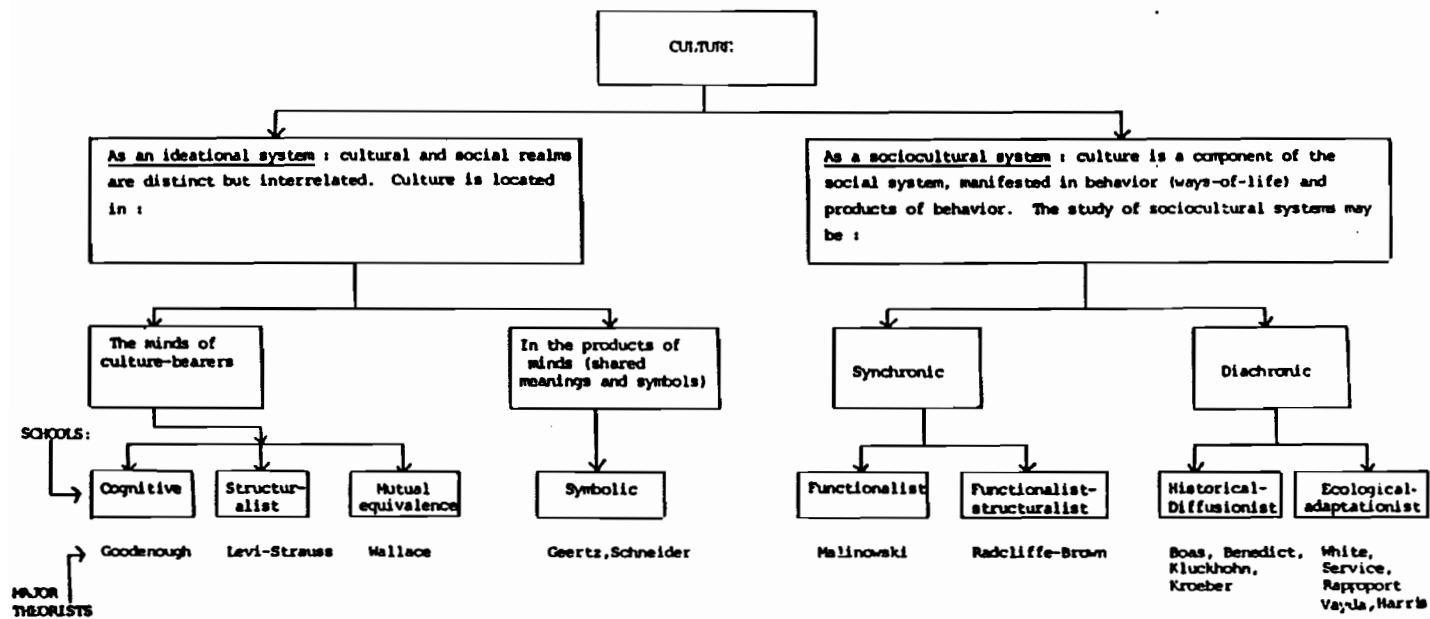
contributions to the topic of culture in organizations have tended to show a weak grasp of anthropological writings and a remarkable tendency to seize upon any convenient definition of culture encountered at random. We hope to show through an examination of various schools of thought in anthropology that there are well defined differences among views of culture and that adoption of a particular concept of culture is (or should be) a commitment to a definite epistemological and methodological stance.

To achieve some measure of order and clarity in assessing the contributions and conflicts in cultural anthropology, one must provide a simple classification of schools of thought. Although it is always hazardous to attempt a typology of complex ideas, I believe that the distinctions among schools of cultural anthropology presented in Figure 4.1 have a solid conceptual grounding (Keesing, 1974) and are most critical for the study of organizations. Four important issues are raised by this typology, and they will be tackled sequentially.

- 4.2.1 Should societies and, in our context, organizations be considered as sociocultural systems, or as made up of a social system/ and a (conceptually) separate, ideational, cultural system "capable of a wide range of modes of integration with one another of which the simple isomorphic mode is but a limiting case..." (Geertz, 1973, p.144)
- 4.2.2 Should culture, as an ideational system, be conceived of as located in the minds of culture-bearers or in the products of mind shared by interacting individuals? How are individuals and culture related? Are there various modes and degrees of integration of individuals in culture?
- 4.2.3 Should culture be studied synchronically as a configuration extant at a particular point in time and space, or diachronically, with the emphasis placed on the processes of emergence, development and mutation of cultural forms?

Table 4-1

A TYPOLOGY OF THE CONCEPTS OF CULTURE



- 4.2.4 What exogeneous factors contribute to the character of culture and structure and how do culture and structure influence each other?

#### 4.2.1 Sociocultural Systems vs. Systems of Ideas

A critical difference separates anthropologists (usually of earlier times with the notable exception of Marvin Harris) who studied culture within a holistic sociocultural system, from those who conceive of culture as a system of ideas (values, beliefs, etc.) that is autonomous and which can be analyzed independently of social organization. In the older perspective, the cultural and structural dimensions of society are inextricably bound together, are tightly integrated and therefore vary simultaneously.

This view was challenged however by a number of scholars. As mentioned in chapter 1, (Parson et al., 1951, 1958, 1961 based on Sorokin, 1937) proposed a controversial distinction between social and cultural systems.

"The social-system focus is on the conditions involved in the interaction of actual human individuals who constitute concrete collectivities with determinate membership. The cultural-system focus, on the other hand, is on "pattern" of meaning, e.g., of values, of norms of organized knowledge and beliefs, of expressive form." (Parsons et al., 1961, p.34)

The anthropologist Clifford Geertz (1973), a student of Parson, also embraced this view. From this perspective culture becomes then a mental superstructure of "inferred ideational codes lying behind the realm of observable events" (Keesing, 1974). The harmonious integration of cultural and sociocultural dimensions is not taken for granted but becomes an object of inquiry. A state of dissonance between the culture and structure of a social system may well develop as a result of the different pressures exerted on them and of their different processes of change and adaptation.

This is a proposition of great relevance to the understanding of processes of change in organizations. To adopt an ideational concept of organizational culture is to invite difficult but potentially fruitful interrogations about the state of harmony between the ideational (values, myths, beliefs) dimensions and the more formal structures and processes of an organization.

This controversy between the holistic and ideational concepts of culture has received little attention in organization theory; most often, and that includes all the classics on organization theory, it is tacitly assumed that the social and structural components are (must be) fully integrated, synchronized and consonant with the ideational, symbolic dimensions of the organization. In the last decade, however, as shown in chapter 1 p. 23, the notion of a possible incongruence between the ideational and structural components of organizations has seeped into the organization theorists' discourse.

Unfortunately, this notion is hardly ever mentioned in writings on culture or cultural artefacts in organizations published thus far. Researchers on organizational culture have to take a clear position on this issue. Choosing between the views of culture as a sociocultural system or as a system of ideas condition the very meaning of the concept, the relevant issues to investigate and the manner in which it should be investigated.

Culture concepts of the ideational kind shift considerably the nature and emphasis of enquiry into organizations. Culture, then, is made up of the culture-bearers' "theories of the world" and symbolic products. Culture is a dynamic, symbol-laden context (Geertz, 1973), a set of functional cognitions (Wallace, 1970; Goodenough, 1971) or a deep, unconscious structure of mind (Lévi-Strauss, 1958).

"Culture is best seen not as complexes of concrete behavior patterns - customs, usages, traditions, habit clusters - as has, by and large, been the case up to now, but as a set of control mechanisms - plans, recipes, rules, instructions (what computer engineers call "programs") - for the governing of behavior."  
(Geertz, 1973, p.44)

#### 4.2.2 The Locus of Culture

Among proponents of culture as ideational system, a critical difference of opinion divides those who are locating culture in the minds of culture-bearers from those who seek culture in products of mind .

The first group is composed of various cognitivist schools: cognitive (Goodenough, 1971), structuralist (Lévi-Strauss, 1958, 1973) and mutual equivalence (Wallace, 1970)) for which culture should be sought in the mind of people. There is a search for the inferred conscious and unconscious cultural codes, for the tacit, taken-for-granted, assumptions that each (or every) culture engraves in a unique pattern in the minds of its bearers. The cognitive school with Goodenough as the main proponent (sometimes referred to as the ethnographic school), views culture as learned standards for perceiving, believing, evaluating and acting. Culture is a set of functional cognitions organized into a system of knowledge and containing

"whatever it is one has to know or believe in order to operate in a manner acceptable to its members."  
(Goodenough, 1971, p. 28)

"Cultures then are not material phenomena; they are cognitive organizations of material phenomena."  
(Tyler, 1969, p.3).

The study of organizational culture within that perspective would call for the elaborate elicitation of members' mental constructs about beliefs and perceptions, about the conceptual model of the organization that each participant has formed. At the limit, organizations come to be viewed as social artefacts of members' shared cognitive maps. Traces of such an orientation may be found in the organizational climate literature (Tagiuri, 1968; Payne and Pugh, 1976) and in the recent writings on organizational learning (Argyris and Schon, 1978; Hedberg, 1979).

With Lévi-Strauss, the proponent of the structuralist school, cultural anthropology takes on the allure of a search for cultural universals, for immanent, unconscious, structures. These cultural universals would be found in the structure and processes of mind (or

brain, a residual ambiguity). Cultural products and artefacts, immensely varied in their tangible manifestation, should be considered as clues with which to break the universal cipher stored in Man's unconscious. In a synthetic statement, Lévi-Strauss writes:

**"...kinship systems** are elaborated by the mind at the level of unconscious thought; and the reappearance, in distant regions and in deeply different societies, of kinship forms, marriage roles and similar attitudes toward kins, etc., leads to believe that, in all cases, the observed phenomena result from the interplay of general but hidden laws."<sup>1</sup>

The Anglo-American (as opposed to the French or even European) stream of organizational research contains very few direct references to such Lévi-Straussian concepts (for a recent instance, see Turner, 1983). However, many theorists and researchers make the implicit assumption that the organizational or management concepts and theories they propose are of universal applicability. Still other researchers conclude, as a result of their cross-cultural studies of organizations, that some organizational forms and processes and, in particular, some relationships between forms, processes and contextual factors, are widespread, indeed "universal" (Pascale 1978; Tracy and Azumi 1976; Hickson, Hinings, McMillan and Schwitter 1974), but the foundations of this universality are not articulated (Child, 1981).

In neither of these cases, however, is any reference made to these "universals" being linked to general principles of the "managerial mind". An adaptation of such Lévi-Straussian concepts to the study of organizations would posit hypotheses and research strategies along the following lines: organization forms, structures and processes, manifold in their superficial manifestations, actually result from the permutations and transformations of universal and unconscious processes of the managerial mind (or, to be even more "universal", of the human mind).

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<sup>1</sup> Translated from the French by the author.



This is an intriguing thesis, some faint traces of which may be found in various and scattered writings on the "managerial mind" (Ewing, 1964; Summer, O'Connell and Perry, 1977), on managers' cognitive styles (McKenney and Keen, 1979) and on the relationship between the structure of the brain and competence in various managerial tasks (Mintzberg, 1976).

Perhaps, March and Simon (1958) come closest to that thesis when proposing that the limitations on "human intellectual capacities" translate into specific organizational processes and behaviour. They state that "the basic features of the organization structure and function derive from the characteristics of human problem-solving process and rational human choice" (March and Simon, 1958: 169).

Since these limitations and properties of human cognitive processes are, presumably, universal and exert a critical influence on the functioning of organizations, to that extent, March and Simon may be said to propose the Lévi-Straussian concept of organization forms and processes as social manifestations of universal and unconscious processes of the human mind.

Wallace (1970) of the mutual equivalence school, is a cognitivist who propounded a very different concept of culture. Culture becomes a system of instrumental cognitions, mutually predictive of behavior, which allow human beings with very different motivations and cognitive orientations, to nevertheless organize cooperative strivings and participate in the social life of a community. It is a concept of culture stripped of the illusions of common goals and purposes, barren of shared perceptions, beliefs and meanings, except for that limited set of cognitions that serve to cue and predict each other's behavior. Viewed as mutual equivalence structures, culture is made of policies "tacitly and gradually concocted by groups of people for the furtherance of their interests, and contracts established by practice between and among individuals to organize their strivings into mutually facilitating equivalence structures" (Wallace, 1970, p. 261).

The study of organizational culture from this perspective would mean charting the complex network of individual cognitions and motives for involvement, the idiosyncratic calculus of stakes in the preservation and furtherance of the organization, the codified framework for the mutual prediction of behavior. This view of "culture" is almost opposite to the conventional meaning attached to this concept, with its evocation of "shared values, beliefs and norms". In this perspective, organizations become the locus of intersection and synchronization of individual utility functions, the somewhat fortuitous site where actors' micromotives coalesce into organizational macro-behavior. Organizations are convenient means through which participants seek to achieve their varied ends.

Organization theorists recognized, the existence of such calculated involvement by devoting a good deal of attention to members' reasons for participation (Barnard, 1938; March and Simon, 1958; Etzioni, 1961).

However, Weick (1979) is the only researcher to have made explicit use of Wallace's mutual equivalence concept in an organizational context (Allaire and Firsirotu, 1984a).

Among the proponents of culture as ideational system, a second group, represented by the symbolic school (Geertz, 1973; Schneider, 1979) sees culture as located in the products of mind. For Geertz, the main representative of the symbolic school, the strict cognitivist emphases of the first group are mistaken, overly influenced by research and concepts borrowed from linguistics. The symbolic, or semiotic, school argues that culture should not be looked for in people's heads but in the "meanings" and "thinkings" which are shared by social actors. Influenced by Schutzian phenomenology and Parsonian sociology, Geertz is an eloquent proponent of culture as a fabric of meaning in terms of which social phenomena may be "thickly" described. Culture consists of "traffic in significant symbols and its natural habitat is the house yard, the marketplace and the town square" (Geertz, 1973, p. 45). Those significant symbols, or products of mind, constitute the raw materials for the interpretation of the ordered system of meanings in terms of which social interaction takes place.

For the symbolic school, the linkage or integration between the individual actor and the cultural system is an explicit subject of inquiry, one with immediate and considerable relevance to organizational culture. Indeed, it is then possible, (as shown in chapter 1, pp 24-26), to identify four possible modes of integration and relationship between the culture of an organization and the actor's personal construing and use of these meaningful materials: 1°) Perfect and total replication in the individual, of the organization's system of symbols and meanings, which then powerfully condition his/her responses; 2°) partial replication, whereby the set of public organizational symbols is imperfectly reproduced in individual cognitions, having been modified, tampered with, by the particularities and vagaries of the actors' personality and experiences inside and outside of the organization; 3°) the meta-cultural mode, whereby the individual understands the system of public symbols of the organization and uses it to anticipate and predict the behavior of the organization's members who participate in its culture; 4°) an unintegrated mode, whereby the individual exhibits a strictly calculative, utilitarian relationship with the organization.

Up to now, the texts on organizational culture have nothing more to say on the question of the relationship between individual and culture, than what is found in the "socialization" literature. Difficult, but fundamental issues must be addressed in this regard.

To adopt the symbolic concept for the study of organizational culture, shifts the emphasis from the individual cognitive structure as the locus of culture, to the shared meanings attached to life, events and actions within the organization; furthermore, it calls for an explicit enquiry into the relationship between culture as an ideational, symbolic system and the sociostructural components of the organization.

The symbolic concept of culture, albeit in a truncated version, often limited to a consideration of ideational aspects and to much fretting about "meanings" and "symbols", is quite pervasive in the organizational literature. It spans a wide spectrum of orientations. As

collective meaning-structures generated by the organization's history, founders and past leaders, maintained or modified by presently dominant actors, organizational culture, often under different pseudonyms, has been the butt of research of the Actionalists (Silverman, 1970) and Institutionalists (Selznick, 1957; Clark, 1972; Rherman, 1973; Pettigrew, 1979; Elridge and Crombie, 1974; Harrison, 1972; Handy, 1976).

Symbolic interactionism (Brown, 1978), ethnomethodology (Goffman, 1957; Bittner, 1965; Turner, 1974) and phenomenology (Burrell and Morgan, 1979; Smircich, 1983; Mitroff, Kilmann and Sexton, 1983) have also provided lenses for the examination of organizational life and processes along the line of the symbolic concept of culture. Then, organizations become figments of participants' sense-making out of social events, social constructions emerging from actors' intersubjective attribution of meaning. However, it should be pointed out that the difficult issues of the mode of integration between individual and culture and between culture and structure are never dealt with in an explicit manner in this organizational literature.

#### 4.3 Synchronic Versus Diachronic Processus

Within the schools of culture as ideational system, there tends to be a more or less explicit bias in favor of a synchronous study of culture (except for the symbolic school which is very preoccupied with the dynamic processes of meaning creation and change). However, among those anthropologists, usually of an earlier time, who studied cultures as sociocultural systems, the time dimension demarcated clearly the functionalists (Malinowski) and structural-functionalists (Radcliffe-Brown) from the historical-diffusionists (Boas, Benedict, Kluckhohn, Kroeber) and ecological-adaptationists (White, Service, Rappaport, Wayda).

The synchronic approach focuses on cultures caught at a specific point in time and space with their unique solutions to the problems of economic and social life. Antecedent factors and influences are not

negated but are regarded as redundant and secondary to the investigation of present-day structures and processes. The functionalist and structural-functionalist schools of culture are prime examples of the synchronic approach to culture.

In the diachronic perspective, culture is a dynamic process concerned with cultural change, seen either as a process of adaptation to the environment (the ecological-adaptationist school) or as a historical product, as a sequence of ideas and institutions developed within the culture or borrowed from other cultures (the historical-diffusionist school).

Within the synchronic approach, the functionalists best represented by Malinowski, see culture as an instrumental apparatus by which a person is put in a better position to cope with the concrete specific problems faced in the course of need satisfaction. Manifestations of culture such as institutions and myths are explained by their functional necessity for the satisfaction of basic human needs.

With Radcliffe-Brown and structural-functionalism, (also synchronic) culture is an adaptative mechanism by which human beings acquire mental characteristics (values, beliefs) and habits that enable them to live a social life as an ordered community in a given environment. Culture is a component of a social system that includes a socio-structural component, to maintain an orderly social life, and adaptation mechanisms, to maintain society's equilibrium with its physical environments.

The ecological-adaptationist school takes a diachronic perspective and sees culture as a system of socially transmitted behavior patterns that serve to relate human communities to their ecological settings. Sociocultural systems and their environments are involved in dialectic interplay, in a process of reciprocal, or feedback causality. Neither environment nor the sociocultural system is a "given", but each is defined in terms of the other; the environment is not merely a set of contextual factors which limit or constrain the development of the

sociocultural system; it has an active, selective role in channeling the evolution of culture which, in turn, influence environmental characteristics.

The historical-diffusionist school regards culture as consisting of temporal, interactive and autonomous configurations or forms which have been produced by historical circumstances and processes. Anthropologists in this tradition are concerned with migrations of cultural traits from system to system and from place to place (through diffusion processes) and with changes taking place in a system as a result of acculturation and assimilation processes.

In the synchronic perspective (functionalism and structural-functionalism), the influence of historical and environmental circumstances in shaping the particular cultural and structural characteristics of a society, is acknowledged but not assessed nor studied in any depth. It is the presently extant form of the culture which is of interest, which must be understood. The complex of environmental and historical factors that produced a particular culture are relevant only insofar as they contribute to an appreciation of contemporary phenomena.

Each of these schools of cultural anthropology has a parallel of sort in the field of organization theory (Table 4-2). A holistic, synchronic, functionalist and structural-functionalist concept of organization has been the dominant view for a considerable period of time. That organizations as sociocultural systems reflect (or ought to) man's quest for need satisfaction (Human Relations school); that they are theaters for the playing out of man's needs (Mc Clelland, 1965); that they are the social prolongements of dominant actors' values and preferences (Business Policy school).

The ecological-adaptationists find a striking resonance in the contingency theorists of all hues (Thompson, 1967; Lawrence and Lorsch, 1967; Burns and Stalker, 1961; Blau and Scott, 1961; Katz and Kahn, 1966; Aldrich, 1979; Pfeffer and Salancik, 1978). According to this

**Table 4-2**

**DEFINITIONS OF CULTURE AND LINKAGES TO  
ORGANIZATION AND MANAGEMENT LITERATURE**

SCHOOLS	DEFINITIONS OF CULTURE	LINKS WITH ORGANIZATION/MANAGEMENT LITERATURE	MAIN THEORISTS AND RESEARCHERS IN ORGANIZATION/MANAGEMENT THEORY
<b>ORGANIZATIONS AS SOCIOCULTURAL SYSTEMS</b>			
FUNCTIONALIST (Malinowski)	Culture is an instrumental apparatus by which a person is put in a better position to cope with the concrete specific problems faced in the course of need satisfaction. Main manifestations of culture (institutions, myths, etc.) are to be explained by reference to the basic needs of human beings.	The sociocultural system of organizations will, or ought to, reflect man's quest for need satisfaction through work and organizational participation. Organizations are theaters for the playing out of man's needs. To some extent, organizations are social enactments of participants' quest for need satisfaction.	<ul style="list-style-type: none"> <li>• Human Relations School (Mayo, Roethlisberger et al.)</li> <li>• Social Man School (Homans; Zalesnick)</li> <li>• Self-actualizing Man (Maslow; McGregor; Likert; Argyris)</li> <li>• McClelland on entrepreneurial and managerial motivations</li> <li>• The Business Policy field (Andrews, Outh, Learned, Christensen, etc.)</li> </ul>
STRUCTURAL-FUNCTIONALIST (Radcliffe-Brown)	Culture is made up of those mechanisms by which an individual acquires mental characteristics (values, beliefs) and habits that fit him for participation in social life; it is a component of a social system which also includes social structures, to maintain an orderly social life, and adaptation mechanisms, to maintain society's equilibrium with its physical environment.	An organization is a society writ small. It is a purposive social system with a "value" subsystem which implies acceptance of the generalized values of the super-ordinate system and which thus legitimizes the place and role of the organizations in the larger social system. <u>Organizations are functional enactments of society's legitimating values and myths.</u>	<ul style="list-style-type: none"> <li>• The Structural-Functionalist School (Parsons; Barnard; Crozier)</li> <li>• Complex Man (Schein; Bennis)</li> </ul>

Table 4-2 (cont'd)

**DEFINITIONS OF CULTURE AND LINKAGES TO  
ORGANIZATION AND MANAGEMENT LITERATURE**

SCHOOLS	DEFINITIONS OF CULTURE	LINKS WITH ORGANIZATION/MANAGEMENT LITERATURE	MAIN THEORISTS AND RESEARCHERS IN ORGANIZATION/MANAGEMENT THEORY
ORGANIZATIONS AS SOCIOCULTURAL SYSTEMS			
<b>ECOLOGICAL - ADAPTATIONIST</b>  (White, Service, Rappaport, Vayda, Harris)	Culture is a system of socially transmitted behavior patterns that serve to relate human communities to their ecological settings. Sociocultural systems and their environments are involved in dialectic interplay, in a process of feedback or reciprocal causality.	Organizations are social enactments of ideational designs-for-action in particular environments. They take on varied forms through a continuous process of adaptation to, or selection by, critical environmental factors (which include the <u>society's culture</u> ). Disparities in these broadly defined environments (perceived or real, present or future) result in different organization forms and strategies in a never ending, and sometimes unsuccessful, quest for fit and equilibrium between the organization and its environment.	<ul style="list-style-type: none"> <li>● Open system theory (Katz &amp; Kahn)</li> <li>● Contingency theorists (Thompson; Perrow; Lawrence &amp; Lorsch; Burns &amp; Stalker; Blau &amp; Scott)</li> <li>● Cross-cultural studies of organizations (Dore; Tracy &amp; Azumi; Pascale; Hickson, Hennings et al.; Tannenbaum et al.; etc.)</li> <li>● The Socio-technical system perspectives (Emery and Trist; Miller &amp; Rice)</li> <li>● The Aston Group (Pugh; Hickson; et al.)</li> <li>● The Population Ecology school (Hannan &amp; Freeman; Aldrich)</li> <li>● The new school of organization-environment relations (Pfeffer &amp; Salancik; Meyer and Associates)</li> </ul>
<b>HISTORICAL - DIFFUSIONIST</b>  (Boas, Benedict Kluckhohn, Kroeber)	Culture consists of temporal, interactive, superorganic and autonomous configurations or forms which have been produced by historical circumstances and processes.	Organizational forms arise and vanish in the ebb and flow of historical circumstances. Specific patterns of organizational structures and strategies are characteristic of historical phases of the organization. Organizations are social actualizations of their genesis and historical transformations.	<ul style="list-style-type: none"> <li>● Chandler</li> <li>● Stinchcombe</li> <li>● Scott</li> <li>● Filley and House</li> </ul>



Table 4-2 (cont'd)

DEFINITIONS OF CULTURE AND LINKAGES TO  
ORGANIZATION AND MANAGEMENT LITERATURE

SCHOOLS	DEFINITIONS OF CULTURE	LINKS WITH ORGANIZATION/MANAGEMENT LITERATURE	MAIN THEORISTS AND RESEARCHERS IN ORGANIZATION/MANAGEMENT THEORY
CULTURE AS AN IDEATIONAL SYSTEM			
COGNITIVE (Goodenough)	A system of knowledge, of standards for perceiving, believing, evaluating and acting. Culture is the form of things that people have in mind, their model for perceiving, relating and otherwise interpreting them. It consists of whatever it is one has to know or believe in order to operate in a manner acceptable to the members of one's society. As a product of human learning, culture consists of the ways in which people have organized their experience of the real world so as to give it structure as a phenomenal world of forms, that is their percepts and concepts.	<p>1. Organizational climate is defined as an enduring and widely shared perception of the essential attributes and character of an organizational system. Its primary function is to cue and shape individual behavior toward the modes of behavior dictated by organizational demands.</p> <p>2. Organizations are social artefacts of members' shared cognitive maps. Organizations develop world views (Hedberg), codes (Arrow), or public maps (Argyris and Schön) that provide the framework for organizational actions.</p> <p>3. A cultural group's characteristic way of perceiving the man-made part of its environment; it is composed of attributes of cognitive structures, such as beliefs, attitudes, norms, values, goals.</p>	<ul style="list-style-type: none"> <li>• Organizational climate (Tagiuri; Evan; Campbell et al; James &amp; Jones; De Cotiis and Koys; Schneider; Payne &amp; Pugh, etc.)</li> <li>• Organizational learning (Argyris and Schön; Hedberg; Arrow; Heirs and Pehrson)</li> <li>• Cross-cultural studies of managers' subjective culture (Triandis; Haire, Ghiselli &amp; Porter; Heller &amp; Porter)</li> </ul>

Table 4-2 (cont'd)

**DEFINITIONS OF CULTURE AND LINKAGES TO  
ORGANIZATION AND MANAGEMENT LITERATURE**

SCHOOLS	DEFINITIONS OF CULTURE	LINKS WITH ORGANIZATION/MANAGEMENT LITERATURE	MAIN THEORISTS AND RESEARCHERS IN ORGANIZATION/MANAGEMENT THEORY
	CULTURE AS AN IDEATIONAL SYSTEM		
STRUCTURALIST (Lévi-Strauss)	Shared symbolic systems that are cumulative creations of mind; universal but unconscious principles of mind generate cultural elaborations and artefacts, the diversity of which results from the permutations and transformations of formally similar processes and latent structures. Since all cultures are the product of the human brain, there must be features that are common to all cultures.	Are organizations, in spite of their manifold character, structure and processes, social manifestations, at a deeper, structural, level, of universal and unconscious processes of mind? March and Simon do claim that organizational structures and processes reflect the characteristics and limitations of human cognitive processes. Do managers share similar structures of mind, similar cognitive styles and processes? The management literature on cognitive styles, on the hemispheres of the brain and their relationships to management, come close to this issue without ever tackling it explicitly.	<ul style="list-style-type: none"> <li>• March and Simon's cognitive assumptions</li> <li>• Cognitive style research (McKenney and Keen; Kolb)</li> <li>• Left and right hemisphere of the brain (Mintzberg)</li> <li>• The Managerial Mind (Sumner, O'Connell and Perry; Ewing)</li> </ul>
MUTUAL-EQUIVALENCE STRUCTURE (Wallace)	Culture is a set of standardized cognitive processes which create the general framework that enables a capacity for mutual prediction and interlocked behavior among individuals. It is an implicit contract that makes possible the maximal organization of motivational and cognitive diversity with only partial inclusion and minimal sharing of beliefs and values on the part of "culture bearers".	Organizations are the locus of intersection and synchronization of individual utility functions, the somewhat fortuitous site where actors' micro-motives coalesce into organizational macrobehavior. Coordination of behavior occurs not through a sharing of goals but through the elaboration of mutually predictive cognitive structures. Members' decision to partially participate reflects their calculus of relative costs and inducements.	<ul style="list-style-type: none"> <li>• The concepts of "causal maps" and mutual equivalence found in Weick et al.</li> <li>• The "calculus of participation" elements in Barnard; March and Simon; Etzioni; Silverman; Selznick.</li> <li>• Ouchi and Jaeger's Type A organization, etc.</li> </ul>

Table 4-2 (cont'd)

DEFINITIONS OF CULTURE AND LINKAGES TO  
ORGANIZATION AND MANAGEMENT LITERATURE

SCHOOLS	DEFINITIONS OF CULTURE	LINKS WITH ORGANIZATION/MANAGEMENT LITERATURE	MAIN THEORISTS AND RESEARCHERS IN ORGANIZATION/MANAGEMENT THEORY
CULTURE AS AN IDEATIONAL SYSTEM			
SYMBOLIC  (Geertz, Schneider)	Culture is the fabric of meaning in terms of which human beings interpret their experience and guide their action. It is an ordered system of shared and public symbols and meanings which give shape, direction and particularity to human experience. Culture should not be looked for in people's heads but in the "meanings" shared by interacting social actors. The analysis of culture therefore is not an experimental science in search of laws but an interpretive one in search of meaning.	<ol style="list-style-type: none"> <li>1. Organizations as a result of their particular history and past or present leadership, create and sustain systems of symbols which serve to interpret and give meaning to members' subjective experience and individual actions, and to elicit, or rationalize, their commitment to the organization. Such collective meaning-structures are manifested in ideologies, myths, values, sagas, "character", "emotional structures" etc.</li> <li>2. Organizations are figments of participants' ascription of meaning to, and interpretation of, their organizational experience. They have no external reality as they are social creations and constructions emerging from actors' sense-making out of ongoing streams of actions and interactions. The actor's own actions are first order determinants of the sense that situations have.</li> </ol>	<ol style="list-style-type: none"> <li>1. ● Interpretive, actionalist sociology of organizations (Weber; Silverman)</li> <li>● Institutional school (Selznick; Clark; Rhenman; Pettigrew; Eldridge and Crombie; Wilkins; Harrison; Berg; Stymne)</li> <li>2. ● Phenomenological symbolic interactionism and Ethno-methodology (Goffman; Turner; Brown; Garfinkel; Cicourel; Bittner; Burrell and Morgan)</li> </ol>

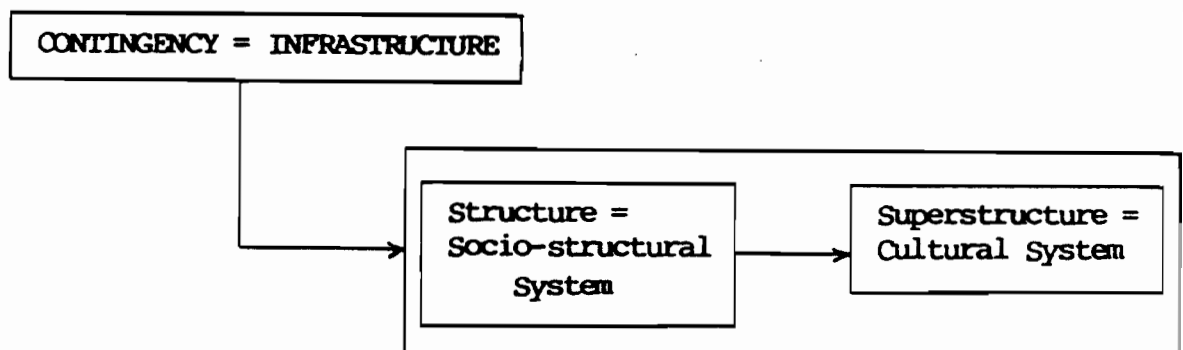
view, organizations are sociocultural systems that take on various forms through a continuous process of adjustment to, and acting upon, critical environmental factors.

The historical-diffusionists do not have any direct equivalence in the field of organization theory. However, a number of authors have studied organizations as the result of historical processes. For Chandler (1962; 1977), Stinchcombe (1965), Filley and House (1969) and Mintzberg (1979; 1982) organizational forms arise and vanish in the ebb and flow of historical circumstances. Specific patterns of organizational structures and strategies are characteristic of historical phases of one organization or of a population of organizations.

#### 4.2.4 Sources of Culture and Structure and their Dynamics

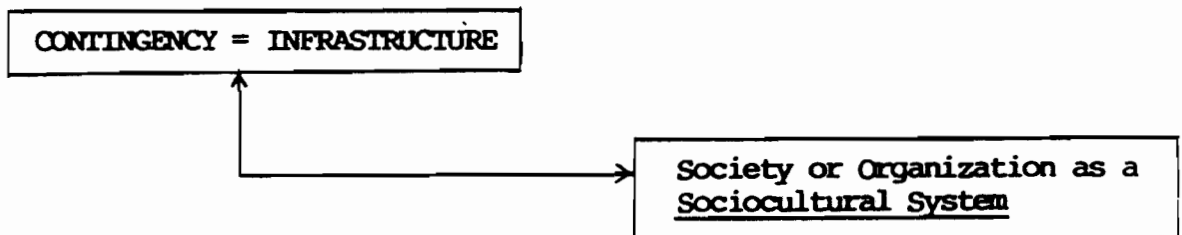
The survey of the anthropological schools of thought and of their equivalent in the organization theory on the concept of culture, has provided us with a number of insights as to the possible sources of culture. However, few writers on culture, either in anthropology or in organization theory are very explicit about them.

Marvin Harris (1979), a contemporary ecological-adaptationist of Marxist ilk, is one of them. He states clearly, that infrastructural factors (means of production and reproduction, technology: what we called contingency) tend to define the particular character of structure and superstructure. In this cultural materialist view, the nature and direction of influence are primarily as follows:



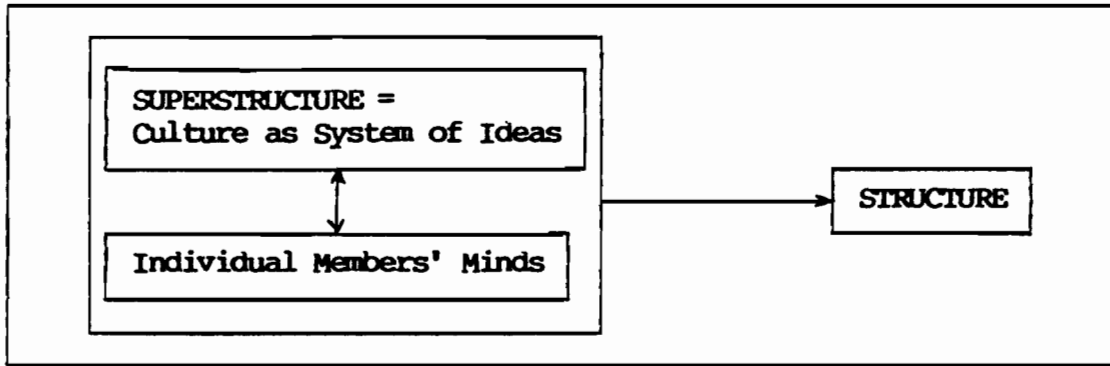
However, a close reading of the various schools of thought, in anthropology and organization theory reveals in each case, an implicit focus on a certain factor and direction of influence.

Indeed, for the traditional ecological-adaptionist school, in both anthropology (White, Service, Rappaport, Wayda) and organizational theory (Thompson, 1967; Lawrence and Lorsch, 1967; Burns and Stalker 1961; Blau and Scott, 1961; the Katz and Kahn, 1966; Aldrich, 1979; Pfeffer and Salancick, 1978) societies or organizations, as sociocultural, systems are involved in dialectic interplay with their environments, in a process of reciprocal, or feedback causality. Neither environment nor culture is a "given", but each is defined in terms of the other; the environment is not merely a set of exogeneous factors which limit or constrain the development of a sociocultural system; it has an active, selective role in channeling the evolution of the system which, in turn, influences environmental characteristics. In this view, the implied nature and direction of influence is as follows:

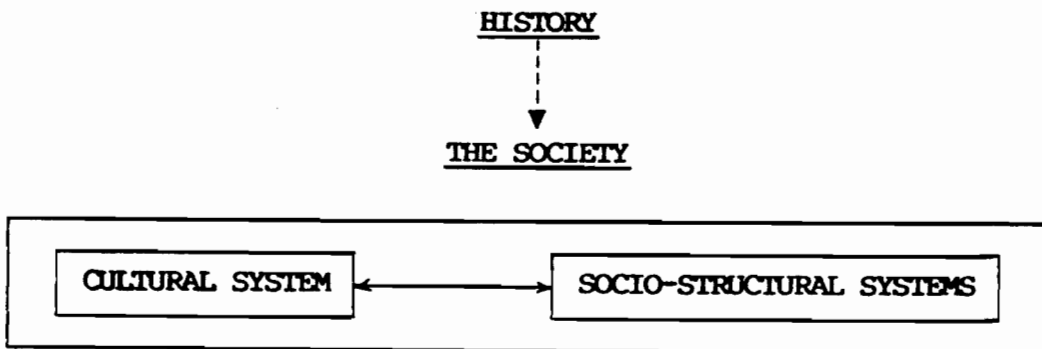


As it can be easily noticed, they hold a holistic concept of society or organization, whereby the ideational components (i.e. pattern of shared meanings and values, system of knowledge and beliefs) are interwoven with, and inseparable even conceptually from the socio-structural components.

For the cognitive (Goodenough, 1971), structuralist (Lévi-Strass, 1973) and mutual equivalence (Wallace, 1970) schools, possible exogenous factors as sources of culture are disregarded, or barely discussed. The focus is entirely on the content and relationship between structure and culture wherein the superstructure (i.e. cultural system as manifested in individual members' cognitive representations) is given primacy and directive influence over structural factors:

THE SOCIETY

With Geertz and the symbolic school, the focus continues to be mainly on the content and the relationship between culture and structure, but the relationship is now bi-directional. Neither one (i.e. culture or structure) is totally determined by the other; each component is characterized by particular processes of change, by its own dynamics. Change in one is not automatically reflected in the other; therefore, a state of relative dissonance and incongruency may easily develop between these two systems. The relationships are as follows:



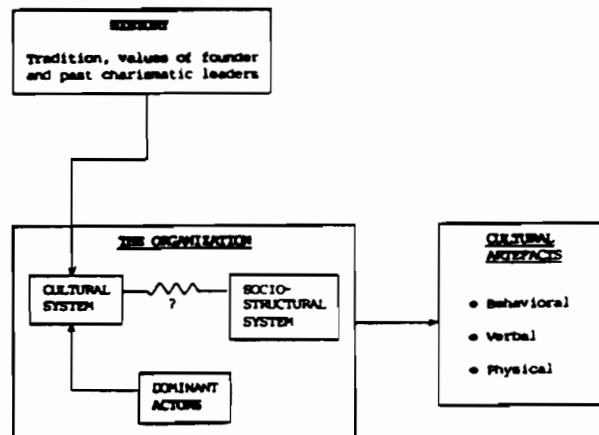
Furthermore, the symbolic school is preoccupied with history, as a source of meaning creation. But that only in so far as it permits the explanation of processes of change in a society. It is for this reason that the arrow representing the direction of history's influence on society is interrupted.

For the functionalist and structural-functionalist schools antecedent factors and influences are not negated but deliberately eliminated from the study of present-day structures and processes. The content and relationship between culture and structure do not arise as an issue as these students hold a holistic view of society.

Of course, it goes without saying, that the historical-diffusionist school focuses on history as "the factor" influencing the development of a specific sociocultural configuration.

#### 4.4.1 The Implicit Model of Culture in the Management Literature

Many of the models for the examination of society have found their way in one or the other approach or method for the study of organizations (see Allaire and Firsirotu, 1984 (a) for a detailed discussion of this point). However, the growing body of literature on the concept of organizational culture has been virtually untouched by these considerations and vying views on such critical issues as the locus of culture, its sources, the relationship and dynamism between the cultural and structural components of an organization. In fact, with a few exceptions (Hofsteade, 1981; Handy, 1976), the texts on culture in organization deal almost exclusively with the contents of the cultural system; and when they deal to any extent with the factors which may have shaped an organization's particular culture, they tend to propose a model along the following lines: (Eldridge and Crombie, 1974; Pettigrew, 1979; Ouchi, 1979; Silverzweig and Allen, 1976; Smircich, 1981; Deal and Kennedy, 1982; Allen and Kraft, 1982; Wilkinson, 1983; Sathe, 1983; Schein, 1983).



Obviously, this is a limited view of how culture originates and develops. First, it tends to narrow the scope of historical influences on organization; history should be conceived broadly to include an organization's genesis, historical transformations, successive leaders, past misfortunes and successes, as these tend to produce a cumulative stock

of symbolic materials, an emerging world view and ethos that permeate the life and functioning of the organization. Second, society's influence on shaping the particular values of an organization is absent. Society refers to the ambient social, cultural, political and judicial environments in which an organization has its roots, to the particular geography, climate and history of that society, its ethnic and religious character and diversity, the nature and heterogeneity of its values. The consideration of this factor raises a number of relevant questions.

How did ambient society's values and culture seep in the organization? To what extent, may an organization's culture differ from the culture of the society in which it operates? If the society is heterogeneous, does the organization's culture reflect primarily the values system of the subgroup in the population from which dominant actors were drawn? What are the problems of integration into the organization for individuals with different value systems? These questions are of critical importance to multinational corporations and to any large organization operating in a multi-racial, poly-ethnic or pluri-religious society.

Furthermore, contingency factors are omitted. Every organization is set in a nexus of contingent influences arising from the particular economics, technology and regulations of its industry. These elements, to a variable extent, tend to foster in all organizations within an industry, similar values, assumptions, expectations and patterns of response to their environments. These particularities of an industry tend to influence all participating organizations in similar ways. In some cases (Canadian chartered banks, railway companies, for example), these contingent factors assume such importance that an individual can move from one organization to another in an industry with minimal disorientation and loss of bearing. The published materials on organizational culture have thus far tended to overemphasize leadership factors in the creation of cultures as if the organizational cultures were not a reflection of, and adjustment to, critical social, political, economic and technological environments.



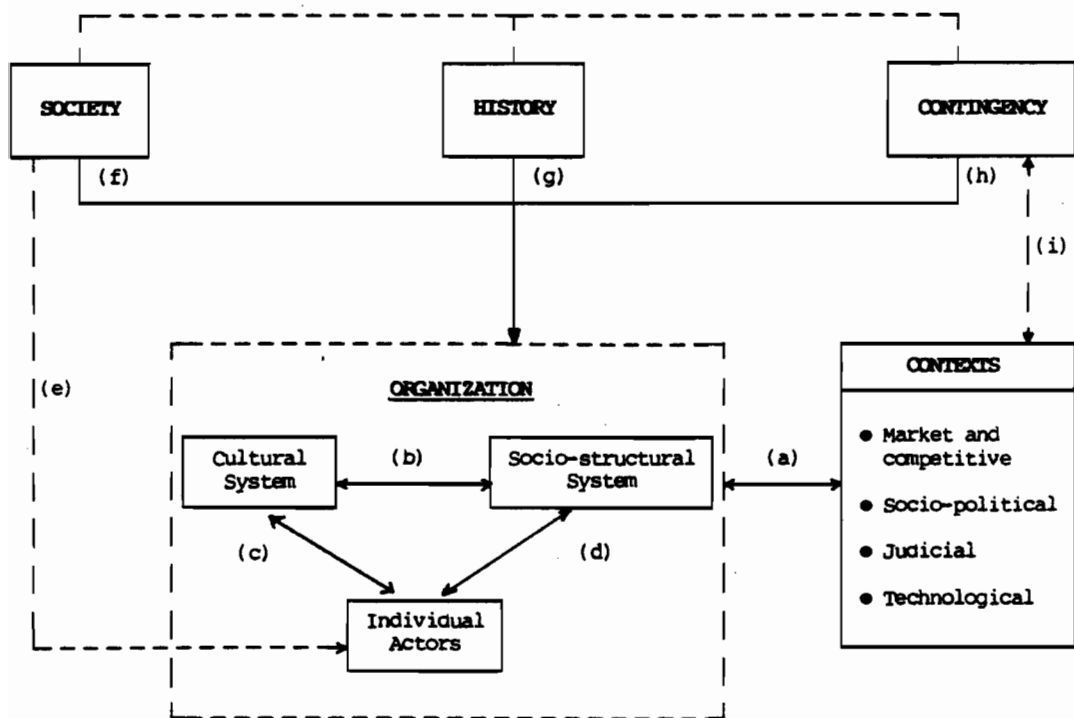
As to the complex relationship between culture and sociostructural system in an organization, clear answers must be provided to difficult questions: Is culture, as a system of ideas, as a mental superstructure, the prime mover with changes at that level, subsequently reflected in the sociostructural system or, is the causal relationship in the other direction (i.e. from structure to superstructure)? In the first instance, true change occurs at the level of mental superstructures, which would imply that an effective change strategy must aim first and foremost at the modification and reorientation of actors' cognitive structure. In the latter case, of course, the process is inverted with structure acquiring primacy. Or is it, as with the symbolic concept of culture that, culture and structure influence each other, neither one acquiring a dominant role? Finally, the model has virtually nothing more to say on the problematic integration of individuals into a culture, than what is found in the texts on the socialization of employees.

#### **4.5 A Multi-Factor Model for the Study of Organizational Culture**

These considerations on the incomplete nature of the models of culture so far advanced, lead to a proposal of a multi-factor model for the study of organizational culture. (Figure 4.1). This model will take into consideration the simultaneous action of several exogeneous factors (society, history and contingency) which influence the development of an organization and the synchronous, reciprocal influence of contemporary actors and structure on culture. Their relative weight and interaction in each specific case is an issue to be settled empirically.

I shall not discuss further the model as it was presented in a detailed form in Chapter 1 (pp. 14-28). However, for the sake of clarity, I shall summarize its main characteristics and outline some of the answers it provides to a number of thorny issues identified so far.

Figure 4-1

CONCEPTUAL MODEL OF ORGANIZATION AS SOCIETY

First, this model implies a view of organizations, that is inspired by more recent work in anthropology, wherein culture and social structures are not necessarily isomorphic and synchronized.

This means that I embrace the view of culture as an ideational system. The notion of organizational culture as an ideational system provides a versatile conceptual tool that has proven its usefulness in cultural anthropology and which may add considerably to our evolving knowledge about the processes of organizational stagnation, decline, adaptation and rejuvenation. It stands to reason that such a view, implies that the organization's social structure and its cultural system may be subjected to different degrees of external pressures and characterized by different adaptation and integration mechanisms; as a result the two may be in a state of tension, disharmony or dissonance, "dissynchronized" would say Chalmers Johnson (1966) and bring about, as a result, the decline of the social system (society or organization) unless radical change (i.e. revolution) is undertaken. This notion is useful therefore for the theory of radical change I propose and test empirically in this thesis.

Three concepts of culture fit this description: the cognitive, the mutual-equivalence and the symbolic one. As already mentioned with the first two schools, culture is located in the minds of men and consists of learned standards for behaving and acting in an acceptable manner, (the cognitive school) and of cognitive structures for mutual expectation and prediction of behavior) (the mutual-equivalence school); for the third one, (i.e. the symbolic school), culture is located in products of mind, shared, social and public, and in terms of which social interaction takes place.

Proponents of these conflicting views have engaged in spirited, sometimes acrimonious debates. If culture is located in individual minds, what is meant then by culture as the shared property of groups, is the legitimate question of the symbolic school; Wallace's concept of culture as mutual-equivalence does not depend so much on extensive sharing, but merely postulates the development of a capacity for mutual

prediction of behavior in a social setting. Goodenough however had to face up to this issue squarely; his attempts to extricate himself from this predicament through the notion (borrowed from linguistics) of cultural competence and cultural performance, are not entirely convincing (Goodenough, 1971).

For the symbolic school, culture consists of "traffic in significant symbols among individuals, and as such the integration between the individual actor and the cultural system is an explicit subject of inquiry, with considerable relevance to organizational culture. (For a detailed discussion of this issue, see Chap. 1, pg. 24-26). Indeed, this notion when adapted to the context of organizations leads to novel insights about the possible modes of integration between individual members (i.e. employees) and the organization.

To adopt the symbolic approach to culture in organizations means therefore to address, squarely, the relationship between individual members and the culture of the organization studied.

Second, the concept of culture implied by this model is particularistic in the sense that culture is not viewed as universal, but rather as the resultant of the unique interaction of three sets of exogeneous, diachronic factors: history, society and contingency on the one hand and the concomitant influence of structural characteristics and present leadership on the other. Acceptance of this view of organizations as possibly endowed with "specific", "particularistic" cultures clearly eliminates from consideration those concepts of culture in organization that postulate either a close equivalence between the organization's values and those of the larger society (e.g. Parsonian structural-functionalism) or the operation of universal mechanisms which lay underneath manifest but superficial variations among organizations (e.g. the functionalist or structuralist concepts of culture).

The notion of organization-specific cultural or value systems raises the issue of course of societal legitimacy for those organizations. However, it may be that (1) all organizations do subscribe to

some basic values of the society from which they emerge, a fact which does not preclude wide and significant variations in ancillary or less fundamental values and cultural manifestations within organizations; (2) there is not one set of basic societal values from which the organization's functional purpose and legitimacy must necessarily flow; society itself is pluralistic, supportive of a broad array of different values to which organizations may legitimately subscribe; (3) the organization, as a "committed polity" with its own goals, value system or culture, nevertheless negotiates and develops support for its existence by appropriate strategies directed at critical segments of the larger society.

Methodologically, this view of culture implies a mixture of diachronic and synchronic investigations so as to capture both general and specific antecedent, exogeneous sources of cultural materials of an organization and the concomitant influence of its structural characteristics and dominant actors (present leadership).

Furthermore, diachronic and synchronic investigations provide also critical information on the degree of isomorphism between contingency and contextual factors of the organization. As discussed in Chapter 1 (pp 27-28), the dissonance between contexts and contingency, due to discontinuous changes in contexts may be at the very root of the misfit between an organization and its environment, and explain its poor performance and decline.

Thus, I propose a concept of culture in organizations, as a particular system of symbols largely shared by organizational members, (encoded in values and assumptions) that (1) was shaped by its history, ambient society and various contingency factors, and (2) is supported or tampered with, to a varying degree, by present structures and leadership.

Organizational culture, thus conceived, is a powerful tool to interpret organizational life and behavior and to understand the process of decay, adaptation and radical change in organizations.

**CHAPTER - 5**

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**METHODOLOGICAL CONSIDERATIONS  
AND  
HEURISTICS**

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## 5.1 Introduction

This chapter defines this thesis' specific areas of inquiry and the methods that were used to carry out this research. It builds upon the conceptual framework developed in chapter 1 and is closely linked to the schema presented as Figure 1-2 (on page 22) and reproduced as Figure 4-1 (on page 124).

A full understanding of any organization's functioning, of the processes of organizational growth, stagnation, decline and rejuvenation, would require an investigation of all relationships captured in Figure 4-1 [from (a) to (i)], both statically and dynamically. This would be an immense undertaking which would require an examination of many issues beyond the usual confines of policy and strategy research.

For instance, relationships (c) and (d) on the nature and modes of integration between the individual actors and the cultural or socio-structural systems, fall squarely within the realm of organizational behavior, and will not be part of my inquiry. Similarly, the role and impact of ambient society in shaping organizations (f) is a preoccupation of historians, anthropologists and, in management, of specialists in cross-cultural studies of organizations. I dealt only briefly with that issue to point out that, in the context of our particular study, this factor may not be critical. Relationship (e) falls within the purview of anthropologists, psychologists and, to a limited extent, organization behaviorists or personnel specialists, and will not be discussed further in the present study.

## 5.2 Areas of Investigation and Summary of Substantive Issues Addressed in the Thesis

In the context of this research in the field of Policy, the focus was on the relationship between an organization and its contexts (a), on the relationship between the cultural and socio-structural systems (b) and on the influences of the organization's history (g) and contingencies (h) in shaping these cultural and socio-structural systems.

Before discussing specific methods selected for this purpose and other methodological issues, I shall provide the reader with the summary of the substantive issues addressed in this thesis.

The following substantive issues were addressed:

#### 5.2.1 To What Extent and In What Ways Were the Railway and Trucking Industries Different from Each Other?

The answer to this issue was essential:

- a) to appreciate the role and the different impact of the railway vs trucking industries as contingency factors upon the culture and structure of CNX;
- b) as required information [i.e. differences between contingency factors (railways) and contexts (trucking) to explain the misfit, (reflected in huge losses), between CNX's theory of action (i.e. strategic thrust) and its relevant environment];
- c) to understand the strategic considerations, options and choices made at CNX during the turnaround phase.

#### 5.2.2 What Was the Nature of CNX's Cultural and Socio-Structural Systems at the Time It Was Created as a Separate Profit and Loss Center (1976-1978)

- . What is the genesis of CN and CNX?
- . What historical transformations characterize them?
- . Who were the successive leaders and what was their impact upon the organization's modes of thinking and operating?
- . What are the dominant contingency factors that bear heavily on the socio-structural and cultural systems of the organization?
- . What are the structural, tacit assumptions and values characteristic to the organization at that time?
- . What was the socio-structural system of CNX (strategy, structure, policies, operating systems, etc.) in 1976-1978?



The inference or assessment of the socio-structural and cultural context of CNX around 1976-78 was essential for at least two reasons: (a) to the extent that one accepts the notion that culture imbues actors with particular points of views, it helped our understanding of the main actors' explanations as to the root causes of the problems at CNX and their definition of appropriate corrective actions; (b) it provided us with a tool for assessing the relationship existing at that time, between the organizations' socio-structural and cultural system and the relationship that might result from changes in the socio-structural system, agreed upon at the upper management level as being necessary to improve the fit to the organization's environment.

The issue of the relationship between the cultural and socio-structural system of an organization is critical to this research's thesis: that the degree of consonance between these two components of the organization will determine its capacity to carry out the actions required by the nature and evolution of its environments.

### 5.2.3 What Is the Role Of, and What Are the Changes In the Cultural and Socio-Structural Variables in a Strategic Turnaround?

Getting at the dynamics of a strategic turnaround meant addressing and finding answers to a number of issues, such as:

- . What were the power relationships at play at CNX?
- . How were strategic options formulated at that time?
- . Were there dissidents, factions? What were the points of contention?
- . Did the options formulated contain evidence of new value orientations?
- . What were the steps, chronology and prerequisites of the chosen strategy?

- . How did CNX attempt and to what extent did it manage, to transform its culture and structure to adjust to the changed environmental conditions of the parcel and LTL market?
- . Was there an explicit or implicit "goal culture"?
- . What steps (explicit or implicit) were taken that were likely to influence the cultural system extant at the time, towards the "goal culture"?
- . What changes were made to the socio-structural system?
- . Did the set of acts during that period appear likely to have produced a new cultural system, consonant and synchronized to a new socio-structural system?

The answer to these questions have contributed to the enriching of the stock of knowledge concerning radical strategies undertaken to salvage a declining organization.

### 5.3 Contents and Methods

To study and address these substantive issues, I carried out the following operations:

#### 5.3.1 An Extensive Examination of the Industry Structure, Characteristics and Economics for the Small Package and LTL Business

This examination was made according to the canons of the "industrial organization paradigm" (Scherer, 1979) and of competitive industry analysis (Porter, 1980), on the basis of statistical evidence marshalled from CNX and from other pertinent sources (Statistics Canada, reports on Trucking Trends and Perspectives, documents of the Canadian Transport Commission, etc.)

### 5.3.2 An assessment of the Nature of CNX Cultural and Socio-Structural Systems at the Time It Was Carved Out into a Separate Division (Circa 1976), until the Turnaround Was Undertaken in 1979

At that time, CNX was an emanation of the CN corporation and its roots, cultural and structural, must be sought in the CN organization.

The determination of CNX's socio-structural make-up (formal structures, strategies, policies and management processes) in 1976-1978 did not create any serious difficulties. Abundant documentary evidence and historical records ("traces") exist which have allowed a faithful reconstruction. The assessment of the cultural system was a more delicate undertaking.

#### Assessment of Culture<sup>1</sup>

Culture was defined in this thesis as a particularistic system of shared and meaningful symbols (mythology, ideology, values) shaped by ambient society, the organization's history (and past leaders) and its contingency factors, supported, reinforced or tampered with by the organization's present leaders and extant socio-structural characteristics. It "gives shape, direction, particularity, and points to an ongoing flow of activity" (Geertz, 1973, p. 250). In this conception, "culture is not a power, something to which social events, behaviors, institutions or processes can be causally attributed: it is a context, something within which they can be intelligibly - that is, thickly - described" (ibid, p. 14). The interpretation of culture consists therefore in getting at this context, at background assumptions, at unquestioned values which color analyses, guide actions, give meaning to events within, or impinging upon, the organization. Organizational

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<sup>1</sup> The number of conceptual, epistemological and methodological issues raised in researching culture are staggering and would (indeed, have) fuel treatises on the subject. I am attempting here to chart a methodological course that is sensitive to many of these issues without carrying out an extensive examination of each issue raised!

culture may be viewed as an evolving stock of symbolic raw materials with which actors strive to construct a coherent, sensible, meaningful reality out of an otherwise chaotic and inscrutable flow of events.

There are three basic methods for achieving some understanding of an organization's culture as defined herein: participant-observation, depth interviews, documentary and archival records. I shall examine each briefly.

a) Participant-observation:

The preferred method of most ethnographers, it calls for prolonged residence (including if at all possible the assumption of a task or function) within the target culture to develop some degree of cultural competence. The researcher then aims at becoming a meta-cultural subject: a culturally competent observer who is not socialized to the mores and values of the society, who remains impervious to cognitive structuring by the culture under study. This assumes a capacity for cultural proximity and empathy to the point of "seeing the world through the eyes of a native"; and at the same time, it calls for the scientific detachment to objectively record, analyze, structure observations and sift empirical evidence so as to construct a faithful, unadorned representation of that culture.

In this latter, "scientific", task, the observer's own culture and theoretical inclinations with their pervasive and, at best, semi-conscious cognitive structuring and subtle conditioning, are a source of considerable difficulty and concern. The participant-observer must navigate a narrow path between the lure of "going native", of surrendering to the new culture's attraction, and the danger of imposing one's pre-set cognitive templates on ethnographic materials.

In organizational research, as in anthropology, ethnographic description also involves a long period of study within an organization, longitudinal analysis employing a wide range of observational techniques including face to face contact with organizational members, inter-

views with key informants, observation of rituals, search for stories, myths, the study of the specific vocabulary used in the organization as a key analytical tool in getting at the shared or taken-for-granted assumptions of the organizational members (Duncan, 1968; Cohen, 1974; Willis, 1975; Pettigrew, 1979; Martin, Petterson and Pride, 1979; Wilkins, A. 1979-1983; Daft and Wiginton, 1979). As in all ethnographic studies, the pitfalls are numerous.

Van Mannen (1979), on the basis of his extensive experience with this type of studies, warns of the cumulative effect of at least four sources of biases: first, the field worker's standards of relevance as to what and what is not worthy of observation; second, the "historically - situated" questions that are put to the people in the setting; third, the self-reflexion demanded of an informant; and fourth, the selection of which produced data will be analyzed.

Nevertheless, participant-observation, when permissible, remains a prime, if fragile, method for a thorough assessment of the symbolic system in use in a particular society or organization. In this present case, however, as I was interested in the cultural system at the time CNX was formed as an autonomous entity (1976-78), this obviously precluded considering this method.

#### **b) Depth Interviews and Other Elicitation Methods:**

In the cognitive school of culture, to which I do not subscribe, culture is located in the minds of culture bearers and therefore should be sought there. Through complex elicitation methods and interviews, those anthropologists attempt to get direct verbal evidence from which are inferred conscious and unconscious, cultural codes, the tacit taken-for-granted, assumptions, that each culture engraves in a unique pattern and design in the minds of its bearers. The elicitation of individual constructs and the assessment of the meaning attached to such constructs can be done by means of various techniques, such as: structured verbalization provided by Kelley's Role Repertory test (1967) and measurement of meaning along the lines of Osgood's semantic

differential (1957, 1964, 1974). The relevant cognitive structures would be those related to criteria of performance and success, goals, terminal and instrumental values (in Rokeach (1968)'s terminology), the perception of specific organizational characteristics (nature of authority and power, relationships among employees, career path, etc.)

This approach to the study of culture in organizations was mainly used in the empirical research on organizational climate (Forehand and Gilmer, 1964; Tagiuri, 1968; Triandis, 1972; Evan, 1976). These researchers assume that the culture (or climate) of an organization may be inferred from the members' characteristic way of perceiving the internal environment of the organization. "Climate" as defined in this organizational literature can actually be conceived of as "a cognitive concept of culture".

This type of research is also fraught with difficulties of many sorts. First, it assumes a willingness on the part of subjects to spend the time and effort required with the researcher and an ability on the latter's part to coax verbal evidence of sufficient quality and richness to correctly infer and generalize about unconscious or semi-conscious structures of mind within a culture.

A related difficulty is underlined by Giddens (1979)'s distinction between two forms of consciousness, discursive and practical. The former refers to "that which can be brought and held in consciousness" (p. 25); the latter covers a large stock of "tacit knowledge that is skillfully applied in the enactment of courses of conduct, but which the actor is not able to formulate discursively" (p. 57). It seems we know more than we can tell. Discursive consciousness covers that which can easily be tapped in interviews, a more or less extensive body of knowledge according to the glibness and articulateness of the respondent. However, that which is not available for discourse is not ipso facto, unconscious. Marked inter-subject differences in discursive consciousness are not indicative of similar differences in total (discursive plus practical) consciousness.

Finally, in my particular case, an additional difficulty of formidable dimension with that method is brought about by my intent to assess the culture of CNX around 1976-78. That would mean recapturing, through interviews with actors present at the time, the cultural context of that period. Such an attempt at retrospective reconstruction of semi-conscious or unconscious symbolic systems would be unproductive and misguided, as indeed my working assumption is to the effect that changes may have occurred in people's cognitive structures. Nevertheless, I used interviews to provide the supplementary data required to assess the cultural system of CNX in 1982-83. The main purpose of these interviews at that stage was to assess the degree of sharing in the dominant explanations of the firm's reality by main actors.

#### **c) Documentary Evidence and Archival Records:**

The most appropriate method, given my conceptual stance and practical research objective, will consist in searching for culture in: (1) the values, ideology and assumptions that can be inferred from historical records and biographies of leaders of the CN organization and the Canadian railway's saga, and (2) in its manifestations and traces in artefacts and products of mind such as management documents, reports, etc., produced during a particular time period (1976-1978).

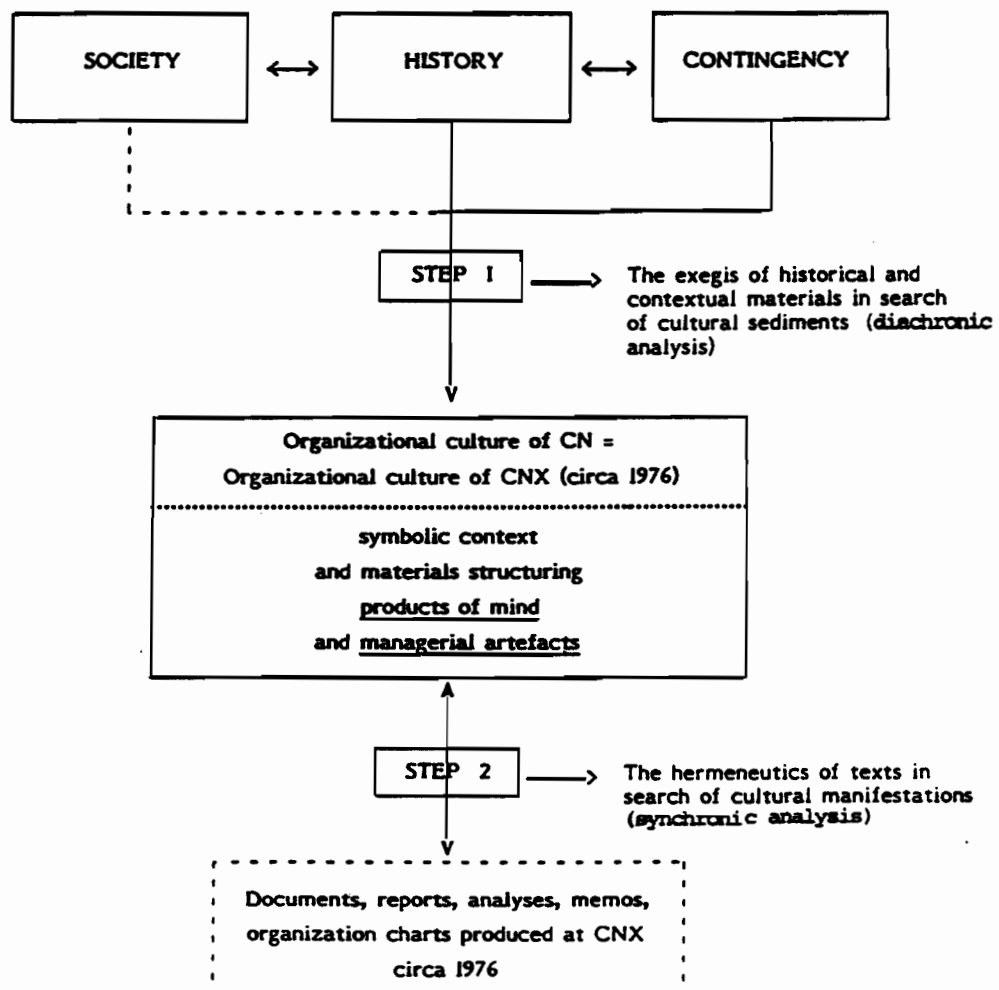
### **5.4 Steps in Assessing Culture**

Therefore, my assessment of culture proceeds in two steps, as shown in Table 5-1:

#### **5.4.1 The Diachronic Analysis of Materials Related to Antecedent Factors that Moulded CN's Culture; These Shaped the Symbolic Materials Extant in the Organization at a Particular Point in Time. In the Conceptual Model, Presented at the Outset, There Are Three such Factors: Society, History and Contingency.**

TABLE 5-1

The Assessment of Culture Through Historical  
Records and Texts





Society: The CN Corporation was (and still is, to a large extent) an English Canadian organization. That circumstance is likely to have a considerable influence on the value system of the organization, as a considerable body of cross-cultural studies in management have tended to show.<sup>2</sup>

A large organization, such as CN, at once emanation, constituent and bulwark of the Canadian cultural fabric, would be impregnated with that society's characteristic explanation of the world and orientation towards it. Although it is a domain where one must trek cautiously, one might ponder the impact on organizations of evidence that Canadian society has been marked by a distinctive search for order and security in response to a threatening and overwhelming geography and climate, by a precedence of institution over individual (Berton, 1982), by a fixating preoccupation with survival (Atwood, 1972), by a pragmatic logic of facts, by a quest for individual liberty under the aegis of, and absolute respect for, the law (Kwavnick, 1973).

However, the examination of this fascinating factor was not pursued further in this research. The focus of this thesis is on understanding and charting the role of, and changes in, the cultural and socio-structural variables in a strategic turnaround. The influence of society is then a constant throughout that affects a large successful English Canadian trucking firm's culture, as it does a Canadian railway corporation's culture. In investigating how, from 1976 onward, CNX attempted (and to what extent managed?) to transform its culture and structure from the latter to the former, the influence of society is, ipso facto, factored out. English Canadian society and culture have produced successful railway firms and successful trucking companies; therefore, there is no reason to believe that Canadian society imparts values and mores that are not conducive to the efficient operations of

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<sup>2</sup> Although the subject remains controversial and the debate between "universalists" and "particularists" in this matter continues (e.g., Lammers and Hickson, 1979). Incidentally, the model of culture I am proposing might help in clarifying some of the murky issues raised in that literature.

a large trucking firm. The problems and issues of transforming CNX from a "railway-oriented culture" to a "trucking culture", which from my preliminary analysis of documents appeared to be "CNX's goal culture", are not to be found at that level, except to the extent that society has influenced the particular history and contingency of CN.

**History:** An organization's genesis, historical transformation, successive leadership, past tribulations and strategic successes, tend to produce a cumulative stock of symbolic materials, an emerging world view and ethos, that permeate the life and functioning of the organization.

From the point of view of any particular actor, these symbolic materials are largely given and in use when he joins the corporation, are integrated in his mental construction of that which is the organization, and changed by additions, alterations and deletions of an incremental nature, to which he may or may not have contributed. These sediments weigh, sometimes positively, sometimes not, on the organization's functioning through their structuring of minds, their definition of "reality" and their demarcation of the conceivable.

A careful, in-depth, study of historical documents, biographies, annual reports, stories, etc. revealed relevant statements from which could be inferred values, myths and assumptions propounded, reiterated, acted upon in the course of the organization's history. In the case of CN, the written and published materials are rich and abundant; they even include the detailed journal of a retired top manager over the entire span of his career at CN and an extensive "value profile" of its top management in 1980.

Contingency: No organization is an island; it is set in a nexus of contingent influences arising from the particular economics, technology regulations and political history of its industry, etc. These structural and dynamic characteristics bear heavily on the socio-structural and cultural systems of the organization. In some cases, these contingent factors assume prime importance to the extent that an individual can move from one organization to another in an industry with minimal disorientation and loss of bearing.

It used to be the case with the Canadian chartered banks that an employee could move from one to the other with considerable ease. The railway companies have also been influenced in a similar way by their common heritage, their specific technology and their peculiar regulatory context. When Via Rail was formed out of the passenger services of Canadian National and Canadian Pacific, this relative communality in values, outlook, standard operating procedures and, even, management lexicon and technical jargon, made the meshing relatively easy, at least from a "cultural point of view"!

As of 1976-78, the dominant contingent factors of CN were still those of a railway company, although it had become diversified in some other areas. I examined how these contingent factors have imparted to CN (and thus CNX) characteristics modes of thinking and operating that have been integrated in the cultural system of the organization.

From the examination of these historical and contingent factors, I provide my interpretation of the cultural system, extant at CN around 1976-78.

Fundamental values in any organization will pertain to dimensions such as the following:

- the role and purpose of the organization
- the degree of control over its environments
- its market-customer-production orientation
- the definition of achievement and the canons of performance

- the nature and source of authority
- the responsibility of organization to individuals and vice versa
- the character of interpersonal relationships

By virtue of their almost total integration at the time, CN's culture may be considered as the operating culture at CN Express at the time the latter achieved autonomous status.

#### **5.4.2 The Interpretation of Management Texts Produced at CNX Circa 1976-78, in Search of Manifestations of Culture**

The cultural characteristics evinced from diachronic materials at the preceding stage may be viewed as hypotheses, conjectures or inferences about the values and fundamental, taken-for-granted assumptions, in short, about the "symbolic system in use" in the organization. Next, traces and evidence of that putative culture (or of some aspects of it) were sought in management documents, in the structural, tacit assumptions of written analyses, diagnoses, recommendations and plans of action. To this effect, more than 200 documents, of various length (from 3 to 250 pages), were studied.

It should be noted that the study focused on the impact of culture on the management and professional members of the organization, on how cultural stimuli structure the cognitions of those primarily responsible for the analysis and the formulation of diagnoses, solutions, formal (ex ante) strategies, and plans of action. What I was after was their recognition and arrangement of facts, activities that are culture-impregnated, guided by a number of anticipations and assumptions.

I also proceeded through written texts and documents. This, of course, reflects the aim of recovering the situation as it was in 1976-78; as earlier mentioned, it would have been unproductive to interview people about the underlying values and assumptions operative a few years back, when the working hypothesis is that changes in these background assumptions have occurred, or at least have been promoted since.

Of course, this approach to the study of culture, by means of written materials, is also fraught to some extent, with the dangers attributed to the "ethnographic" method. In both cases, organizational research becomes a matter of interpretation and interpretation becomes "thick description". However, by focusing on texts, the issue of validity is addressed more easily. Historical documents, official documents, annual reports, strategic plans, training guides, consultants' reports, minutes of meetings with managers and other employees, policy and procedure manuals, inter-departmental letters and circulars, all represent a fixation of meaning in time and space, available to any other researcher who could, in theory at least, verify proposed interpretations.

Furthermore, this emphasis on, and commitment to, written texts as a means of inferring culture as defined herein, has a deeper, philosophical, grounding. Paul Ricoeur (1974) wrote that the usual primacy of spoken discourse over the written one may not always be warranted. Writing represents a fixation of meaning in time and space freed from the dialogical situation. Writing, as any author will attest, has a compelling, directive force that often leads to a finished product vastly different and more revealing than the intended one; but, more important, the written text, beneath its surface subterfuges and convenient camouflage, tends to reveal in a condensed, "examinable" statement, the structural assumptions of a particular time, place and actor.

### **5.5 Appraise the Cultural and Structural Dynamics of the Intended Turnaround Strategy**

At this stage, the thesis has focused on tracing the processes of formulating and implementing a turnaround strategy at CN Express in the years 1979-1982. The organization's managers had to put forward, ponder, debate various means of extricating the firm from its predicament. Decisions had to be made within a specific power structure, actions carried out in the shadowland of organizational life.

To achieve a proper understanding of this process of strategic change, three sources of information were utilized:

#### 5.5.1 Managerial Products of Mind:

I reviewed hundreds of documents, of all sorts (reports, memoranda, letters, speeches, interviews, minutes of meetings...) that contained evidence from which could be inferred the relevant cognitive constructions of management concerning strategies, during the turnaround phase. I identified and gave answers to such questions as: What were the early diagnoses and proposed solutions? How did these evolve in time? How were strategic options formulated? Were there dissidents, factions? What were the points of contention? What were the arguments? What did these arguments reflect at the structural level? Do they contain evidence of the new value orientations fostered in the organization?

#### 5.5.2 Organizational and Managerial Acts and Facts:

I carefully charted acts (concrete steps, actualized behavior) taken by the organization and its managers. I refer to acts and not to actions to avoid an epistemological confusion that often arises in this context. For hermeneutics and the interpretative social sciences generally (since Dilthey and Weber), "action" is defined by the intention of the actor; an action acquires meaning only in terms of the projected finished act as intended by the actor. Therefore, in the "verstehen" or emic study of social phenomena, the aim is to understand and interpret them from the point of view of the actor, to recover the meanings and intentions attached to his/her acts by the acting subject. Only then, can one say that he/she has studied actions. In the etic study of phenomena (or acts), the observer-scientist attaches meaning to phenomena and behavior observed, proposes his/her interpretation of them, constructed according to explicit procedures that ensure, to all extent possible, objectivity and replicability.

A simple example of the emic/etic approach to a common organizational phenomenon, for instance, personnel reduction can be instructive. To chart acts, or do an etic investigation in this context, means to document the number of people fired, the dates, the terms and conditions of their firing, the departments or services from which they were fired, without searching for the explanations or intentions of the decision-maker's acting in that way. Only when one tries to find out the intentions, the rationale, the meanings attached to these acts by the decision-maker, such as the intention to cut labor costs or the intention to punish some forms of behavior that does not conform to the organizational norms, one can say that he/she has studied actions, or did an emic inquiry at least in the sense in which these terms are used in the "interpretative" literature.

Social science studies can rarely avoid using both modes of enquiry; but their distinction is important to the clarity and coherence of the research endeavour. Chapter 11 and, in part, chapter 12, are using an etic analysis, providing a chronology and description of acts and facts, and my interpretation of the dynamic interplay of cultural and socio-structural variables and changes during the period under study. What were the power relationships at play at CNX? How were critical decisions made? Was consensus achieved? If so, how? What were the steps, chronology and prerequisites of that strategy? What steps were taken that were likely (intended or not) to influence the cultural system extant at the time? Was there an explicit or implicit "goal culture"? What changes were made to the socio-structural system? Do the set of acts during that period appear likely to have produced a new cultural system, consonant and synchronized to a new socio-structural system?

### **5.5.3 Interviews with Relevant Actors:**

At this stage, an emic analysis of the events at CNX in the years 1976-1982 was carried out. The purpose of this analysis, in addition to clarification of obscure points in documents, was to obtain from management personnel located at headquarters and in the field and who

lived through this period, their interpretation of events, the meaning of their actions (if they were party to the decision-making process), and their conscious realization of cultural and value changes at CNX.

To this effect, I interviewed 17 managers both of the old and new teams, among whom the Ex-President of CN and of CNX before the turn-around and the President of CNX who undertook this radical strategy. These interviews, as always, are laden with the risks of post-facto rationalization, lip service, limited discursive consciousness, etc. However, in my methodology, they are but one source of information; their main purpose was to assess to degree of sharing in the dominant explanation of the firm's reality, past and present, the degree of penetration of the new strategy (or "myth", would say Hedberg, 1979), the spontaneous expression of values and orientations reflecting a changed cultural system at CNX.

The interview guide for this operation, as well as the positions of the managers interviewed, are presented in the appendix to this chapter.

The methodological stance adopted for this phase generally corresponds to Mintzberg's proposed research method for the study of strategy formation (Mintzberg and Waters, 1982) and its application (Mintzberg and Waters, 1982 [a]); however, my main focus of investigation was limited to a particular and relatively short time period (1976-1982) and my preoccupation with the cultural system has led to the inclusion of some additional issues.

## 5.6 Conclusions

This chapter has presented in some details the methodological steps and sequence I followed in my study. Methodological explicitness is forever and asymptotically perfectible. For reasons explained earlier however, I feel that, I am proposing a method that is epistemologically sound, that contains internal double checking and virtual validation, and that taps all available sources of information.



APPENDIX TO CHAPTER 5INTERVIEW GUIDE

The interview should proceed first with broad, open-ended questions that let the interviewee structure his thoughts in his own fashion:

1. For how long have you worked for CN Corporation? For how long have you worked in the Express business?

If the interviewee has worked in other fields than Express within the CN Corporation, the following question was asked:

- At the time you started working in the Express business, did you perceive any differences between the new and the old working place? Were there similarities or differences in terms of ways of doing things, of managing, of control and communication, of locus of decision-making, of market/customer orientation, of time horizon for planning, of skills that are valued, of ways the organization treats the employees, the basis of task assignment?
2. What were the main causes of the large deficits at CNX in the 1976-1979 period according to you?
  3. What are the factors according to you that account for the improvement in the financial situation of CNX?
  4. What actions taken were most instrumental in correcting CNX' problems?
  5. Are there differences in your ways of managing now, in terms of the dimensions enumerated under question (1) as compared to three years ago?

INTERVIEW GUIDE (Cont'd)

6. In some of CNX documents I met the term "trucking culture". Are you familiar with this notion? How would you define it?
7. Can you say, that the characteristics just mentioned are present in the Express Division? If yes, in what ways did you arrive at this conclusions? What are the manifestations which make you hold this view?
8. What do you think that are the orientations and priorities for CNX in the next few months and years?

LIST OF MANAGERS INTERVIEWED

1. Assistant Director, Accounting and Finance. During the turnaround (1978-1982) he held the position of System Manager Planning and Control. Started working for CNR in 1949 as counterman at Hotel Jasper Park.
2. Regional Manager, CNIL-RT Southwestern Ontario. During 1979-80, he was part of the task force as Executive Assistant to the President of CNX appointed by Perron. Started working for CN in 1942, as clerk in the Express department. His last position before being appointed Assistant to the President was Regional Manager Express.
3. Director, Operations Planning. He held this position since 1979. Between 1976-79, he is Regional Manager Express. Started at CNR in 1945, as coach carpenter in the Car department.
4. Vice-President, CNX since 1980. During 1975-78, Director Corporate Planning CN Headquarters, and in 1978-80, Vice-President Operations CN Express Headquarters. Started working at CNR in 1950 as engineer in the Engineering division.
5. Director, Personnel and Labor Relations since 1980. In 1978-80, Assistant Director Employee Relations at CNX. Started working at CNR in 1952, as clerk in the Accounting department.
6. Director of Accounting and Finance. In 1980-82, Chief Accountant CNX Headquarters. Started working at CNR in 1959 as budget clerk.

LIST OF MANAGERS INTERVIEWED (continued)

7. General Manager, Operations since 1980. From 1976-79, he worked in the Marketing department at CN Corporation level. In 1979, he joined CN Express; he held the positions of Manager Intermodal Services and Manager Regional Manager Express & CNTL for St. Lawrence Region. Started at CNR in 1946 as clerk in the Transportation service.
8. System Manager, Operating and Management System. Between 1978-82, he is System Manager Trace at CNX Headquarters. Started working for CNR in 1967 as motorman in the Express department.
9. Director of Marketing since 1980. Transferred to the Express division in 1979 as Director Marketing Development. Started working for CN in 1967 in Research and Development department as an engineer with M.B.A.
10. Regional Manager Express and CNTL-RT, since 1980. Between 1978-80 he worked as Analyst, Operations, Express Lachine and Manager, Rapidex, Express Lachine. Started working for CN in 1955, in the Express department as porter.
11. Regional Manager Express & CNTL-RT, Montreal, since 1980. His last positions before being appointed Regional Manager were: Project officer (Express Headquarters), Regional Transportation and Operation (Express Lachine), Manager Terminal Operations (Express Lachine). Started working at CN in its express operations Montreal in 1955 as watchboy.

LIST OF MANAGERS INTERVIEWED (continued)

12. Ex-President, CN Express (1976-1978). Various positions held: General Superintendant Express Freight department, St. Lawrence region; Regional Manager South Shore; General Manager of Passenger services. From 1972-1976, General Manager (Air Express, Freight Express, CNTEL-RT). He joined CNR in 1946 to work in R&D.
13. Ex-Vice-President, Operations. Since 1979, assigned to CANAC Consultants. Worked in operations for the Express division since 1963. Started with CNR in 1953 in the R&D department as Engineer.
14. President, CNX (1979-1983). Appointed Acting-President in 1978 and full fledged President in January 1979. After his graduation from McGill (M.B.A.), he held various positions with: Dominion Textile, U.Q.A.M. (Professor and Vice-Dean) and General Director of CIREM, Montreal (Centre International de Recherches et d'Études en Management).
15. President, CN (1974-1982). PhD in Economics. Joined CN in 1955 as Assistant Economist in the R&D department. Between 1968-1971, he is Vice-President Planning and Finance at CN. In 1971-1972, he is Vice-President for the Great Lakes Region. In 1972, he is appointed Executive Vice-President for Finance and Administration. Presently, he is President and CEO of the Crown Life Insurance Company in Toronto.

LIST OF MANAGERS INTERVIEWED (continued)

16. Ex-System Manager, Express Marketing. Since 1980, he holds the position of Executive Assistant to the Chairman of CN. He worked in the rail business until 1975 when he moved to Express in the position of System Manager, Express Marketing. His last position before moving to Express was a pricing officer. He holds a Bachelor of Commerce degree. Started working at CNR in 1957, in the Foreign Freight department.
17. Ex-Director of Accounting and Finance, CNX (1978-80). From 1971 to 1978, he was in Headquarter's Accounting group. Started at CNR in 1966, at the Internal Audit Moncton.

**CHAPTER - 6**

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**THE STRUCTURAL CHARACTERISTICS OF  
THE CANADIAN TRUCKING INDUSTRY**

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## 6.1 Introduction

Any diagnosis and prognosis about the fundamental problems of Canadian National's express division must take into consideration the structural characteristics of the Canadian trucking industry and CNX's competitive posture in that industry. This is the exact intention of the present chapter. It provides an extensive examination of the industry structure, characteristics and economics for the "small package" and "less than truckload" (LTL) business. The examination will be carried out according to the principles of the "industrial organization paradigm" (Scherer, 1979) and of "competitive industry analysis" (Porter, 1980).

The analysis of the trucking industry is intended to provide:

- 1) Data required for a comparison between the contingency factors of CN and implicitly of CN Express until 1976 (i.e. the railway industry) and its present context (i.e. the trucking industry). It stands to reason that if, the latter is found to be different from the former and the CNX market posture fits the former, the diagnosis of the CNX problems is glaring.
- 2) The required background information to understand, partially, the strategic considerations, options and choices at CNX during the turnaround phase.

## 6.2 General Background

Emerging shortly after the First World War, the Canadian trucking industry has developed rapidly ever since. For instance, the share of total revenues of the Canadian transportation sector held by the trucking industry stood at 24% in 1976 up from 16% a decade earlier. Table 6.1 shows that this growth has mainly occurred at the expense of the railway sector.



**TABLE 6.1**  
**The Distribution of Revenue Shares Among Various**  
**Transportation Activities in Canada**

Sectors	1966	1976
Air transport (merchandise and passengers)	10%	12%
Maritime transport	12%	12%
Railways transport	42%	32%
Road transport of people	14%	14%
Road transport of merchandises	16%	24%
Others	6%	6%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

Source: Statistics Canada, sundry publications.

The popularity of truck transportation is easily explained by the flexible, rapid and direct service that it provides to shippers and consignees. Trucks are not limited in their activities by physical constraints such as availability of a track system and of a specialized railway station. The only physical constraints on road transportation are the maximum load a truck can carry and the speed at which it can travel. Historically, truckers have been particularly successful in taking away from the railways the transportation of high value manufactured goods, even though truckers' rates were higher. This type of traffic is more sensitive to service characteristics offered by truckers and thus shippers will often be willing to pay higher rates<sup>1</sup> for the services of high-quality truckers. Although rail unit costs are generally below trucking costs for long-distance movements in carload quantities, the railways' practice of setting value-of-service

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<sup>1</sup> Truck unit costs are generally lower than railway costs for local movements and short intercity hauls of up to 200 miles.

rail rates<sup>2</sup> in areas where intra and intermodal competition was considered weak, helped truckers in competing for long hauls as well and eroded the railways' market share.

Furthermore, as truckers became increasingly adept at finding full loads for back-haul, they increased their rate competitiveness with rail, even for very long hauls. Improvements in road infrastructure and technology have also contributed mightily to the growth of intermodal (rail-truck) competition.

For instance, the improvement of Canadian highways during the period 1955-1970, the authorization to use larger and heavier trucks and to travel at higher speeds and technical advances in truck equipment and power units, have substantially lowered ton-mile costs in relation to railway rates. These trends have lowered truck rates and extended both the distance and range of commodities for which "road" is competitive to "rail".

Range and quality of service are significant factors in the competition between rail and road. Superior service may mean faster speed of delivery, off-rail delivery, shipment pick-up and delivery at consignee, prevention of loss and damage during transit or in terminals, and more reliable on-time deliveries.

Over short-hauls, the competition is usually price-related, even though the quality of service is still a consideration. For long hauls, however, truckers most often compete on a service basis whenever that advantage of trucking is significant for the shipper. Truckers always try to offer the level and type of services desired by shippers at rates that are competitive, given the service provided.

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<sup>2</sup> It refers to the practice of setting high rates, (above railway variable costs or even above their total average costs) for traffic regarded as having inelastic (or low elasticity of) demand, and low rates, at times as low as their short-run marginal costs, on traffic believed to exhibit a highly elastic demand for transport.

### 6.3 The Functioning, the Structure and the Competitive Conditions of the Canadian Trucking Industry in 1978

The Canadian trucking industry had gross revenues of \$4 billion in 1978. If the "private transportation sector", that is, those firms outside the transportation sector which carry their own goods with their own fleet, were included, then, the trucking industry served a \$10 billion-a-year market in 1978. But, this industry, when examined on a national scale, appears very fragmented. On high volume routes and where controls on entry do not severely restrict the number of competing firms, competition is fierce. As the only capital requirement for operation comes from the purchase or rental of truck equipment, which can be purchased in small units and has a relatively short service life, barriers to entry are relatively low. For these same reasons, costs of competing firms are almost all variable with output, which results in sharp price competition in the absence of restrictive control over entry, expansion and exit of firms. A high level of competition is facilitated by free or easy entry conditions such as obtain in Alberta and by the limited economies of scale prevalent in trucking (Purdy, 1972, p. 70-71). Under these conditions, truckers tend to be price-takers with prices generally uniform rather than discriminating, except for back-haul cargo.

The Canadian trucking industry is made up of thousands of firms which compete with the railways for both short and long hauls and for a large number of commodities. The competition among trucking firms is also generally strong in any particular geographical area, although in low traffic areas, such as the rural markets where only one or a few firms offer services, and in some provinces where entry regulations are more stringent, competition tends to be lower. (James Sloss, 1970, p. 327-366).

But these are generalizations that are too broad for such a segmented complex industry. Indeed, the trucking industry is a grouping of separate distinct subindustries, each serving separate markets under different operating conditions.

Within each subindustry, there is homogeneity as to the type of equipment used, the terms of competition, the nature of union contracts. Therefore, trucking firms engaged in hauling the same commodities and types of loads in the same markets, offer highly homogeneous services, which lead to effective price and service competition (Heaver and Nelson, 1977, p. 145). These subindustries will be identified and examined in turn in what follows.

### 6.3.1 The Trucking Subindustries

On the basis of their "specific mode of functioning" and the "type of goods transported", the following sequential groupings of trucking firms emerge:

- public and private carriers;
- common and contract carriers;
- general and specialized freight carriers;
- couriers, small parcel carriers, LTL (less than truckload) and TL (truckload) carriers.

Figure 6.1 shows how revenues were shared among these various subdivisions in 1978.

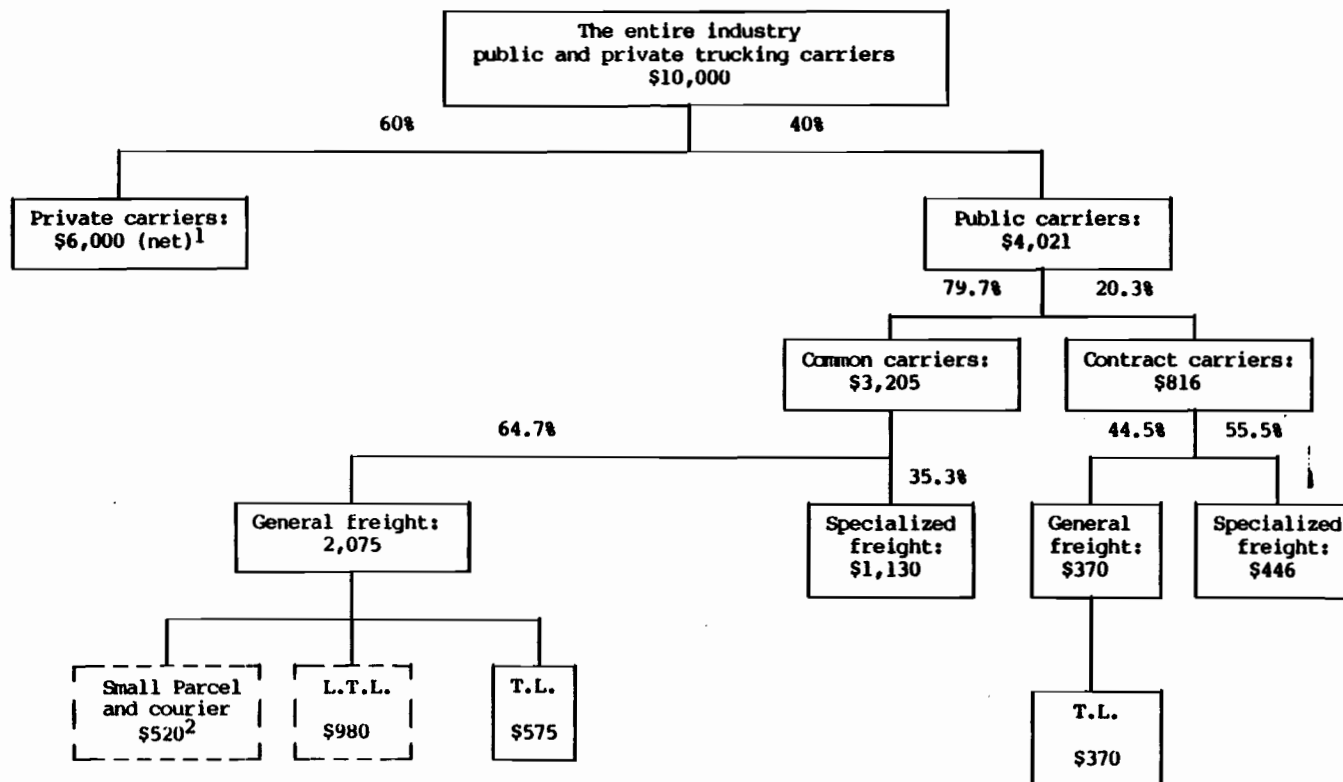
#### Public and Private Carriers

The industry is first divided into private and public carriers. The private carriers, as mentioned earlier, are those firms which, though operating in a different industry, nevertheless carry their own goods to their production units or markets. These usually do not offer transportation services to other firms.

The public carriers are those trucking companies, which offer transportation services to firms and individuals. In 1978, over 13,000 public carrier firms handled 40% of the total tonnage transported by trucks in Canada. This subindustry contains a large number of small and medium-sized firms operating in its midst. Table 6.2 provides the number of public carriers in 1978, for which annual gross revenues were in excess of \$100,000.

**FIGURE 6.1**

**The 1978 Distribution of Revenues Among Truck Carriers According to  
their Mode of Operation and the Type of Goods Transported**  
(in \$ Millions)



Source: Statistics Canada, "The Public Trucking Industry", Publication #53-222, 1978.

<sup>1</sup> Estimation of the market value of the private trucking industry.

<sup>2</sup> Excluding the revenues of the Canadian Post in this sector (\$280 million in 1978).

**TABLE 6.2**  
**Number of Canadian Firms and Total Revenues**  
**by Revenue Categories in 1978**  
**(Public Carriers Only)**

Category	Annual revenues \$1978		No. firms	Total revenues (in million \$ 1978)
	Minimum	Maximum		
3	100,000	500,000	2,660	\$ 677
2	500,000	2,000,000	657	742
1	2,000,000	—	272	2,602
TOTAL			3,589	\$ 4,021

Source: Statistics Canada 53-222, The Public Trucking Business, 1978, p. 24.

As shown in Figure 6.1, the public carrier sector is further divided into common carriers and contract carriers.

The distinction is fundamental as it refers to very different modes of operations;

Common carriers represent 79.7% of total revenues of all Canadian public carriers, offer a regular service between two or several geographical points and earn their revenues from a large number of different clients. Frequently, their freight is less than a truck load, carried from various shippers to various consignees.

Contract carriers, who represent the balance (i.e. 20.3% of the revenues of public carriers) generally operate within a given area with no fixed timetables and no regular itineraries. They function on the basis of a fixed contract involving a full truck load to be transported from one shipper to a unique consignee.

An important characteristic of the common carriers, as compared to contract carriers, is their operating a more or less extended terminal network, which constitutes the nervous system of their entire operation. Indeed, a majority of these firms have sales and administrative teams based in each terminal.

The common carriers, the group that is of prime interest to us in this case, is further divided into general freight and specialized freight.

General freight refers to the transportation of any goods not shipped in bulk. General freight carriers generated in 1978 total revenues of around \$2.5 billion representing more than 60% the total revenues made by public carriers. General freight falls in three main categories:

- The small parcel and courier (\$520 million)
- LTL (less-than-truckload) (\$980 million) for almost 50% of total revenues and
- TL (truckload) (\$575 million)

As CNX belongs to this subindustry labeled General Freight - Common Carriers, the rest of this section will focus on that group.

The specialized carriers have developed around certain industries which demanded specialized vehicles for the transportation of their output, e.g. special trucks for the transportation of fluids.

### 6.3.2 General considerations on the General Freight, - Common Carriers Sector

Table 6.3 provides relevant financial data on the general freight carriers for the years 1976 to 1978 that are generally valid also for the common carriers industry.

**TABLE 6.3**

**Profit and Loss Statement and Balance Sheet for 1976-78**

**The "General Freight" Transportation Sector<sup>1</sup>**

**(in Millions of Current \$)**

	Category 1			Category 2			Category 3		
	1976	1977	1978	1976	1977	1978	1976	1977	1978
Number of firms	120	133	153	234	265	254	668	759	957
<u>Operating income<sup>2</sup></u>	1328.3	1509.4	1894.4	279.1	301.1	281.5	193.1	205.7	268.6
<u>Operating expenses</u> (in % of revenues)									
- Transport	57.1	56.1	55.3	61.6	62.2	61.4	59.3	59.3	59.5
- Maintenance	9.7	10.0	10.4	9.4	9.4	10.2	10.0	9.9	9.8
- Terminal	15.0	14.3	14.1	4.7	4.4	4.8	3.1	3.5	3.5
- Administration	14.1	16.0	17.5	20.1	19.3	19.5	23.4	22.7	21.7
<b>TOTAL (operating ratio)</b>	96.0	96.4	97.3	95.7	95.3	95.8	95.9	95.4	94.4
<u>Net operating income</u>	53.5	55.4	51.3	11.9	14.3	11.7	7.9	9.5	15.0
- Total of assets	821.6	881.7	1103.4	143.9	148.9	143.2	110.5	110.6	141.4
- Total of liabilities	580.5	602.4	772.0	95.8	98.8	100.0	75.3	77.4	101.8
- Total of equity	241.1	279.3	331.4	48.1	50.1	43.2	35.2	33.2	39.6
<u>Number of employees</u>	39,057	40,232	48,282	8,957	8,317	7,840	7,186	7,224	8,400
<u>Operating equipment</u> (in thousands)	56.4	54.3	61.8	13.7	13.3	12.0	9.3	9.2	10.7

Category 3: Annual revenues in 1978\$ between \$100 M and \$500 M.

Category 2: Annual revenues in 1978\$ between \$500 M and \$2 M.

Category 1: Annual revenues in 1978\$ over \$2 millions.

<sup>1</sup> Common and contract carriers.

<sup>2</sup> For each category, incomes result from intercity traffic in the following proportions: (Category 1: 92%;

Category 2: 73%; Category 3: 66%).

Source: The Canadian Statistique, op. cit., pp. 38.



In 1978, there were more than 1,300 firms in this sector with annual revenues of over 100,000\$. The 153 firms of category-1 accounted for more than 91% of total revenues although none held more than 5 or 6% of that market (as in the case of Canadian Pacific Express and Canadian National Express). However, these figures may underestimate the level of concentration in the industry as very few firms compete directly with each other on a national basis. Regulations frequently limit their activities to a given area or to particular routes. As a consequence, a large majority of the trucking firms are regional carriers with an important share of total revenues at that level.

For instance in Quebec, firms like Brazeau Transport in Abitibi, Hamel Transport in Saguenay/Lac St-Jean or Cartier Transport on the North Coast hold a large share of the revenues resulting from the transportation activity between these regions and a number of large centers such as Montreal and Quebec. These firms, solidly implanted in their respective regions, search intensively for shipments from these main centers and, in order to generate back-haul traffic, are likely to offer lower tariffs than the national carriers serving the same areas.

As may be observed, the number of firms handling general freight (common and contract carriers) has increased for each category (i.e. by 27.5% for category 1, 8.5% for category 2, and 43% for category 3) in the period 1976-1978.

The operating ratio<sup>3</sup> shows a slight increase from 96% in 1976 to 97.3% in 1978 for category 1 firms, a constant ratio for category-2 firms for the same period and a slight decrease from 95.9% in 1976 to 94.4% in 1978 for category-3 firms.

The dollar volume of business in the "general freight" business varies according to inflation and general economic conditions. However, the long-run real growth of volume has been estimated at 3% annually.

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<sup>3</sup> Operating ratio is the sum of expenses as a percentage of revenues.

As earlier stated, within the general, common carriers freight sector, there are three main types of business:

- the small parcel and courier business;
- the LTL business;
- the TL business.

These will be described in the following sections.

#### **The small parcel and courier business**

In 1978, the "small parcel and courier" business represented \$520 million in revenues for the various firms operating in this sector, with a substantial growth rate estimated at 6% for the coming years. The main features of these two different businesses are summarized in what follows:

**The courier business.** In the 1960's, this sector, traditionally dominated by the Canadian Post Office, has seen the emergence of private, specialized firms.

Following the development of this market by some American companies such as Purolator and Banker's Dispatch (BDC), a large number of small firms have established themselves in this market. They are first and foremost interested in the "office" market. Different from the LTL freight firms, which carry goods, the couriers carry information. The rapid mushrooming of these private firms may be explained in part by the deficient service provided by the Canadian Post, frequently disturbed by labour strife, and by the ability of focused, specialized firms to offer a better cost/performance service to selected customers.

Geographically, these firms operate in the high-volume corridors, delivering "information" from source to destination, within 24 hours. Generally, these specialists collect shipments once or twice per day, and in the case of intra-city movement, deliver it directly to the

addresses. For an inter-city shipment, however, they use a terminal system, a simpler version of those used in the LTL business. Their tariff may consist of a weekly minimum charge for a daily collect service, to which a supplementary amount, varying with weight and distance, is added for each shipment.

It is estimated that the prices of courier firms are 3 to 5 times superior to those of the Post, but the delivery between main centers is made within 24 hours and within hours for intra-city shipments. The competition in this sector is sharp. According to industry estimates, there are probably 10,000 courier companies in Canada, with diverse services and capabilities. There are but a few firms operating at national and even international level (Purolator, BDC, Loomis), and thousands of small firms functioning on a local or regional basis.

Recently, due to increasing competition and substitute products such as electronic transmission of facsimiles, the courier industry has experienced slower growth and decreased profits. In order to offset this trend, larger courier firms are moving into the small parcel business. This of course, implies considerable investments in larger and more efficient P&D vehicles, new terminals and up-to-date material handling systems.

The small parcel sector consists of shipments of goods weighing less than 50 lbs. In this market likewise, the postal service is threatened by the emergence of specialists. United Parcel Services (UPS) has shown the way by reaping tremendous growth and profitability from its direct competition with the U.S. Postal system. Their strategy was simply to focus on high volume shippers and high density routes so as to offer these shippers better service at lower prices. UPS has attempted, so far unsuccessfully, to expand into Canada. However, specialized firms, CP's CANPAR and CNX's Rapidex services are responding to the same dynamics. The courier and small parcel market may be viewed as composed of four separate and distinct market segments (Table 6.4) with overlapping boundaries and repeated incursions by firms in adjoining territories.

**TABLE 6.4**  
Small Package and Courier Market Segments  
and Transportation Services

Market	Weight Range	Type of carriers
Mail	0 to 1 kg.	Post Office
Priority documents for direct delivery intra-city and overnight for inter-city	Up to 1 kg (2.2 lbs)	Post Office, Courier services, Bus Parcel Express (BPX), Air Express specialists (Federal, Emery, Couriair, Airvelop, etc.)
Priority small parcels or packages including documents	Up to 50-70 lbs per package, one package per shipment (average weight 9-12 lbs)	Post Office, Courier Services, BPX, Air Express specialists
Small parcels or packages	Up to 50-70 lbs per package and up to 100-300 lbs per shipment	Post Office, small parcel divisions of for-hire-trucking firms, rail express (CNX, CPX, CANPAR), Air Express, common carriers (multi service trucking firms) (UPS in the US and soon possibly in Canada)

Source: Khan, Ata M. "Small Shipment Transportation" Working Paper, Ottawa, Carleton University, May 1982, p. 8.

However, profitable operations in each of these distinct market segments tend to require different and custom-designed operating systems. In 1978, the small parcel and courier market revenues were divided as shown in Table 6.5.

**TABLE 6.5**  
**Revenue Distribution in 1978**  
**for the Canadian Small Parcel and Courier Market**

Firms	% of revenues	Average weight of shipments (pound/parcel)
The Canadian Post	38	n.d.
B.D.C.	7	4.0
Purolator	5	3.2
CN Express (Rapidex)	4	22.0
CP Express*	3	22.0
Mowat	3	22.0
BPX	2	20.0
500 other enterprises	38	n.d.

\* This market share covers the CANPAR revenues, a small parcel division founded in 1976. It is estimated that the average weight of CANPAR parcels is 8.2 lbs/parcel.

Source: CN Express management documents.

Air Express is a fast growing market segment of the general freight industry. The courier and small parcel firms offer such services to compete with specialists such as Federal and Emery. They handle the ground part of the transaction (collection, delivery, terminal operations) and sub-contract the air transportation to airlines.

The airway freight has generated revenues of about \$300 million in 1978 and was estimated to grow at a rate of around 8% annually.

The Canadian Post still holds the largest market share in this sector, but it risks retaining only the large number of small volume shippers that are unattractive for specialists in the courier, small parcel and even air freight business.

In 1978, the distribution of market shares was as follows (Table 6.6):

**TABLE 6.6**  
**Distribution of Revenues in 1978**  
**The Canadian Air Freight Market**

Firms	% of revenues
The Canadian Post	35
Air Canada (Airvelop/Couriair) <sup>1</sup>	5
Air Canada - CN (Air Express) <sup>2</sup>	6
Banker's Dispatch	10
Purolator	7
Specialists (Federal, Emery, etc.)	37

<sup>1</sup> Service offered solely by Air Canada.

<sup>2</sup> Service exploited jointly by Air Canada and CN Express until 1978. After that time, Air Canada launched the Airvelop service in the courier business and Couriair for small parcels. In 1983, Air Canada and CNX stopped operating Air Express.

Source: Estimation by CNX management.

### The LTL business

The LTL market refers to the transportation of freight less than a truck load, generally less than 20,000 lbs, carried from various shippers to various consignees. Rail express firms are particularly active in the light-shipment market while common carrier trucking firms compete most strongly for heavier shipments.

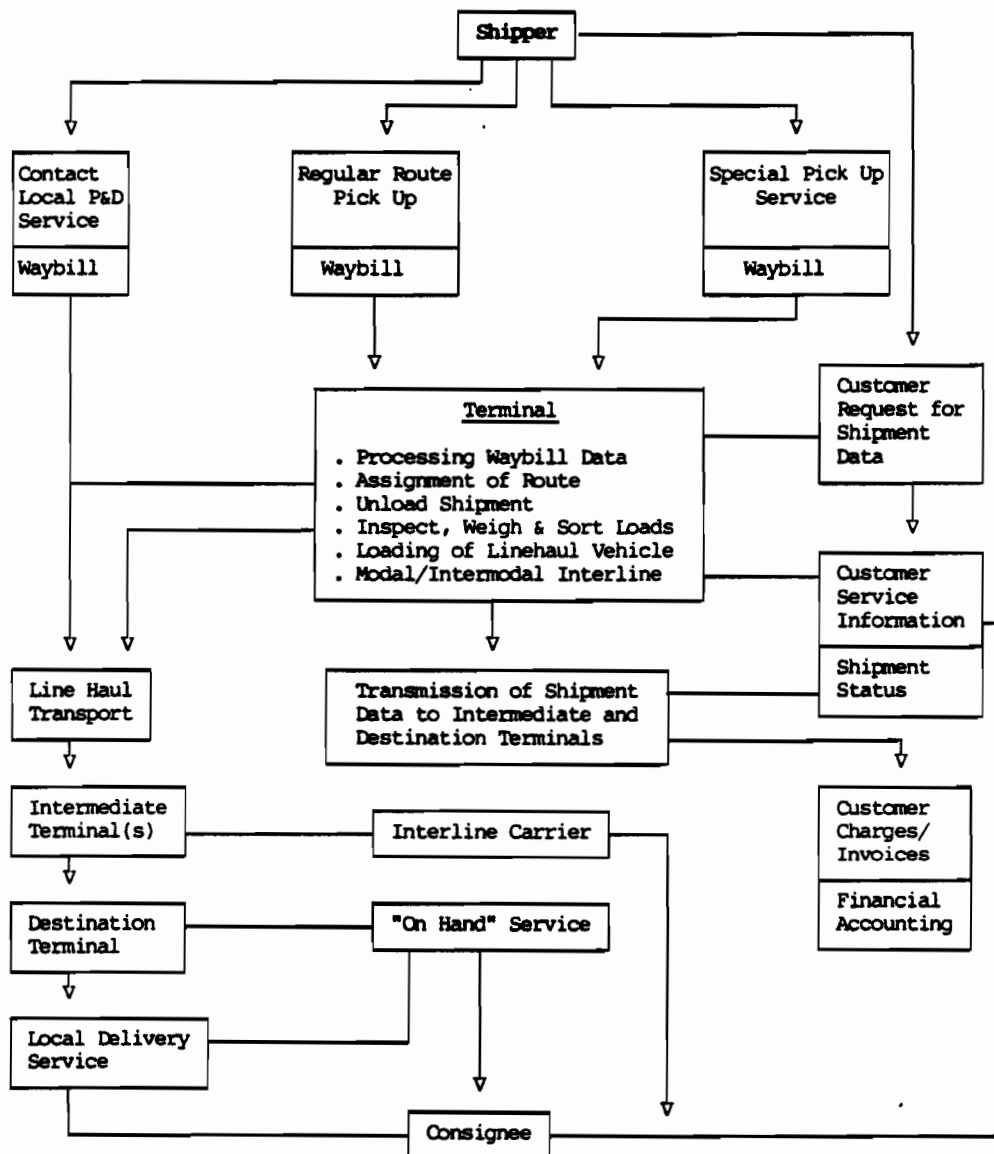
Generally, the operation of "carriers" handling LTL freight may be described as follows: (see figure 6.2)

- a) collect freight from shippers in local P&D trucks;
- b) unload freight at origin terminal and assemble into trailer-load lots of intercity movement; interlining or intermodal connections (i.e. air, rail interlines with trucking or interlining with other road carriers);
- c) intercity movement, i.e. line-haul, with the option of break bulk operations in order to combine with other freight en route;
- d) unloading freight at destination terminal and loading into local P&D trucks;
- e) delivery to consignees;
- e) processing the waybill (or other paperwork if required), transmission of shipment data, processing of customer-requested information and preparation of financial data, industry customer changes and invoices.

As a good grasp of LTL operations is critical to this study, this will be discussed at length in ensuing parts of this chapter.

### The TL business

This type of transportation known under the term "truck load transportation business" has several characteristics: a full cargo load carried from a shipper directly to unique consignee, within a

**FIGURE 6.2****The LTL Transportation System**

Source: Ata, M. Khan, "Small Shipment Transportation", May 1982, document prepared for the Research Branch of the Canadian Transportation Commission", Carleton University, Ottawa, p. 22.



given area, with no fixed timetables, nor regular itineraries. As CNX handles only a small fraction of TL, CN Trucking, another division of CN, being responsible for that type of traffic, the specifics of TL operations and markets will not be discussed further.

### 6.3.3 The Market Structure of the General Freight - Common Carriers

In addition to this broad criterion of type of shipments (i.e. courier, small, LTL and TL), the transportation market for general freight handled by common carriers may be divided and described on several other dimensions. In particular, the geographical location of shippers and consignees, and the volume characteristics (i.e. daily, weekly, occasionally) of shippers define a broad array of possible customer and shipment types. These confront any carrier who must choose some or all of these customer configurations.

For instance, shippers and consignees may be typified according to their residing in a main Canadian city, a peripheric city or town, or in off-points made up of the hundreds of small towns and villages in Canada. These geographical characteristics may be captured in a matrix that indicates a number of possible geographical configurations:

Grid I  
Location of Consignee

<u>Location of shipper</u>		Main (M)	Peripheric (P)	Off-points (O)
	Main (M)	MM	MP	MO
	Peripheric (P)	PM	PP	PO
	Off-points (O)	OM	OP	OO

In the general freight-common carrier industry, carriers generally choose or are limited by regulations, to service a specific corridor such as "main to main", e.g. Montreal-Toronto, Montreal-Edmonton, Montreal-Winnipeg, as "peripheric-main", if their location is in a peripheric point such as Drummondville to Montréal, etc. Generally, "peripheric to main", or "main to peripheric" are served by local carriers such as Hamel Transport in Saguenay/Lac St-Jean. A shipment from say, Ormstown, Qué. to a consignee in Lindsay, Ont., would be considered an "off-point" to "off-point" shipment.

Within any particular geographical configuration, for instance "main to main", the market may be further divided according to other dimensions, namely "the type of shipment" offered by a particular shipper and "the volume characteristics of shippers".

Shippers may be categorized according to the type of shipments that must be handled:

- T<sub>1</sub> = only courier type - intracity/intercity (0-20 lbs)
- T<sub>2</sub> = small parcels only (0-50 lbs)
- T<sub>3</sub> = small + LTL shipments
- T<sub>4</sub> = LTL only
- T<sub>5</sub> = LTL + TL shipments

shippers may be further typed according to the volume and frequency of shipments L<sub>1</sub> = daily, L<sub>2</sub> = at least once a week, L<sub>3</sub> = occasional shipments:

Grid II  
Type of Shipment

<u>Volume characte- ristics</u>		T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>4</sub>	T <sub>5</sub>
	L <sub>1</sub>	L <sub>1</sub> T <sub>1</sub>	L <sub>1</sub> T <sub>2</sub>	L <sub>1</sub> T <sub>3</sub>	L <sub>1</sub> T <sub>4</sub>	L <sub>1</sub> T <sub>5</sub>
	L <sub>2</sub>	L <sub>2</sub> T <sub>1</sub>	L <sub>2</sub> T <sub>2</sub>	L <sub>2</sub> T <sub>3</sub>	L <sub>2</sub> T <sub>4</sub>	L <sub>2</sub> T <sub>5</sub>
	L <sub>3</sub>	L <sub>3</sub> T <sub>1</sub>	L <sub>3</sub> T <sub>2</sub>	L <sub>3</sub> T <sub>3</sub>	L <sub>3</sub> T <sub>4</sub>	L <sub>3</sub> T <sub>5</sub>

These two grids, a simplification of an even more complex reality, provide a large number of possibilities for client selection and operational specialization. The costs and operating systems required to handle these immensely varied shipper characteristics tend to vary widely. Let's examine how some competing firms are positioned on these two grids:

CANPAR: (a CP Express subsidiary)

Grid I: MM, MP

Grid II: L<sub>1</sub>T<sub>2</sub>

i.e. specialized in the transportation of small parcels only (0-50 lbs), for shippers with daily or very frequent shipments, to be transported from main centers to main centers, or from a main center to a carefully chosen number of peripheric points.

BDC, Purolator

Grid I: MM, MP, PM

Loomis:

Grid II: L<sub>1</sub>T<sub>2</sub>, L<sub>2</sub>T<sub>1</sub>

specialized in the transportation of small parcel and courier type intracity/intercity (0-20 lbs), daily and weekly volume, from a main center to another one, and from main to peripheric and vice versa.

CNX (1978):

Grid I:

MM	MP	MO
PM	PP	PO
OM	OP	OO

Grid II:

L <sub>1</sub> T <sub>2</sub>	L <sub>1</sub> T <sub>3</sub>	L <sub>1</sub> T <sub>4</sub>
L <sub>2</sub> T <sub>2</sub>	L <sub>2</sub> T <sub>3</sub>	L <sub>2</sub> T <sub>4</sub>
L <sub>3</sub> T <sub>2</sub>	L <sub>3</sub> T <sub>3</sub>	L <sub>3</sub> T <sub>4</sub>

CNX in 1978 was servicing all possible geographical and volume configurations. As we shall see further on, CN had a historical mandatory obligation to cover the entire Canadian territory. Such a legal obligation impeded specialization on the basis of geographical characteristics of shipments or on the basis of volume characteristics of shippers.

CNX was truly a "generalist" competing in several segments of the market; the only category of shipments it did not handle was the courier type (intracity and intercity) business.

CPX: had a position similar to CNX, but with vigorous attempts at giving up off-points geographical configurations.

LTL/TL  
Trucking  
Firms:

Grid I:

MM	MP
PM	PP

Grid II:

L <sub>1</sub> T <sub>4</sub>	L <sub>1</sub> T <sub>5</sub>
L <sub>2</sub> T <sub>4</sub>	L <sub>2</sub> T <sub>5</sub>

These firms tend to focus on LTL only and LTL + TL, and on customers with considerable volume shipping from main to main centers, peripheric to main and vice versa, depending on location of firms.

#### **6.4 Structural Characteristics and Economics of the General Freight - Common Carrier Industry**

##### **6.4.1 Regulations**

The Canadian general freight-common carrier industry is closely regulated by federal and provincial authorities. The interprovincial and international traffic is under federal jurisdiction (the Canadian Transportation Commission or CTC), while intra-provincial transportation falls under provincial jurisdiction. The various federal acts or statutes that apply to truck transportation are: the Motor Vehicle Transportation Act (MVTA), the National Transportation Act (NTA), the Transport Act (TA), the Combines Investigation Acts (CIA), the Motor Vehicle Safety Act (MVSA), Canada Labour Code (CLC) and Lord's Day Act (LDA).

Powers over motor carrier entry and exit, route allocation, services and rates, are delegated by the federal government to the provin-

To set up a new trucking firm in Canada, the would be entrant must obtain a licence issued by the regulatory body of the province where he intends to operate. The applicant must show not only that he/she can offer the service, but also that existing firms are not providing the same service he intends to offer. In other words, the provincial authorities apply the test of "public convenience and necessity" before allowing a new carrier to enter the market. These regulations are intended to protect existing companies that offer a regular service against competition from occasional and contract carriers that could come in and out of the market whenever suitable to them.

Whatever their original intentions to protect the public, they resulted in protecting firms against competition, to an extent that varies with epochs and regions. There is no doubt that regulation of this industry has hindered entry of potential competitors. Several studies have shown that 85% of the new licences are granted to already existing firms in the industry.

Through a number of operating restrictions federal and provincial authorities exercise further control on this industry. These operating restrictions cover the type of freight, the routes served, origin-destination markets and intermediate service stops, types of shippers served, frequency of service and types of equipment used. Any service changes require approval by the federal and/or provincial regulatory bodies. Such powers, usually delegated to the provinces, may revert to the CTC by order of the federal cabinet, so as to exempt individual extraprovincial undertakings from provincial control.

Dormant powers of the CTC could be activated to: (a) issue a licence to an undertaking required by present or future public convenience and necessity; (b) impose conditions on motor carrier schedules, routes, terms of carriage and to specify any other conditions to the operating licence that the CTC regards as necessary in the public interest, and (c) disallow tariffs that are found to be nonconpen-

satory, against public interest and to adversely affect captive shippers. The CTC can use its dormant powers to order substitute tariffs (Khan, 1982, p. 94). Current transportation policies and regulations affecting small parcel and LTL, LCL carriers in terms of entry and exit controls, restrictions on operations, and pricing are presented in Tables 6.7 and 6.8.

#### **6.4.2 Buyer Behavior**

The major clients for common carrier transportation services are firms which want to ship their products to their markets but who do not have sufficient volume for truck load shipments or to set up their own transportation services. Transportation costs represent an important element in their general cost structure.

**Choice criteria.** Competition in all segments of the trucking industry is based on a trade-off between service and price, the nature of the trade-off depending on the characteristics of the shipment. For instance, the pharmaceutical industry requires first and foremost speed and reliability. For other industries, such as furniture and machinery several factors are important: low tariffs, on-time delivery, protection against damages during transit.

Service means reliability and dependability of the carriers. It is often assessed on the basis of past performance. Numerous studies highlight this fundamental characteristic of the trucking market. The ranking of the pertinent factors when selecting carriers are shown in table 6.9.

**Motivation to switch.** The manufacturing firms usually distribute their shipments among several carriers. The principal reasons for such practice are first to avoid disruptions in case of a carrier strike, secondly to increase their negotiating power and obtain the lowest possible tariffs.

**TABLE 6.7**  
**Current Transportation Policies and Regulations**  
**Affecting Shipments Between 1-20,000 lbs**  
**(Economic Regulation of Transportation)**

Elements of Policies and Regulations	Federal Government		Provincial Governments
	Minister of Transport and/or Cabinet	Canadian Transport Commission	
<b>I. <u>Entry &amp; Exit</u></b>			
Highway	Power to revert provincial control back to CTC for Extra-Provincial undertakings	Extra-provincial road transport regulation delegated to provinces <sup>1</sup>	Entry to and abandonment of motor carrier route or service; licence restrictions. Delegated authority (MVTa)
Air	Approval required on major ownership and control of services; policy accommodated by CTC licensing	Carrier entry to or exist from service; (licence restrictions (AA))	
Rail (including Express)		Permission to abandon stations and lines; approval of express service changes (RA)	Rail companies' road express activities require permission (MVTa)
<b>II. <u>Routes &amp; Services</u></b>			
Highway	Power to revert provincial control back to CTC	Power over Extra-provincial services delegated to provinces (MVTa); may be reverted to CTC by Cabinet (NTA) <sup>2</sup>	Delegated power over Extra-provincial services (MVTa); licences for commercial trucking
Air	Power to issue certificate in terms of equipment and international routes (according to bilateral agreements)	Power to issue licences with conditions (AA)	
Rail		Power over rail service levels and express services (RA)	
<b>III. <u>Rates</u></b>			
Highway	Same powers as for routes and services	Same powers as for routes, services (MVTa, NTA)	Delegated power over Extra-provincial services (MVTa)
Air		All tariffs to be filed; Tariffs may be suspended or changed (AA)	
Rail		Rates to be filed; rates to be compensatory to carrier; concern for captive shippers and public interest	Jurisdiction over within province railways; Federal Cabinet may declare works for public advantage

<sup>1</sup> Dormant powers could be used to issue a licence to an undertaking required by the present and future public convenience and necessity.

<sup>2</sup> Dormant powers of the CTC could impose conditions on motor carrier schedules, routes, terms of carriage considered necessary or desirable in the public interest (NTA). Also CTC has power to exempt from prohibition against Sunday operations (Lord's Day Act).

Source: Khan, op. cit., pp. 91-93.

NTA = National Transportation Act

RA = Railway Act

TA = Transport Act

MVTa = Motor Vehicle Transport Act

**TABLE 6.8****Regulation of General Freight Common Carriers**

Type of Regulation	Gov't Level	Common	Carrier Type		
			Contract	Private	Household
<u>Entry, Rates, etc.</u>					
- Proving need	P	X	X		X
- Operating permit	P	X	X		X
- Arrange interline agreement	P	X			X
- Acquisition permit	FP	X	X		X
- Subsidies	F	X	X		X
- File tariffs	P	X	X		X
- Revise published tariffs	P	X	X		X
- Insurance	P	X	X	X	X
- Labour regulations (age, etc.)	P	X	X	X	X
- Vehicle licences	P	X	X		X
<u>Operations</u>					
- Routes	FP	X	X		X
- Interline	P	X			
- LTL/TL	P	X	X		
- Dangerous goods	FP	X	X		
- Livestock	FP		X	X	
- Weight	FP	X	X	X	X
- Dimensions	P	X	X	X	X
- Load size (oversize)	FP	X	X	X	
- Fed. labour code	F	X	X		X
- Prov. labour code	P	X	X	X	X
- Safety code	FP	X	X	X	X
- Lord's Day Act	F	X	X	X	X
- Licence reciprocity	P	X	X	X	X
- Regulatory reporting	FP	X	X	X	X
- Customs	F	X	X	X	X
- Agricultural regulation	F	X	X	X	
- Health regulation	FP	X	X	X	X
- Sales and fuel tax	FP	X	X	X	X
- Municipal by-laws:					
. hours	M	X	X	X	
. weight	M	X	X	X	X
. noise	M	X	X	X	X
. pollution					
. zoning	M	X	X	X	

X = Regulation applies; F = Federal; P = Provincial; M = Municipal.  
 Source: Khan, op. cit., pp. 95-96.



**TABLE 6.9**  
Relative Importance of Choice Criteria  
While Choosing a Transportation Mode or a Carrier

Criteria	Average score	Rank
On time performance	92.4	1
Freight charges	79.8	2
Time on transit	79.1	3
Number of geographical points served	73.9	4
Frequency of service	72.1	5
Loss and degree of damage	69.2	6
Acceptance of shipments of all sizes	65.9	8
Door to door service	61.9	8
Shipment tracing	61.8	9
Promptness of claims settlement	60.8	10
Adaptation to the specific needs of the clients	55.5	11
Availability of standard equipment	50.6	12
Service for far away regions	50.2	13
Local reputation of the carrier	47.1	14
Availability of special equipment	41.0	15
Probability of price increases in the future due to higher energy costs	36.2	16
Competence of sales force	24.5	20
Impact on the environment	11.7	23

Source: Stock, J.R. and Lalonde, B.J., "Purchasing Approach to Transportation Mode Selection", Journal of Purchasing and Materials Management, Spring 1978.

As a consequence, it is rather easy to obtain a certain volume of shipments from a client on a trial basis. What is difficult is to persuade the client to allocate an important fraction of its shipments on a regular basis. A change of carrier represents an important risk for the shipper. Decisions regarding transportation modes and selection of carrier are not made lightly and often involve higher management levels.

Table 6.10 shows the relative importance of various motivation factors (on a 100-point scale) in the decision to switch from one carrier to another.

**Evaluation of performance:** carriers are continuously assessed as to their performance on critical dimensions. Table 6.11 shows the importance (on a 100-point scale) of various factors, in particular those related to a shipper's on-time reliability and secure handling of shipments.

#### **6.4.3 Tariffs**

For the three general types of general freight-common carrier services, namely couriers, small package and LTL carriers, tariffs are tailored to suit market requirements and the imperatives of profitability. Within each type and class of tariffs, there are variations depending upon the carrier or class of carriers involved (e.g. tariffs of the truckers vs. those of rail express carriers).

**Courier services** offer high speed of delivery shipments and their tariffs reflect this feature.

In general, their tariffs vary by weight and distance with minimum charges applicable. Courier firms apply a minimum charge, unless tariff is prepaid in cash or a regular account is maintained. The weekly cost of maintaining an account with BDC, for example, was \$4.00 in 1980.

**TABLE 6.10**  
Relative Importance of the Motivation Factors  
in the Decision to Change Transportation Mode or Carrier

Motivation factors	Average score	Rank
Wish to improve service to one's clients	84.4	1
Deterioration of the present service offered by the present carrier	79.8	2
Wish to reduce distribution costs	77.2	3
Bad present pick-up and delivery service	76.3	4
Clients claims	76.1	5
Wish to reduce delivery delays	72.2	6
Change in the clients' needs	64.7	7
Bad experience with the loss and damages claims	63.5	8
Expansion to new markets	53.5	9
An urgent solution to problems	48.6	10
Narrow range of service of the present carrier	48.4	11
Problems caused by a change in the present carrier's procedures	47.9	12
Development of new products which require different modes of transport	42.6	13
Change of the geographical distribution of sales	42.2	14
Change in the transport policies of the company	37.6	15
Increase of its volume of shipments which exceed the present carrier's capacity	36.1	16
Reduction of packaging costs	35.7	17
Wish to distribute the shipments among several carriers	30.5	18
Contacts with the sale people of the carrier	28.7	19

Source: Stock, J.R. et Lalonde, B.J., op. cit.

**TABLE 6.11**  
**Evaluation Criteria for Carrier Performance**

Procedures	Average score	Rank
On-time delivery	82.1	1
On-time pick-up	80.8	2
Clients' claims	72.9	3
Losses and damages	56.8	4
Shipment tracing	49.6	5
Overall distribution costs	41.7	6

Source: Stock, J.R. et Lalonde, B.J., op. cit.

Small parcels and packages may be shipped, in most parts of Canada, through a large number of carrier types with a wide variety of service and tariff characteristics. A small number of carriers (e.g. Canada Post, CANPAR, UPS Canada Ltd.) offer essentially a one-piece-per-shipment service, with each piece considered as a separate and distinct shipment. Rates are based on the Canada Post's Parcel Post rates.

CP's Canpar, provides a good example of the tariff structure of a small package specialist. Rates vary with weight and distance. A nominal weekly fee is charged for daily pick-up and credit privileges on current prepaid billing charges. This service is offered to shippers that have a large volume of shipments on specific high-density routes.

In the case of package express, such as CP's Parcel Express and CN's Rapidex, each piece moves without a waybill; no parcel can weigh more than 75 lbs. Rates vary by five lbs. intervals and by distance.

Rates for small package services reflect the faster service required by the market. Rate structures are also designed to discourage multiple drops and to attract shippers with a large volume of small shipments to be carried to many consignees.

For heavier shipments (LTL), rail express tariffs (ETA 100) are varied every 25 to 50 lbs. and by distance. Point to point rates are also available. Minimum charges per shipment apply (e.g. 75 lbs. minimum, with exceptions for 20 or more shipments per month). Minimum charges are intended to discourage very small packages. In addition to minimum weight charges, truckers' minimum density rules apply as well (e.g. a minimum of 10 lbs. per cubic foot).

#### **6.4.4 Shipment and Revenue Characteristics**

In 1979, 89% of CN's Rapidex traffic and 86% of Air Express traffic weighed less than 50 lbs. CNX's LTL traffic that weighed less than 50 lbs. accounted for about 40% of the total number of LTL shipments.

Revenue characteristics of rail express carriers can be further illustrated with CP Express's experience shown in table 6.12. For a given service type, average revenue per shipment increases with increasing shipment weight, but average revenue per unit weight (e.g. revenue per lb. or 100 lbs.) decreases. This is a direct result of a tariff structure which is designed to encourage heavier shipments, for reasons that will become obvious in the part of this chapter that examines cost characteristics of common carriers.

When compared to ETA 100 regular express Traffic, revenues per shipment as well as per 100 lbs. are lower for package Express Traffic. Shippers of small packages are thus offered an incentive to use expedited package services rather than regular express which are intended for heavier loads.

**TABLE 6.12**

**CP Express Traffic and Revenues - 1978**

Weight Category (lbs.)	Package Express			ETA 100 Regular Express		
	Average Weight/ Shipment	Average Revenue/ Shipment	Average Revenue/ 100 lb	Average Weight/ Shipment	Average Revenue/ Shipment	Average Revenue/ 100 lb
1 - 25	12.1	3.97	32.89	14.1	9.11	64.42
26 - 50	37.8	5.56	14.72	39.0	11.42	29.31
51 - 75	62.0	8.73	14.09	63.7	13.90	21.83
76 - 100	88.6	8.93	10.09	89.2	14.92	16.72
101 - 150	126.3	11.19	8.86	127.3	17.51	13.76
151 - 200	174.9	13.92	7.96	179.7	20.27	11.26
201 - 250	223.6	14.96	6.69	227.3	22.12	9.73
251 - 300	276.3	13.23	4.79	282.0	24.96	8.85
301 - 500				392.4	32.86	8.38
501 - 1,000				704.8	52.51	7.45
1,001 - 2,000				1,384.9	95.78	6.92
2,001 - 5,000				3,103.9	195.60	6.30
5,001 - 10,000				7,194.2	376.62	5.25
Over 10,000				21,425.0	636.48	2.97
AVERAGE FOR EACH SERVICE	29.8	5.2	17.47	242.4	22.49	9.28

Source: Khan, op. cit., p. 52.

#### 6.4.5 Economies of scale

A quick examination of the operating statistics in table 6.13 reveals that economies of scale in Canadian trucking industry are not considerable. For example, a comparison of the productivity per employee, for a category 1-firm (with an average of 315.6 employees) and a category 3-firm (with an average of 8.7 employees) shows that while the former is 38 times larger than the latter, the productivity per employee is only 22% higher for the larger firm (i.e. in absolute terms \$39,200 per employee for category 1 vs. \$32,000 per employee for category 3).

The main reason for this phenomenon stems from the fact that LTL shipments require extensive terminal operations; therefore terminal expenses represent a large chunk of total expenses that remains a constant or even increasing proportion of total expenses if terminal size increases beyond a certain point. The other cost elements tend to remain constant or slowly fall with increased volume. Thus, transportation (trucks, drivers, fuel), maintenance, depreciation, traffic (and sales) and licence expenses generally absorb the same proportion of revenue at all levels of volume. General and administrative expenses, because of a large component of fixed costs, tend to decrease as a proportion of total revenue as volume increases.

The profitability of a trucking operation is a direct consequence of market strategy and operational discipline. Large unfocused motor carriers tend to exhibit poorer profit performance than middle-sized or smaller carriers with well defined market niches. As shown in the table 6.13, the operating ratio (i.e. the percentage of expenses in the total amount of revenues) for category 1 firms is higher than for category 2 and 3 firms<sup>4</sup>, namely 97,3% vs. 95,8% and 94,4% respectively.

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<sup>4</sup>	<u>Categories</u>	<u>Annual Revenues</u>
	Category 3 =	\$ 100,000 - 500,000
	Category 2 =	\$ 500,000 - 2,000,000
	Category 1 =	\$ 2,000,000 -

**TABLE 6.13**  
**Operating Statistics for the Canadian Public Trucking Industry**

	Category 1	Category 2	Category 3
Average number of employees	315.6	30.9	8.7
\$Revenue per firm	\$12,382 M	\$1,108 M	\$281 M
Productivity per employee	\$39,200	\$37,200	\$32,000
Revenue/equipment	\$30,654	\$23,458	\$25,103
Operating ratio	97.3	95.8	94.4
ROI <sup>1</sup>	8.9	14.8	20.1
ROE <sup>2</sup>	19.3	26.5	38.7

1  $ROI = \frac{\text{Profits before tax}}{\text{Equity} + \text{long term debt}}$

2  $ROE = \frac{\text{Profits before tax}}{\text{Equity}}$

For comparison purposes, the ROI and ROE of various industries in 1978 were:

	ROI	ROE
Clothing	20.7	22.7
Machinery	13.5	15.7
Printing	20.6	28.2
Textiles	6.5	11.9

Source: Statistics Canada, Publication no. 63-1978, Financial Statistics of Corporations, pp. 42.

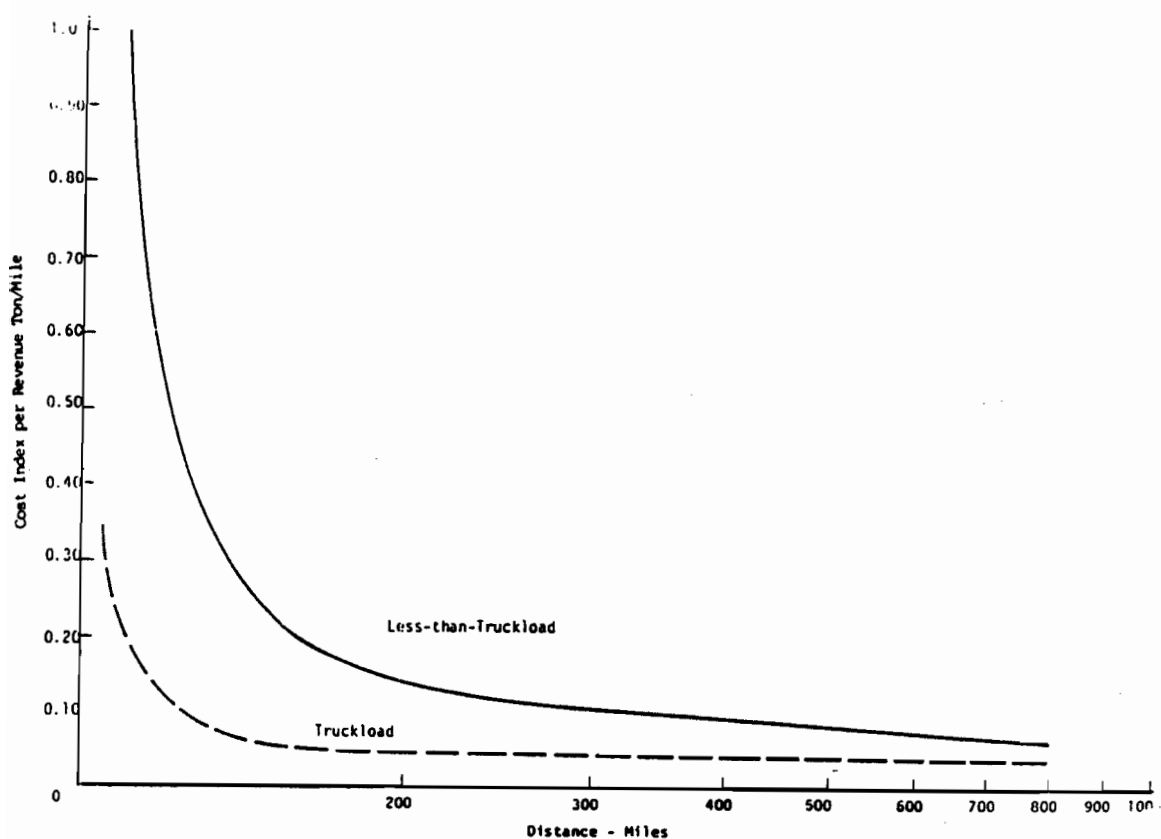


This conclusion is further supported by the return on investment data for the three categories (i.e. 8,9%, 14,8%, 20,1%). As can be observed, trucking companies operate on relatively thin profit margins. Operating ratios typically run between 94% and 97%. Relatively slight variations in costs and volume may result in substantial losses.

Although firms of different sizes do not show evidence of large economies of scale, there are however powerful operational reasons to choose well the type of traffic to handle. In general, LTL shipments that are to be moved over shorter distances cost more to handle (in terms of dollars per lb.-mile or ton-mile) than LTL shipments over longer hauls (see figure 6.3). Also, for given lengths of haul, LTL shipments cost more to move than TL shipments due to terminal operations required for LTL loads. The fixed costs of terminal and P&D operations that must be incurred for shipments of any size, result in high costs per lb for very small shipments.

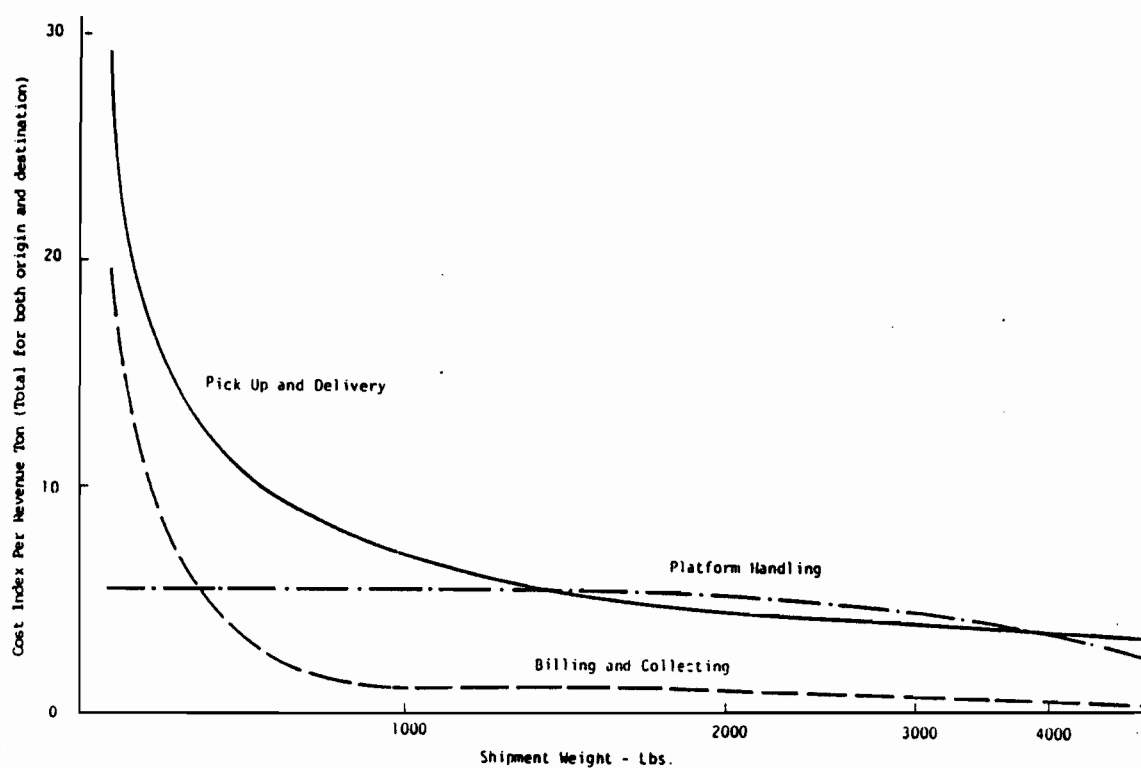
Interesting insights are obtained from a closer look at the variation of terminal costs with weight over the range 50 lbs. to 500 lbs (See figure 6.4). Of the three cost components shown, billing and collecting is normally a uniform amount for any shipment size. Of course, on a unit weight basis, this expense category declines with increasing weight. Platform (shed) handling costs increase with increasing weight of shipments, but declines slightly on a unit weight (i.e. \$/ton) basis. P&D costs are fairly constant per shipment and therefore decline when expressed on a unit weight basis.

**FIGURE 6.3**  
**Total Marginal Road Motor Carrier Costs,**  
**By Length of Haul**



Source: Ata M. Khan, "Small Shipment Transportation", May 1982, pp. 68

**FIGURE 6.4**  
**Marginal Costs (Per Revenue Ton) of Road Motor Carrier Terminal,**  
**By Shipment Weight (For Illustration Purposes Only)**



Source: Ata M. Khan, "Small Shipment Transportation", May 1982, pp. 69

#### 6.4.6 Operating Cost Characteristics for the General Freight - Common Carriers

##### P&D Fleet

Given a particular shipment, the revenue/cost relationship will improve if: (1) the terminal is in a relatively close proximity to shippers and consignees; (2) shippers and consignees are concentrated geographically; (3) the revenues generated per P&D stop are high. Briefly, the shorter the stem line and the higher the pay load, the better the financial performance. These economic realities explain why most firms do not handle or discourage "off points" pick up and delivery, particularly from occasional shippers. Their lack of interest or downright refusal to handle such business tends to channel such business to the generalists such as CNX and CPX who accepted all corners.

##### Terminal operations

Terminal operations add significantly to the cost of a LTL trucker. Efficient use of terminal facilities is considered a crucial factor in the success of a trucking business.

The conclusion of many studies which have examined the influence of terminal size suggests that small terminals are more manageable operating units and tend to yield higher productivity and reduced costs. Terminal expenses rise with increase volume and the rate of growth of these costs is highly dependent on the responsiveness of management control systems. This helps explain why truckers generally seek to set up a network of small terminals. In this respect, the implicit assumptions are that:

(a) small terminals do not result in higher cost than large terminals; and (b) the share of business a trucking company captures in any one market is highly influenced by the number of other points that company serves directly. As the number and size of terminals grow, it

becomes increasingly difficult to control costs. Successful trucking firms tend to locate autonomy and accountability at the terminal level and to set up sophisticated information systems for accounting and line-haul operations.

### Intercity movement (line hauls)

The cost of intercity movements is highly influenced by the number of break-bulk operations, the pay-load in both directions, and the length of the haul. Concerning the pay-load, it is mandatory to generate back-haul traffic. This requirement explains why in the LTL trucking industry, the terminal management is entrusted with more than simply a loading, consolidation and unloading responsibility. The terminal is generally viewed as the local extension of the company, a generator of business. Consequently, the terminal manager has substantial general management responsibilities.

These three factors result in different cost structures for different types of operations. For example, CN Express's expenses summarized in table 6.14, indicate that P&D costs alone account for 24.2% of total expenses, and are higher than line haul costs (23.1%). Other terminal-related expenses are: shed operations (17.2%), terminal overhead (9.0%) and office (billing and collecting) (10.5%). Administration costs are 14.4% of total expenses and finally, marketing and sales expenses contribute 1.6% of total expenses. Although not shown in table 6.14, it should be noted that CN Express incurred a loss of \$47.2 millions in 1979.

**TABLE 6.14**  
**CN Express Expenses - 1979**

Expense Item	% of Total Expenses
Terminal (Shed)	17.2
Terminal Overhead	9.0
P & D	24.2
Office (Billing & Collecting)	10.5
Line Haul	23.1
Administration	14.4
Marketing & Sales	1.6
<b>TOTAL</b>	<b>100.0%</b>

Source: CN Express internal documents.

## 6.5 Conclusions

Any close examination of the General Freight - Common Carriers industry indicates that the "industry" is in fact a grouping of separate and distinct sub-industries, each serving separate markets under different conditions and with different cost functions.

The differences may appear insignificant to those observing the industry from outside, but its subtle characteristics are very real and influential. So much so that it is normal practice for a general freight - common carrier which chooses to operate in more than one segment to establish separate operating divisions that have a minimum of interface with the other divisions of the company. This is a conclusion of great relevance for CNX, which as generalist operates both small parcel and LTL under the same roof.

The existence of several market segments and the need to separate operations for each segment result from the fact that the cost function of each type of carrier is different and that there are risks in attempting to cross over these natural boundaries.

The operating cost functions of a general freight LTL carrier and of a courier and small parcel specialist are graphically represented in Figure 6.5. It can be observed that specialists function with lower costs for shipments smaller than 50 lbs.

This fact becomes also apparent from an analysis of the revenue per ton received by carriers operating in different segments (Table 6.15).

From a marginal cost point of view, it is quite possible for a LTL trucker's operating system to handle a small parcel at a relatively low incremental cost. However, as soon as this end of the business grows and begins to require additional resources, the average operating cost will increase, while concurrently, the average revenue per shipment will begin to drop, and the financial performance of the trucker will deteriorate. The foregoing largely explains why LTL trucking companies systematically discourage small parcel business. This is accomplished by imposing a 100-lbs. minimum charge on all shipments and by deliberately offering a poor quality service to occasional shippers.

A second conclusion with important implications for CNX is that economies of scale are not large under unfocused conditions. Indeed, large motor carriers who accept business from any point for reasons of volume tend to exhibit poorer profit performance than middle-sized or smaller carriers with well defined market niches.

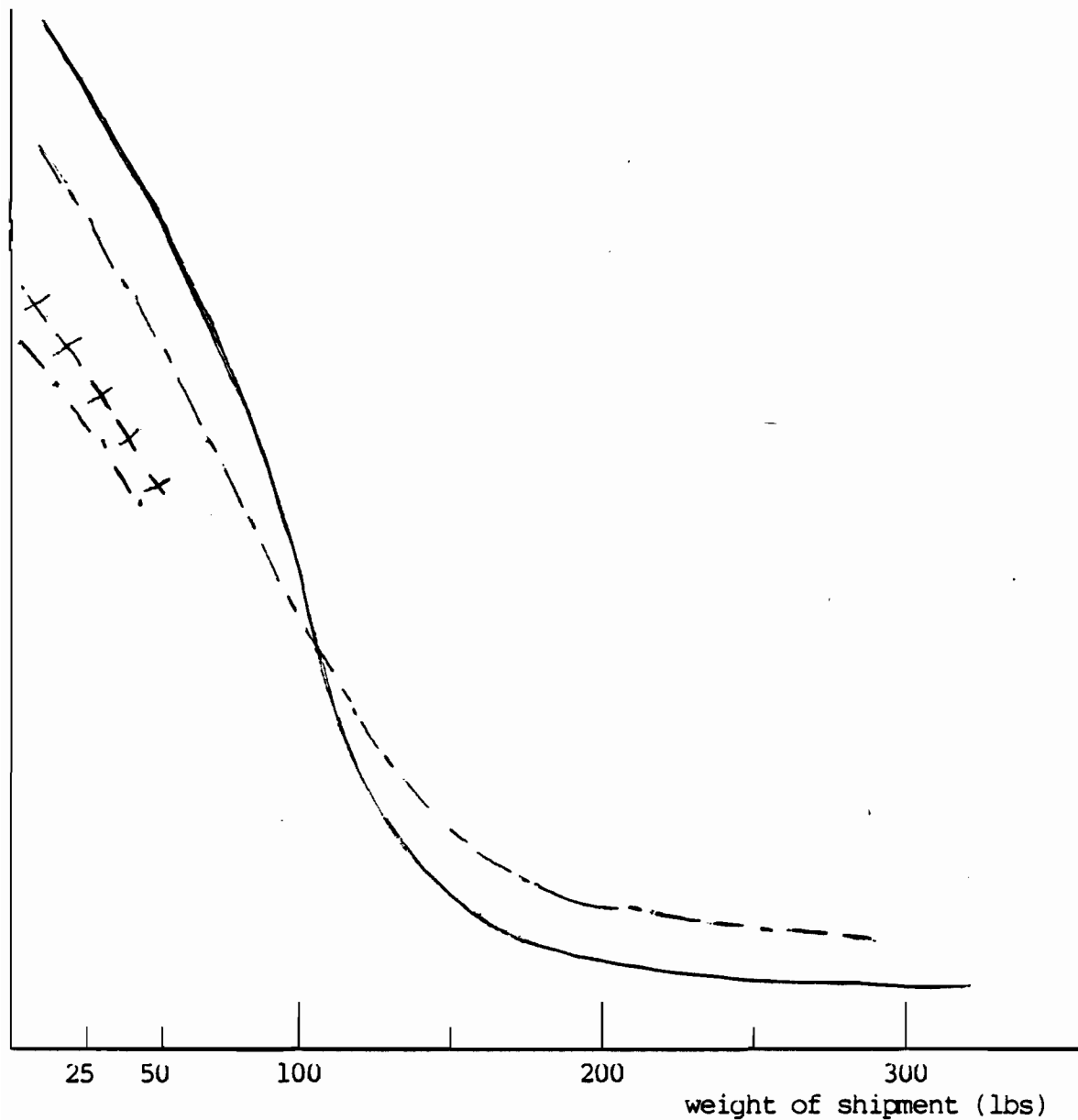
Finally, an important criterion of choice is service. Service means reliability and dependability of the carriers and is assessed on the basis of past performance.

This is an important conclusion for CNX, which offers a rather poor service compared to its competitors.

The choice of a strategic posture and operating system by CNX must reflect at least the above conclusions, if CNX were to redress its financial situation and survive in the general freight - common carriers industry.

**FIGURE 6.5**  
The Cost Functions of a General Freight LTL Carrier  
and of a Small Parcel or Courier Specialist

Revenues and  
costs (\$/lb)



The cost function of a LTL carrier: \_\_\_\_\_

Revenues of a LTL carrier: \_\_\_\_\_

The cost function of a small parcel  
carrier or carrier specialist: -.-.-.-.

Source: CN Express internal documents, 1980.



**TABLE 6.15**  
**Consistent Group of U.S.A. General Freight Carriers**  
**and United Parcel Service**  
**Revenue per Ton**

	1973	1974	1975	1976
No. of carriers	477	477	477	477
Total Revenue per ton	\$35,98	\$46,79	\$51,99	\$54,38
TL	24,03	27,15	28,46	29,56
LTL	80,69	81,13	89,58	98,63
U.P.S. System	290,62	300,89	310,73	351,41

Source: Edward P. Montz "Cost/Benefit Analysis: Effective Measurement of Motor Carrier Operations: The Impact of Institutional and Market Structures". Transportation Journal Summer, 1977, pp. 26.

**CHAPTER - 7**

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**THE DIACHRONIC ASSESSMENT OF CULTURAL AND  
SOCIO-STRUCTURAL CHARACTERISTICS OF CN TO 1976:  
CN'S HISTORICAL TRANSFORMATIONS AND LEADERSHIP FACTORS**

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## 7.1 Introduction

This chapter provides a number of fundamental and instrumental assumptions propounded, reiterated and acted upon in the course of the functioning of the Canadian National, from its genesis until 1976. These assumptions are inferred from a diachronic, indepth study of the CN history. Historical documents, biographies, diaries, annual reports were used to this effect.

The first part of the chapter is about the critical events that marked CN's birth and transformations and the durable consequences of these events on CN's culture and functioning. The second part of the chapter shall be devoted to the successive leaders who have run the company and left imprints of varying depth and breadth upon it.

## 7.2 Genesis and Historical Transformations of CN

The Canadian National Railways was incorporated on June, the 6<sup>th</sup>, 1919 having operated under the name of CNR since December 1918. The CNR was formed through the acquisition by the Canadian Government of a large number of railways (around 220), the majority of which had operated independently and unprofitably, before being integrated into the largest railway company in North America.<sup>1</sup>

Among the railways so amalgamated were the first railways in Canada, the Champlain and St. Lawrence, chartered in 1832 and the Grand Trunk, chartered in 1852. The latter company had previously added to its original line, from Chicago through Ontario and Quebec to Portland Maine, other railways: the Great Western, the first Canadian system

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<sup>1</sup> In 1925, CNR had 21,936 track miles operated, 98,382 employees, \$249.4 million in revenues and 9.8 million losses. (Stevenson, 1981 pp. 324, 325). By comparison in 1982, for the same indicators, the situation was the following: 23,366 track miles, 67,113 employees, \$961.5 million in revenues and losses of \$223 million. It must be noted however that, this is the first year of losses after five consecutive profitable years. (CN Annual Report, 1982).

covering Southern Ontario, the Northern and Northwestern Railways operating from Toronto and Hamilton to Lake Huron; the Midland Railway, a merger of a group of railways north of Lake Ontario; the Canada Atlantic Railway which ran from Vermont up the Ottawa Valley and Georgian Bay; and the Central Vermont Railway which operated in Vermont and as far south as New London, Connecticut.

### 7.2.1 Specific Circumstances of the CNR's Genesis

There are several significant aspects of CNR's genesis, which have made a lasting impression on its functioning and performance.

First, the CNR system was formed as an amalgamation of a large number of nearly bankrupt railway companies but which did not actually go bankrupt and therefore never obtained the release of financial obligations that would have resulted had they done so. Second, CNR was set up without being given a clear mandate from the Government of Canada. Third, a good part of the physical assets of the constituent railway companies was redundant, over-extended in relation to population density and traffic potential. Fourth, CNR inherited a precedent and practice of government interference and patronage that had characterized relations between the Canadian Government and the first state-owned railway company "the Intercolonial", now merged into the CNR. Fifth, the genesis and development of railways in Canada are closely interwoven with the economic and commercial history of the country; railways were so critical to the survival of many regions and economic sectors that it led to particular expectations as to CNR's role; the state-owned railway, and to a lesser extent, all railways came to be seen as providing a public good, the dispensation of which was a matter of social policy not to be governed by strictly economic considerations. These five interrelated factors will now be examined briefly and in turn.

The impact of the first factor, (i.e., the huge debt of CNR resulting from the amalgamation of more than 200 bankrupt railway companies) on CNR's future operations and mentality is considerable.

CNR was formed and had to operate to a large extent on the basis of freight and passenger rate structures determined in the United States, that were aimed at providing a modest return on the apparent capital. But the capital of United States railways, and especially their debt capital, had been written down through the successive bankruptcies of the great majority of American railroads (Thomson, 1938). However, CNR which took over all the liabilities of its constituent companies, was from the onset burdened with an astronomical debt that voided any notion of commercial viability for the new organization.

"In 1922, CNR operating expenses (\$231,172,303) were within 1.3% of its gross earnings (\$234,059,025) leaving virtually nothing for the service of \$1,311,448,713 of inherited debt. In order to meet the annual charges on this sum, CNR would have to increase its earnings by 24.8% with no increase in operating expenses, an impossible undertaking". (Stevens, 1973, p.314).

A second circumstance of CNR's birth is the absence of any deliberate or even implicit transportation policy or mandate for the newly formed crown corporation.

As the events of that period bear witness, the Government of Canada was practically lured into financial support to a number of private rail companies, which later became insolvent.

"With the collapse of these over-stimulated private enterprises, the government, either as guarantors or as representing residuary beneficiaries<sup>2</sup> had to choose, often on extremely sudden notice, between closing the railways down; putting them into bankruptcy and operating them by a receiver; or taking them over and operating them at public expense in the hope of soon discovering an adequate rail policy". (Thomson, 1938, p.321).

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<sup>2</sup> The Canadian Government accepted to guarantee bonds to the Canadian Northern Interests and entered into a cooperation arrangement with the Grand Trunk Pacific, through which the government was to build and own the Eastern division of the National Transcontinental Railway.

The government, motivated by a complex set of influences too intricate to detail here, chose the last alternative. The result was the birth of a heavily indebted organization, that had no clear purpose nor mission, that was forced to interpret confusing signals issued by a weak Federal Government and to navigate the reefs of federal-provincial conflicts, permanently pressured by various provincial governments and public demands for economic and social concessions to their regions.

Was CNR to serve as an indirect means to achieve economic and social objectives notably the economic development of regions, the redistribution of wealth among provinces, Canadian unity and urbanization? These goals were implicit in many government decisions concerning transportation, such as the maintenance of uneconomical branch lines and passenger traffic in the public interest, the imposition of statutory rates<sup>3</sup>, the Maritime Freight Act<sup>4</sup>, the freezing of rates in 1973-74. Or was its role to strive to earn a normal return on investment and therefore be guided by the same commercial considerations as any private corporation, as recommended by the numerous Royal Commissions on transportation which investigated the railway's financial troubles at regular intervals?

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<sup>3</sup> These concessions concerning railway rates which were initiated very early (1897) on the rates for grain and related products, were first introduced into the Railway Act in 1922 to resolve a dispute about the application and implication of the Crow's Nest Pass Agreement of 1897 between CP and the Federal government. According to this agreement, CP received a subsidy amounting to 3,4\$ million for building a line through Crow's Nest Pass in the Rocky Mountains. In return, the railway agreed to reduce existing rates on grain and flour by three cents per hundred pounds and to maintain that rate "hereafter". Subsequent controversy arose as to the applicability of that agreement to lines not in existence in 1897. The 1925 amendment to the Railway Act with respect to the Crow's Nest Pass Rates states that it covers "all such traffic moving from all points on all lines of railways west of Fort William, to Fort William or Port Arthur over all lines now or hereafter constructed by any company subject to the jurisdiction of Parliament" (R.S. 1952, Railway Act Sec. 328 (6)). The financial impact of the statutory rates on the railways has been studied by the Snavely Commission in 1975-76. In May 1983, the Canadian Government introduced a legislation to overhaul the Crow's Nest Pass freight rates. The Bill faced stiff opposition as it calls for the doubling of the present rate of 4,89\$ a ton by 1985 and its quintupling by 1991.

It was not until 1967 that a clear National Transportation Policy was adopted, and CNR was sure of its mandate or of its intended role. This situation has strongly impacted on CNR's definition and range of behavior for several decades, as we shall see further on in this document.

A third circumstance of CNR's genesis is the over-extended nature of the rail system it inherited. The period of railway optimism in the 19<sup>th</sup> century, when the railways were regarded as the main instrument for economic development and prosperity, led to an overbuilding of railways in Canada. The result was a very high ratio of railway mileage relative to Canadian population. It was reckoned that a Canadian railway needed a population of five hundred per mile to sustain it (or a ratio of 2.0 miles per 1000 of population), (Thomson 1938, p. 15). In Saskatchewan in 1933, for example, there were only one hundred and nine people to the mile. Table 7-1 on the mileage-to-population ratio for several countries, shows that Canada was "grossly overbuilt in railways".

**TABLE 7-1**  
**Ratios of Rail Mileage to Population**  
**for Selected Countries and Regions**

Country, State or Province	Steam Railway Road Mileage per 1,000 of Population (Circa 1932)
Canada as a whole	4.03
Province of Saskatchewan	9.15
Argentina	2.2
State of Arizona	5.68
State of Pennsylvania	1.16
State of New York	0.86
United States (as a whole)	2.01
Great Britain and Ireland	0.50
Russia in Europe	0.31
Russia in Asia	0.37

Source: Leslie R. Thomson, The Canadian Railway Problem, 1938, pp. 15

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<sup>4</sup> The Maritime Freight Act of 1927, passed on the recommendation of the Duncan Royal Commission, stipulated a 20% reduction in rail-ways rates for the Maritime provinces.

The problem was further aggravated by the fact that many rail lines were not economically viable even in a distant future. The explanation for this seems to be that railway sites were often selected by builders not on the basis of their economic viability, actual and potential traffic, but rather because of prestige consideration or enhancement of property values. As a result, a large percentage of the Canadian rail lines carry small amounts of the available traffic - 42% of mileage carries less than 5% of total ton miles of traffic. The distribution of traffic in 1930 is presented in Table 7-2.

**TABLE 7-2**  
**Distribution of Traffic Densities, All Canadian Railways, (1930)**

	Percentage of Traffic Expressed in Net Ton Miles
42% of mileage carries ....	5% of traffic
48% of mileage carries ....	45% of traffic
10% of mileage carries ....	50% of traffic
100%	100%

Source: Leslie R. Thomson, The Canadian Railway Problem, 1938, pp. 16

CNR thus inherited a large number of these unsound rail lines which pushed CNR further towards a public service role, where the notion of profitability was a secondary matter.

A fourth factor is "the largely shared public expectation about CNR as a provider of a public good"; this factor played a critical role in CNR's history and performance.

This widespread tendency in Canada, to consider railways as social institutions rather than as economic enterprises, has its roots in the beginning of this country, in the belief that prosperity and regional



equalization would be brought about by the institution of railways. Darling (1982) comments on this recurring theme.

"This attitude has amounted to a playing down or rejecting of economic decision-making in railways matters in the interest of wide "social objectives". The latter in turn have served as a cover under which different groups have pursued their own narrower self-interest. When the railways' ability to conform to such demands has been exhausted there has been no hesitations in calling upon the federal government to assume the responsibility by compensating the railways for the costs that have been thus thrust upon them. The dismantling of the economic factor as the governor of the system has led to very inadequate defences against pressures backed by specious social and humanitarian arguments".(p. 186)

There is no better example to illustrate this point than the problems of unprofitable branch lines. Several times, CNR attempted to abandon some of its branches, in order to first reduce redundant truckage and achieve better efficiency, and second, to reach a balanced competitive position with CP, as a basis for future cooperation. In this respect Stevens (1973) notes:

"Parochial and political pressures had made it next to impossible ever to abandon Canadian branch lines; whether or not they were used, was a secondary matter. Canadians regarded them as their birthright".  
(p. 317)

The strength, even ferocity, of this attitude is well captured by the opposition of the people of Saskatchewan to even joint exploitation of branch lines by CNR and CPR.

"They did not want any agreement between the systems; they clamored for more railways and more competition, the more cutthroat the better. The fact that the current Minister of Railways and Canals was a former premier of their province was not overlooked, and Ottawa was overwhelmed by a spate of appeals, demands and threats. Everyone - legislative assembly members, town councils, boards of trade, farmers' associations, church organizations and even fraternal societies - was brought into act in support of the sacred right to possess as many railways as could be obtained without paying for them". Stevens (1973), p. 342.

The impact of the public pressure on much of CNR's decisions and performance is acknowledged by the Duff Royal Commission appointed in 1929 to investigate the "financial extravagances" of CNR.

"When considering the scale upon which branch line extensions and acquisitions, as well as hotel expenditures were made, and railway and steamship services duplicated, it is impossible to avoid the conclusion that the Board of Directors and the Management of National Railways were amenable to political influence and pressure which it would have been in the public interest to have withstood". (The Duff Royal Commission, paragraph 154, quoted in Thomson (1938), p. 324)

But public pressure was not limited to the issue of branch lines. It also focused on, and attacked with unremitting zeal, railways' rate setting, "hardening, as Darling (1982) puts it, into a ritual stance, a regional litany, that became as much a part of Canadian life as Hockey Night in Canada". (p. 4).

The latter attitude lives to this day, barely touched by the radical changes in the economics of transportation which have largely removed its substance.

"It was kept alive by politicians because it is a risk-free form of agitation, since responsibility for action lies with the railway companies and the federal government.. The enthusiastic response an appeal to the issue still arouses in some parts of the country is of great assistance in mobilizing provincial opinion against Ottawa whatever the real points at issue". Darling (1982, p. 7)

These public pressures channeled through the political process resulted in a number of rate concessions, such as: the Crows' Nest Pass Agreement of 1897, the introduction of the statutory rates in the Railway Act of 1922, the Maritime Freight Act of 1927, the Bridge subsidy of 1952, the equalization of rates in the 1950's, the Freight Rates Reduction Act<sup>5</sup> of 1959 and the imposition by the government of a rate freeze for 1973-74.

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5 The Federal Government picked up the tab for a railway wage increase rather than permitting a rate increase.

"The Canadian National Railways, as the people's railway, has thus felt pressures that Canadian Pacific has escaped, although Canadian Pacific has felt pressures of another sort. One might put it best by saying that in the popular mind Canadian National is there to be exploited while Canadian Pacific is there to be fought". Darling (1982, p. 180)

Not only have the Canadian public's expectations had a heavy impact on CNR's economic performance, they also hardened in an evolving assumption about CN's responsibility for community service and welfare.

A fifth factor related to the genesis of CNR, is "the history of government interference and patronage" that characterized the relations between the Canadian Government and the first State-owned railway company, the "Intercolonial", (Stevens, 1973). This factor led to another assumption, present from the very beginning at CNR that "the success in the operation of a publicly owned property lays in its insulation from politicians of all ranks". (Stevens, 1973).

To understand the significance of this assumption in the life of CNR, one has to understand its roots. The "Intercolonial", as a state owned railway company, was regarded as the property of the party in power rather than of the people as a whole; and, as such, "the railway employees not only were instructed how to vote but were also shepherded to the polls and told that their futures depend on the way they voted". (Stevens, 1973, p. 100)

Several incidents give us a vivid picture of the extensive patronage practiced during this period.

Stevens (1973) describes for instance the case of the bitter complaints in Parliament when a special train for a liberal picnic was charged the same amount as a similar train for a conservative party, or the case of a P.E.I. senator vehemently complaining about having to pay

for his 18 relatives he carried with him on the Grand Trunk, beyond the "Intercolonial" trackage. From the start, CNR officials were dead set against any form of political patronage and direct governmental interference. Although attempts at the latter were by no means infrequent, blatant forms of patronage were virtually eliminated.

In this respect, the Duff Commission states (1932):

"Of direct political interference by ministers and members of Parliament in the detailed operations of the railway, we were assured by the officials there was little or none. It was in the larger sphere of policy that political considerations led to unwise and unnecessary expenditures the result of which was to create an atmosphere in which the ordinary principles of commercial operations of the railway were lost sight of." (1932, p. 50, p. 146).

This peculiar circumstance of CNR's genesis has moulded a vigilant aversion to any governmental interference in its operations. This determination, raised to the status of a value system, to remain independent from government interference, is particularly manifest in the effusive appreciation of strong CNR leaders, capable of fighting off government meddling. A typical example of this attitude is provided by Stevens (1973)'s comments on Donald Gordon, President of CNR between 1950-1966:

Gordon was a born leader and a bonny fighter; after 10 years of service, he knew a great deal more about railways, their potential and their necessities than any politicians. He has assembled a magnificent staff about him, men who had been inspired by his vision and his courage and who gave him support and advice that allowed him to meet his critics without fear or favor (p. 456).

### **7.2.2 The Impact of the CNR's Genesis on its Culture**

Two important assumptions have their roots in this early period and underpin a good deal of CNR's conduct over the years. They are: 1) "the public service role of CNR; and 2) "the need for independence from government interference for the successful functioning of CNR".

This first assumption is the result of the convergence of the following circumstances: 1) the amalgamation of a number of insolvent companies which have never gone through bankruptcy; 2) the government's lack of a transportation policy and of a clear mandate for its newly born Crown corporation; 3) the high railway mileage ratio in Canada and the unsound railroad structure CNR inherited; and 4) the Canadian public's expectation that CNR would act as a provider of a public good.

The second assumption may be explained by the character of its ownership and the history of government interference and patronage that marred its relationship with the first State-owned railway, the "Inter-colonial".

**Assumption 1: The Public Service Role of CNR**

The "public service" assumption appears as early as 1927 when Sir H. Thornton, the first President of CNR (1922-1931), launched the concept of "community service" as the mission for CNR.

"It must be our first endeavour," Thornton declares in a Public address in Ottawa in 1927, "not to operate this publicly owned railway for profit, but to benefit the communities we serve. Every individual in this railway is its loyal servant. I use the fine old English word "servant" in its highest sense because all of us are its servants. I am a servant and you are a servant and there is something very fine in the quality of being a good servant". (Quoted in Stevens, 1973, p. 379).

To serve Canadian communities, Thornton went beyond CNR's role as a common carrier and introduced school cars in 1926, through which children of sparsely populated areas could receive education and Red Cross cars for first aid services in areas where physicians and nurses were not readily available. No doubt such a vision was inspired by the peculiar circumstances of CNR's genesis. As Thomson (1938) puts it:

"Were profit the sole and ultimate criterion, either the whole railways have been bankrupt long, long ago, or approximately, from 10% to 20% of the lines of the Canadian National Railway would have been either abandoned or reduced to the lowest stage of maintainance". (p. 586)

The concept of CNR as an organization "dedicated to the welfare of Canadians at all times and places", as Thornton liked to think of it, permeated all layers of the corporation. It continued to be stressed and advocated over the years, by his successors: S. Hungerford, president of CNR from 1935 to 1942, Charles Vaughan, president between 1942 and 1949, and President Donald Gordon (1950-1966). The latter departed however from the purest form of this mission, as means of giving meaning to the organization's actions and of legitimizing its existence.

"Officers, officials and men of the Canadian National Railway are really under instructions to provide transportation service, profitably only if possible".  
(Thomson, 1938, p. 586)

Another manifestation of this assumption is found in speeches made by President Hungerford and his officers before the Duff Royal Commission, appointed in 1932, to investigate CNR's financial situation:

"Profits should not be accepted as the prime proof of value; CNR's contribution to the community should be measured by its socio-economic yield, by the value which it created".

To support their argument, they provide data showing that expenditure by both railways in the provinces had amounted to \$1,075,000,000 but that these increased the value of the area by \$6,000,000,000; the same argument was valid for the much criticized Jasper Park venture on which \$2.5 million had been expended but which increased the value of the area by more than \$4 million (Stevens, 1973, p. 355). Several other public services, such as the "preservation of the unity of the Confederation" and "providing competition to CP in the public interest", are stressed and used as means for defending CNR's right to exist.

"In the case of Canada", President Hungerford advocates, "a railway monopoly would not be unifying but disruptive, with each principal segment - British Columbia, the Prairies, Ontario and Quebec, Maritimes determined to obtain advantages at the expense of others". (Stevens, 1973, p. 368)

According to historical records, CNR's professed mission "of service to Canadian communities" was not mere lip service. For example, during the years of depression, the Colonisation and Agriculture Branch of CNR played an important role in making life endurable in the prairie countryside. It assisted 2,582 families in the occupancy of 471,544 acres. Its services included lectures, land advisers, demonstration trains and credit for the purchases of blood stock. Boys and Girls clubs and farm competitions were organized, with free trips to the Canadian agricultural fairs as prizes. A community progress competition had been organized for non English speaking communities and was serving one hundred fifty thousand settlers, with various agricultural aids and improved methods of marketing. CNR officers also embarked on enterprises designed to preserve native folklore, folk art and folk music for the many settlements of Central Europeans. The Boys and Girls clubs had spread into Eastern Canada, and by 1933 had 20,000 members. A campaign was organized for the temporary establishment of displaced farmers on developed lands that had been abandoned by their owners. Thus, Stevens (1973) notes:

"The Agriculture and Colonization officers, by virtue of their incessant endeavours became something like the English institution of Universal Aunts to the stricken country side. As a result, these well remembered officers have become part of the legend of the years and the source of many a song and story".  
(p. 366)

"The Community service" orientation remained prevalent during the war. A high proportion of railway employees supported the war effort in their leisure hours by joining the Red Cross and other community organizations. They provided mobile canteens, parcels and letters for the troops in the field, participated in the antiwaste campaign of paper and metal and in the victory loan campaign. CNR employees subscribed \$177 million during the war and more than 100 employees received decorations for devotion to duty. The remarks of Honorable Lionel Chevrier, Minister of Transportation (1945) provide a proof for CNR's devotion to the Canadian Community welfare.

"The railways have been the backbone of this country's war effort. They have nobly upheld the best tradition of railroading. For five years and a half, they have proven to be one of the most important lines of defence and offence in a global war. Much criticism was levelled at our railways in the prewar years, particularly in regard to excessive mileage. These critics would have reduced overhead costs by curtailing the mileage in operation. Had this advice been acted upon it would have been impossible for Canada to have played such an important part in this war. Our railwaymen, whether chief executives, engineers or section heads have played marvellous roles in keeping supplies moving to factories and to seaboard". (quoted in Stevens, 1973, p. 394)

The commitment to community service persisted well into the Gordon regime (1950-1966).

However, the fervor of serving communities as the only "raison d'être" of CNR, so prevalent during the previous decades, was no longer there. Medical and dental cars as well as schools on wheels continued to be provided in the thinly inhabited areas. "When a community demanded additional aid, the request was appraised less on its costs than on its yield to those in need" Stevens (1973, p. 132) notes. Lines and services, not always profitable, were maintained because CNR's prime purpose was to serve Canadian communities. Nevertheless, under Gordon, CNR departed for the first time from this professed mission. For Gordon, a government-owned railway must be operated at a profit and this is as important and necessary as service to the communities. They are twin necessities and both are to form CNR's mission.

Indeed, in response to a charge made by a section of the Canadian public that he was abandoning farmers' trackage, Gordon stated:

"We do not like abandoning lines. It is a confession of failure. We seek out every possible way to rehabilitate the line and keep it going. Before applying for permission to abandon, no less than eleven circumstances must be satisfied to back the application. Compassionate claims are however not enough to keep them open". (quoted in Stevens, 1973, p. 442)



However, he is not always successful in making decisions based solely on economic arguments and in disregard of public expectations and pressures, as the following statement made before a sessional committee in 1953, reveals:

"We had reached the decision to discontinue during the winter months our transcontinental train service, so that we would have only one train daily during the period when the traffic normally falls off. We found that the word immediately got around in Western Canada that we did not have a super-duper service any more. Cancellations of reservations began to appear. We also found a general reaction in respect to the prestige of the railway. Its impact on our freight service was much greater than we had expected. We saw that our analysis of what might be called the psychological effects of our cancellation had not been good. When I learned at first hand of the effects of our action I called together the Board of Directors who decided that we should not hesitate to admit an error of judgment. We felt that it was in the best interests of CNR that our decision should be reversed. When we did continue the double service that winter we obtained quite satisfactory results. The loss was not as great as we thought it would be." (Sessional Committee Reports, 1953, p. 79).

With Donald Gordon, an important change has been made in CNR's assumptions concerning its mission. Gordon attempted to prove that a publicly owned utility could be managed just as well as a private enterprise and yet be of equal value to the community. To achieve this, he made two requests to the Government. First, to be relieved from the debt CNR had inherited from its very formation in 1917-1922. Indeed, in 1952, before Royal Commission, he stated:

"The CN is the largest transportation system in the world. It is Canada's largest employer of labor, with over 110,000 employees. It is the largest single consumer of Canadian products. In the previous year it has passed the half million mark in earnings, with a net operating revenue of better than four percent; but because of its legacy of inherited indebtedness, its balance sheet shows a deficit of approximately ten times its operational surplus". (Royal Committee on Transportation, Appendix A, p. 60), (quoted in Stevens p. 423).

The Revision Act which relieved CNR of much of its inherited indebtedness in 1952, allowed the company to go to the money markets for its immediate requirements. On that occasion, Gordon issued a booklet to his employees that stated:

"This is the break that we have been looking for ... Thereafter our financial record will speak for itself ... We have nothing to hide behind or to stand in our way ... Our teamwork will tell the world that we know our jobs and will show results. Now let us get on with it". (Stevens, 1973, p. 424)

A second demand Gordon made was that Government accept the important principle that when transportation projects originated for local rather than national needs, part, at least, of the outlays involved or of the losses sustained, should come out of the public purse. Support for this latter demand came in the form of specific recommendations made by the MacPharson Royal Commission (1960) to the government. It stated 1) that burdens which had been imposed on railways for reasons of public policy should be removed and their liability assumed by the State, and 2) that the operation of railways in low-density traffic areas either should be accepted as a public charge or railways should be allowed to abandon them. These recommendations were accepted by the government in principle and went into effect some time afterwards. In 1960, subsidy payments of \$36,3 million were made to CNR and such payments continued in subsequent years. In 1964, the subsidies reached \$103,3 million (Stevens, 1973, p. 458).

However, these recommendations were turned unto law only in 1967 with the National Transportation Act, after seven years of intense debate.

The general intent of the Act was that railways should receive compensation from the government for services which cannot be provided commercially but which must be maintained for reasons of public interest. A program of subsidies is established by sections 252-261 of the Railway Act, under "Abandonment and Rationalization of Lines or Operations". Under this Program, the railways may receive a subsidy to recover all their losses, as calculated by the Canadian Transportation

Commission, on the operation of unremunerative branch lines and up to eighty percent of their losses on unremunerative passenger services, after a hearing has been held concerning an application by a railway to abandon a line or a service.

According to Heaven and Nelson (1977), this section of the Act did not work satisfactorily, but a significant contribution of the National Transportation Act was its recognition of the principle of compensation for public services rendered.

So far, we have seen how the circumstances of CNR's genesis (i.e. the amalgamation of a number of insolvent companies, the absence of any clear transportation policy and mandate for CNR; the unsound railway network inherited by CNR; the public expectations and pressures channeled through political processes) have been powerful forces that instilled a "public service" philosophy at CNR. The crown corporation's performance is to be judged on its contribution to the economic and social development of Canadian society rather than on its profitability. Definitively, changes in the industry structure along the years, such as the appearance of strong and dynamic intermodal competition fostered changes in the regulatory environment and both brought about adjustments in CNR's structure and culture. However, a detailed discussion of this issue is provided in another chapter titled "The Industry Structure as Contingency Factors", where changes in CN's structure and culture are related to the fundamental changes in CN's environments.

**Assumption 2: Independence From Government Is Necessary to Successful Operations**

A second assumption prevailing at CNR and directly related to the circumstances of its genesis is "the need for independence from government interference".

In principle, the fact that CN is a crown corporation has little bearing on the day-to-day running of the company. The government appoints the chairman and members of the board, and the Parliament must

approve its annual budget. However, as already mentioned, because of the tradition of pervasive political interference and patronage at "Intercolonial", CNR struggled from the start to insulate itself from politicians.

Evidence to support this assertion is abundant. It starts with the events surrounding Hanna's appointment in 1917 as the first General Manager of CNR, which was at that time still not incorporated and in its formative stage.

An experienced railroader and a keen and informed observer of the various incidents of interference and patronage by the government in the running of the "Intercolonial", Hanna set a condition for his acceptance of the position of General Manager: that there be an official pronouncement whereby the government would commit itself to refrain from any meddling in CNR's decisions and actions. In September 1917, Y. D. Reid, Minister of Railways and Canals provided the required assurance. In a letter to Hanna he wrote:

"Your Board must operate without any interference from anyone connected with this Department or outside it. The future of government ownership of railways depends entirely on their operation being carried on free from any political or other influence". (quoted in Stevens, 1973, p. 301)

On March 16, 1918, the Prime Minister, Sir Robert Borden, underlined this assurance in a speech in the House of Commons:

"We shall use every means available to the government (and if necessary we shall come to Parliament for that purpose) in order that anything like political influence, political patronage or political interference shall be eliminated from the administration of the railroad". ((quoted in Stevens 1973, p. 301)

These promises were swept away by the newly elected government of Prime Minister MacKenzie King. As a consequence, Hanna resigned.

Hanna's successor, Sir Henry Thornton, the first President of the CNR incorporated (1922 - 1931), adhered to the principle of indepen-

dence from government for the good functioning of his organization. Indeed, he undertook publicly to seek no political aid or grant no politically inspired privileges. Several public statements convey clearly this view:

I intend to make it as clear as I possibly can", he declares in a press interview in 1922, "that there is not going to be any government interference in the management of Canadian Government Railways. My board, I feel sure, hopes to administer this great property in the interest of no section, but of all Canadians". (quoted in Stevens, 1973, p. 310)

In an address to the Montreal Chamber of Commerce in 1923, he states:

"I regard the Canadian National Railways as a child brought into the world by one government and fostered by another. As far as I am concerned I am merely the nurse of this child. I am quite indifferent as to its parentage. Success or failure of this system must not be the sport of politicians or the football of special interests. It belongs to the people as a whole and not to the party in power". (quoted in Stevens, 1973, p. 321)

To achieve independence from the government, Stevens (1973) notes: "Sir Henry Thornton was determined to build a viable property that possessed an image too valuable to be subject to parochial pressures to be at the mercy of the strategy and tactics of party politics". (Stevens, 1973, p. 321)

However, although Thornton bolstered the significance of CNR in Canadian society and image as "an organization dedicated to the welfare of Canadians at all times and places", he never succeeded in making CNR a viable economic entity or to really gain independence from the government. As the Duff Commission (1932) has shown, many uneconomic decisions CNR had made during those years, were the result of strong political influence and pressure to which CNR management succumbed with the corresponding disturbing consequences on CNR's performance. Sir

Henry Thornton himself expressed this view in a statement he wrote to the Duff Commission in the course of its inquiry:

"One of the inherent disadvantages of any State-owned enterprise such as the CNR, is the problem of political interference and one might also add, public pressure. In making this statement I wish it distinctly understood that I imply no criticism of any party or any government, present or past. I merely state a fundamental and universally admitted condition." (Thomson 1938, p. 9).

When Sir Henry Thornton resigned in 1931, the deficit amounted at \$60,869,795, a figure which did not take into account the accrued but unpaid interests due to the government on loans and advances. (Thomson, 1938, p.9)

The assumption that CNR should be at all times insulated from government interference, was shared and nurtured by all successive presidents of CNR and is still present today. However, until Gordon (1950 - 1966), it had coexisted with the first assumption stemming from CNR's early circumstances, that CNR has a "public service role and mandate" and therefore that profitability is not a very useful or informative basis on which to judge its performance.

It is not difficult to see that these two assumptions tend to be mutually exclusive. To be committed to a view of CNR as an instrument to achieve non-transportation objectives means relying on government subsidies and therefore be prepared to accept as a by-product, some degree of government interference. A sort of vicious circle is at play: the more public service, the less efficient, the more financially dependent on government support, the more government interference, the more "public service" and so on.

For almost five decades, CNR had been in the throes of this conflict. With Gordon, however, the role of CN as a "public service" institution is toned down and the "necessity of profit as a goal" is

set up. "Gordon knew that one preserves one's independence and proves its right to exist only by not asking subsidies from the government". (Stevens, 1973, p.450)

Gordon's relations with the government were cordial but firm. "He had built up an atmosphere of confidence. He had answered questions with authority, straight forwardly; if they were inspired by political cagery, he would deal with them tersely or on occasion jocularly." (Stevens, 1973, p. 450)

Gordon pursued stubbornly the goal of profitability as a mean to independence; to this end, he reorganized and modernized CNR and got the government to acknowledge its responsibility for expenses incurred by CNR in carrying out public policy mandates.

For his performance in these matters, Gordon has the stature of a true hero in CN's hagiography:

"At a time when railways were facing mortal challenges from other carriers, CNR had more than held its own, with earnings that mounted year by year. It had conformed to or had improved upon every technological advances; its skills in operations, in management, in research, in anticipating the trends of tomorrow, had been recognized and had brought handsome commissions from abroad.... Perhaps, Gordon's crowning achievement was the proof that a publicly owned utility could be managed just as well and would be of equal value to the community as a private enterprise". (Stevens, 1973, p. 500-501, emphasis added)

Nevertheless, attempts by government to interfere in the affairs of CN never ceased, either before, during , or after Gordon's time, only their intensity and degree of success tended to vary with successive presidents and governments. Metcalf (1980) in his memoirs, provides pungent vignettes of the game played by ministers and CN officials. Some of them are presented in the appendix to this chapter to provide the reader with the flavor of the goings-on.

### 7.3 Leadership Factors

Leadership factors affect powerfully the functioning of any organization. Past leaders leave their traces, and influence future operations through three mechanisms:

1. Past leaders' recipes for success, their responses to tribulations and misfortunes, stored in the organization's memory, provide a legacy of myths and lore that may be called upon to solve present-day problems.
2. Past leaders' influence on formal properties of the organization such as organizational structure and strategy, policies regarding the selection, promotion, firing and training of personnel, reward and control systems, have a lingering and highly determining impact on the present state of any corporation.
3. Past leaders' management style, their concept of the organization's purpose, their practice of leadership, their value system, are impressed upon younger generations of managers; these leaders often are inspirational role models to managers still in their formative years. In organizations where promotion from within is the rule, present-day leaders may function under the spell of these venerated role models; to put it perhaps too strongly, contemporary managers may be the unwitting slaves of defunct leaders, copying the behavior they have come to associate with successful leadership. For example, any senior manager of CN now in his early fifties would have been twenty when Donald Gordon took over as President of CN in 1950 and thirty-six by the time Gordon retired from that position.

To all extent possible, we shall ferret out evidence relating to instrumental values and assumptions in CN's leadership and management with respect to the following dimensions:



- a) the responsibility of the organization to the individual and vice versa;
- b) the nature and source of authority and leadership; and
- c) the nature of the relationships between members of the organization.

However, before attempting any effort in this direction, it is necessary to present at this juncture, a chronological list of CN's Presidents, accompanied by a short biographical note for each one of them.

### 7.3.1 CN - Presidents

- D.B. Hanna - The General Manager of the first Canadian National Railway System : 1918-1922.
- Sir Henry Thornton - Chairman and President of the Canadian National Railway System : 1922-1932.
- CNR under trusteeship: 1933-1935.
- S.J. Hungerford - President of the CNR : 1935-1941.
- R. Charles Vaughan - President and CEO of CNR : 1941-1949.
- Donald Gordon - President and CEO of CNR (and from 1962 onward of CN) 1950-1966.
- Norman MacMillan - President and CEO of CN : 1966-1974.
- Dr. Robert Bandeen - President and CEO of CN : 1974-1982.

David Blythe Hanna (1918/1922) is the first General Manager of the newly formed Canadian National Railway System.

Hanna had been in the railway business since 1875. From 1895 to 1918, he was in partnership with Sir William Mackenzie and Sir Donald Mann in "Mackenzie and Mann", the company which built the Canadian Northern Railway. In Steven's book on CN he is characterized in the following way. "A restless and irrepressible Scot...", "indefatigable and indomitable...He was the outstanding Canadian railway executive, a man of few illusions and unparalleled experience". (Stevens, 1973 p. 177). Besides his extraordinary experience in the railroad, Hanna brought to the Canadian National Railways the strong conviction that the future of government ownership of railways depended on their operation being carried on free from any political influence.

In this sense, Stevens (1973) notes:

"He knew that the only hope of success in the operation of publicly owned properties lay in their insulation from politicians of all ranks and cadres from aldermen to prime ministers. Before accepting the post, he made it quite clear to Sir Robert Borden that an official pronouncement to this effect must precede his appointment as general manager of Canadian National Railways. (p. 301).

Hanna's first achievement during his short directorate was the rehabilitation of the railways that had been dilapidated by the war.

He resigned in 1922, after a clash with the newly elected Prime Minister, MacKenzie King, on the issue of CNR's independence from government influence.

Sir Henry Thornton (1922/1932) President of CNR.

Born in Indiana, he joined the Pennsylvania railroad in 1894 after graduating from university. "He was among the first of the educated railroaders and he found no difficulty in competing with those who had learned their trades in the hard school of experience", (Stevens, 1973, p. 307).

In 1901, he became Divisional Superintendant at Pennsylvania Railroad. When the commuter service "Long Island Railroad" was established in New York city, he was appointed Assistant to the President.

In February 1914, he was appointed General Manager of the Great Eastern Railway in Great Britain. Several months later, he was recruited as an adviser to the war office on transportation problems and soon after "Inspector- General of Transportation" in France. In March 1919, Thornton was knighted. He continued to work at Great Eastern Railway headquarters until his appointment as President of CNR in December 1922.

"His decision to leave England", Stevens (1973) notes "evoked newspaper headlines in all parts of the British Isles, with widespread expressions of regret. England to lose superman read a typical headline in the London press. He had not been Anglicized, but he was what nearly every Englishman in his secret heart would have liked to be - a good chap at his job but not chained to the rule book, able to sustain the dignity of his position without being stuffy about it. Honors crowded in on him; his Majesty, the King, invited him to stay at Windsor Castle, and perhaps most significant of all, he received the first membership badge in a railway union ever to be awarded to an executive officer". (p. 310)

Thornton's management philosophy consisted of three main theses: First, subordinates are important elements in organizations, and as such, they should be made to feel that they count. Second, a manager can elicit a high level of performance and commitment from his employees by adopting an easy going, friendly, popular managerial style. Third, railroad customers, especially those in the commuter traffic, are not only travelers but also guests of those who carried them; and as such they deserve something similar to what passengers get on ocean liners.

Sir Joseph Flavelle, who played an important role in the merger of the various railways into the CN System, wrote about Thornton to J.A. Dafoe, the editor of the Manitoba Free Press, as follows:

"He is very simple and unassuming, speaks little of himself but stresses the value of team-play. Nor does he attempt to create a favourable opinion of what he may do in the future by finding fault with the present system... He is an excellent mixer and has quite won the hearts of all who have met him. If he is as good in action as on dress-parade the Government has made a wise choice. (Press Interview in Montreal, Sept. 20, 1922).

Thornton's career with CNR ended in 1932, when he was forced to resign by the new federal government of Premier Bennett which appointed the Duff Royal commission to investigate and report upon the conduct of CNR's affairs and the causes of its financial woes.

#### The Role of Trustees (1933/1935)

Following the removal of Thornton in 1933, the Parliament adopted an act that replaced the Canadian National board of directors with three trustees, replaced the office of president with that of "Chief operating officer" and directed the corporation to co-operate as closely as possible with Canadian Pacific. (Stevenson, 1973).

Sir Henry Thornton was replaced by Samuel James Hungerford, whose appointment as President was not confirmed for 18 months. His official designation during that period, as early stated was Chief operating officer, reporting to the Board of the three trustees. In 3 years the staff was cut by 40% and the CN earnings have fallen by 36%. This solution was proved to be unworkable. As a result, in 1935, CN was returned to a seven-member board of directors.

#### S.J. Hungerford (1935/1941), President of CNR

The information on President S.J. Hungerford is scarce. He was an experienced railroader, who worked under both Hanna and Thornton as Vice-President Operations. After the period of trustees, he resumed enthusias-

tically his work as President, trying to renew and strengthen CN relationships with the business community and improve operating performance.

According to Metcalf's memories (1980), President Hungerford was very uncommitted, ultraconservative and afraid to give any extra recognition to his subordinates in order not to lead to special expectations or disappointment on part of others not favoured. Metcalf recollects an instance supporting this view:

"Autographed photos of the President, in answer to request had been dispersed by the dozen and always the message was the same: Yours faithfully, S.J. Hungerford. After 20 years or so of personal service, the photography given to me was endorsed: Very sincerely, S.J. Hungerford". (Metcalf 1980, p. 206).

#### R. Charles Vaughan (1941/1949)

Vaughan worked as an assistant to Hanna and as Vice-President, Purchase and Stores, under Presidents Thornton and Hungerford. At his insistence, he was also granted the title of "Chief Executive Officer" "to eliminate any doubt as to who was running the railroad". (Metcalf, 1980, p.239)

Commenting on Vaughan, Metcalf (1980) notes:

"He had been intimately associated with the affairs of the CN and predecessor companies for all of his working life and had passed as a man of high character, ability and courage. I include courage because this is not the least of the qualities needed for a successful top executive of the CNR." (p. 239)

Several other features are characteristic of Vaughan, according to Metcalf (1980).

"He is ambitious and driven", "loyal to his company" he never loses an opportunity to rise to the defence of the enterprise", "responsible and not afraid of responsibilities", "having high standards of morality", "appreciative of his staff's good work but never lavish in praise", "has courage to stand for his people", "modest" (he moved to the new office without fanfare and maintained all the old staff), "good organizer and frugal".

"Vaughan retired in 1949 amid a chorus of praise for his assiduous and courageous administration". (Stevens, 1973, p. 415)

### Donald Gordon (1950/1966)

Born in Scotland in 1901, Gordon arrived in Canada at 14 and took his first job at \$6 a week. At 16, he joined a bank and at 30, he reached managerial ranks. In 1935, on the formation of the Bank of Canada, he became its secretary. Three years later, he was appointed its deputy governor.

In 1940, Gordon was appointed Chairman of the War Prices and Trade Board, an organization established to control Canadian commerce and industry.

Referring to Gordon in this position, Stevens (1973) writes:

Gordon decided what the nation might have and what it must do without. Each year, he covered many thousand miles, counselling and cheering his subordinates; he had six hundred local committees, of which more than a hundred were exclusively composed of housewives. They often waited for his arrival with black words and even anger in their hearts, but he seldom left except amid cheers and laughter. He had a certain amount of the ham actor, the Rory O'Moore, about him; in a handful of back-chat exchanges, he could win the day. On occasion, he was stern and peremptory, but more often he was sentimental and even emotional. He based his demands on a single plea - that the civilians at home should exhibit the same attitude as their kinsmen on the battlefields". (p. 416)

The results of his work are significant. The prices of controlled commodities in Canada increased only by an average of 3 percent per annum, far below those of other combatant nations.

According to Stevens (1973), "no single Canadian matched Gordon in inspiring community effort". (p. 416)

The Honorable Lionel Chevrier, then Minister of Railways, said of him:

"He was given the job of building a complicated structure of price ceilings, supply controls and rationing machinery almost overnight. United States officials, who followed the same path a year or two later, made no secret of the fact that their policy and organization were patterned on the Donald Gordon plan. He was one of the first few men to rule as a price czar and to return to his peacetime work with the plaudits of commerce and industry on one side and of the consuming public on the other ringing in his ears. (quoted in Stevens 1973, p. 417)

After the war, Gordon went back to banking. By 1949, he was the Canadian representative to the International Bank of Reconstruction and Development. In 1950, he was called to succeed Vaughan as President of CNR. Commenting on this event, Stevens (1973) writes:

"He [R.C. Vaughan] was succeeded by one who on his own admission, knew nothing at all about railways. Nevertheless, viewed from two decades later, there are grounds for the assumption that if there had been no Donald Gordon, it would have been necessary for Canadian National Railways to have invented him. At the close of the 1940's, the company's debts were mounting, its freight volumes were diminishing, its passenger traffic appeared to be doomed. The old controversy as to the wisdom and justice of competition between a private corporation and a public utility still simmered; to many Canadians, the participation of government in business appeared to be an unnecessary and unfair intrusion. Sectionalism, stilled by the war, was reviving, and local attitudes prevailed on politics. In such a situation, Canadian National Railways needed a champion, tough and resolute, prepared to take on its adversaries on their own ground". (p. 415)

Metcalf (1980), who worked under various CNR presidents, including Gordon, entrusts to his memoirs the following:

"In serious moments of round table discussion, he was at once a sympathetic listener and a constructive contributor, with a rare ability to summarize the points when coming to a decision. And if engaged in a debate, his ability to think clearly and speak plainly, reinforced with a powerful voice and those thick-lensed glasses, made of him an adversary to be recked with." (p. 299) "Despite this picture of an awesome person, he was a friendly and congenial man with a rare sense of humor and a heart as big as the house". (Metcalf 1980, p. 299)

Gordon's achievements at CNR will be addressed later on in this document. He retired in 1966, after 16 years at the helm of CN.

Norman John MacMillan (1966/1974)

MacMillan was born at Bracebridge, Ontario, in 1909. He joined the Canadian National Railways in the 1930's as solicitor in the Winnipeg office.

Vaughan, in preparation for leadership succession, chose MacMillan as the person best qualified to succeed him. MacMillan rose steadily, becoming a vice-president in 1949. He failed to be appointed President in 1950 when the position was given to Gordon. By 1956, under Gordon, he became executive vice-president.

"For ten years, thereafter, he proved a courageous and efficient chief of staff; not only carrying out orders but on occasions improving on them." (Stevens, 1973, p. 501)

An admirer of MacMillan is quoted in Stevens (1973) as stating:

"He exhibited astonishing mastery of detail, he talks of roadbeds and trucks with the familiarity of a section hand ... his unflappable temperament is equal to any challenge. He seems to have a built-in governing mechanism which is revealed in his manner of speaking - down to earth simplicity, couched in full, carefully-phrased sentences". (p. 501)

He retires in 1974.



Robert Bandeen (1974/1982)

Bandeen was born in Alderborough, Ontario in 1930. An energetic youngster, Bandeen was an active presence in all the schools he frequented. Bruce Foster, his high school principal remembers:

"Bandeen was one of the finest young men around. He participated in everything. He had a mind of his own, but it was always bent for the benefit of the student body and the school". (The Montreal Business Report, 1982 p. 17)

Bandeen obtained a Ph.D. in Economics from Duke University, in 1955. Immediately after graduation, he joined CN as Assistant Economist in the Research and Development Department at CN.

By 1960, he was part of the corporate staff and as a staff member, he participated to the MacPherson Commission which led to the National Transportation Act of 1967. Between 1968-71, he held the position of Vice-President, Planning and Finance. In 1971-72, he was given a grounding in operations as Vice-President for the Great Lakes region, with responsibility for CN's Grand Trunk subsidiary in the U.S. It was to the U.S. rail operations that he first applied the principles of profit centered management he was to implement when he became President of CN. In 1972, Bandeen was appointed Executive Vice-President of Finance and Administration and in 1974, President and CEO of CN.

Bandeen's management philosophy hinges around two principles:

First, an organization, and a crown corporation is no exception, needs to be market-controlled and profit oriented:

"The discipline of the market place is incredibly important to me", Bandeen says, "What I was trying to do when I was President was substitute my sort of stubborn pigheadedness for the discipline of the market as far as management was concerned". (The Montreal Business Report, 1982, p. 13)

When interviewed he comments:

"I am not a socialist. I believe in profit as the basis for economic development. I am profit oriented and a crown corporation should be run as any other business". (Interview, June 20, 1983)

Second, the leader has the duty to provide and create the environment in which people's energy and talents, are released and fully utilized:

"You have to get in the habit of using the skills of your people totally. You have to give them their head, let them do things and accomplish. You have to be prepared to hold their hands going down some alley ways you would just as soon not go down. Sometimes, you are better to go along with some ideas you think are wrong". (The Montreal Business Report, 1982, p. 15)

"Having lived with the people of CN for so many years, I had a lot of respect for them, for their expertise, talent. I was impressed with them, but at the same time I was frustrated that nobody was there to motivate them, to put people, skills, excellent equipment and facilities together to make money. The Board of Directors was not interested in CN's making money or motivating people. They are political opportunists". (Interview, June 20, 1983)

When asked how did he go about motivating people, he answered:

"First, by public speeches, by trying to communicate to people your intentions. I called press conferences. I have made a heck of a lot of speeches, hundreds of them. Talking about our assets, instilling purpose and pride in people for their work... For instance, in my trips to various regions, I would call a press conference in the morning, so that my speech will be on the news at lunch time and the wives could call their husbands and tell them about my speech, making them feel proud of CN. I would meet as many people as possible, invite for reception 400-500 people to communicate with them, to be visible, to establish in their minds that you, as a leader, are interested in their work, their productivity, to convey the bottom line orientation of the company, to make them feel responsible and proud to belong to CN. They should not be ashamed in front of their neighbors for consuming tax payers money; many people at CN work without supervision. They work with million dollars of equipment without being supervised. All this equipment is in the hands of unions. Without motivation and supervision, there is nothing to control them. That is why, motivation and pride of belonging are so important... Management is leadership. The leader must be the focal point and the person who gives guidance". (June 20, 1983)

During Bandeen's tenure as chief executive office, a number of major actions were taken:

1. The restructuring of CN into divisions operating as profit and loss centers and the grouping of non-rail businesses in CN Holdings (later CN Enterprises)
2. The spinning-off of burdensome passenger services to a newly formed crown corporation: Via Rail.
3. The restructuring of CN's debt and equity position by getting the government to forget interest payments and transform debts instruments into equity.

In 1982, after putting CN on a commercial footing (from 1976 to 1981, the CN has made profits every year, without parallel in its history). Bandeen resigned from CN, apparently at conflict on a number of issues concerning the future of CN with the Board members. He is presently President and CEO of the Crown Life Insurance Company in Toronto.

### **7.3.2 Instrumental Assumptions and Values at CNR Shaped by its Past Leadership**

#### **Assumption 3: CN is a Big Family**

An analysis of the historical documents of the CNR in search for the assumptions and values of its leaders, reveals a community of views, along the years, until mid 70's deriving from a common sharing by successive presidents, in the metaphor of the organization as "family".

As Dyer (1982) writes:

The term 'family', suggests that people are inextricably connected to a social group and that they are oriented toward preserving and maintaining the integrity of that group. Maintenance of the group supersedes individual motives and desires and strong affective ties bind the 'family together'."(p. 18)

Indeed, the first President of CNR, Sir Henry Thornton (1922/1932) expresses this view in his public addresses, wherein he underlines the strong feelings of kinship that must exist among the members of the large family which is CNR:

"One of the essentials of being a good servant is not only in loyalty to the organization and jealous pride in its reputation but likewise in the loyalty of every officer and man to each other and the jealous regard for the reputation of all who are our neighbors."  
(Public Address, Ottawa Banquet, 1927)

The concept of CNR as a "family" manifests itself in a set of characteristics of the organizational life at CNR which will be described in the next part of this chapter.

#### **The Responsibility of the Organisation to the Individual:**

The family metaphor suggests that a good family head should feel concerned for all his/her family members and to this end he/she should attempt to provide them with both present and future security. In the organizational setting of CNR, this takes the form of provisions for career security, pensions funds, medical care, life insurance and last but not least, training and education for the needs of tomorrow.

Indeed, in 1925, before a standing committee of the House of Commons, Thornton declared that: "when employees had given their lives to a service, it was not less than their due that they should earn special considerations when their working years were over. He tabled pension proposals that staggered the parliamentarians of the day, but all of which came into effect in due course" (Stevens, 1973, p. 325).

Evidence to support the 'family' head's concern comes from Thornton's behaviour vis-à-vis his employees during the depression years.

"He believed", Stevens notes (1973), "to be the duty of employers under all circumstances to see their workers should not be thrown into the streets."  
(p. 348)

Indeed, Thornton resisted the general industrial and commercial tendency to cut staff. Forced nevertheless by the tough economic circumstances of the recession, he reduced salaries, including his own by 10%.

Thornton's successors proved to be animated by similar values, all overt expressions of the deep rooted assumption that CNR is a big family. Indeed, immediately when the company showed a sufficient surplus to meet its inherited interest charges in the second year of war, President Vaughan hired 6,705 additional employees and provided a cost of living bonus and unemployment insurance for all ranks.

President Gordon also espoused the "family" concept. His concern for the well-being and security of CNR employees are revealed in numerous actions he took: finding alternative employment, either within or outside the company when reductions in the labor force were required; increasing benefits to laid off employees; introducing a Voluntary Early Retirement Plan; establishing a Centennial Scholarship Plan for dependents of employees and pensioners; and, developing a pension fund for CNR employees.

"Besides placing the official family, like organized groups in line for regular reviews of salaries, generous new bases were supplied to the calculation of pension benefits for all classes of employees, under a plan of compulsory contributions, which was also something new." (Metcalf, 1980, p. 345)

Commenting on this same topic, Stevens (1973) writes:

"The company pension fund is a story in itself. It is the family savings kept first under a brick in the fireplace, then in a stocking, then in a bank, growing steadily and ever improving its terms of subscription and payout. There were major changes in its procedures in 1935, 1952, 1959 and 1962, but all were designed ultimately to improve the lot of the pensioners. In 1960, the company became an individual subscriber and paid up its whack each year, instead of charging itself annually with the outlays of the preceding year. By then, the fund had assets of \$708,145,711. On January 1, 1961, additional flexibility was sanctioned: thereafter, any employee with fifteen years' service who had reached the age of sixty might become eligible for pension.... In addition to ordinary pensions, Canadian National Railways in 1964 found \$6.9 million for welfare projects, which included medical care, life insurance and other benefits for its employees." (p. 500)

Promotion from within and the training and development of its own work force are habitual corollaries of the "family" assumption. Training and education for the needs of tomorrow, are essential to prepare employees for promotion and career development.

CN established the Railway Staff College in the mid-1940's under President Vaughan, to offer training programs for all management cadres. President Gordon solidified them and set up new ones. In the 1950's, he established a Diesel School of Instruction. A six-week course for selected managers was set up at Bishop University, in June 1953 and given every year since until 1982.

"By this medium", Metcalf notes (1980), "persons of ability and latent talent were brought to the fore and became candidates for promotion in departments other than their own. As examples, I can think of a supervisor in the Dining Car Department who moved through Operating and became General Manager of the Ontario Northland Railway, a friendly connection and important traffic originating line; and my own secretary became Area Manager at Saskatoon" (p. 333).

With the support of unions, Gordon initiated eleven major employee training programs. "The satisfaction that workers obtained from improvements in their crafts brought rewards of pride, to say nothing of additional pay. Intensive training bred a new atmosphere and a new attitude towards the task at hand." (Stevens, 1973 p. 346)

The intense competition of the 1960's called for huge changes in CNR's structure, strategy, skills and mentality. Indeed, Gordon's undertook a major decentralization of administrative responsibilities to render CN more flexible and competitive, introduced a System Freight Sales Program in 1962, followed by a number of Marketing and Distribution seminars for senior personnel.

"Almost to the last man, the CNR employees were being prepared through training programs for the railway of tomorrow." (Stevens, 1973, p. 446)

The family metaphor also permeates the process of promotion at CNR. For a long time, promotion from within based on long experience in the railroad seems to have been the "ticket" to the top of CNR. Indeed, all presidents of CNR, with the exception of Sir Henry Thornton and Donald Gordon, who were brought from the outside, (and in a way, Robert Bandeen, who joined CNR, only after obtaining his Ph.D. in Economics, but made otherwise his entire career at CN until 1982), were highly experienced railroaders, who had entered the organization at an early stage in their life, worked in the field and headquarter and proved to have a detailed knowledge of all operations related to railroad. A typical statement concerning some of the qualities required to be an executive at CNR comes from Metcalf, while talking about President Hungerford:

"Hungerford was a real professional in the railways industry. Before the Select Standing Committee of Railways, he always knew all the answers to the questions". (Metcalf, 1980, p. 281)

To the same effect, Harrison notes in the Montreal Business Report (1982):

"The way to become Vice-President was to start as office boy and work your way through the ranks". (p. 10)

Both Metcalf (1980) and Stevens (1973) report that "promotion from within" is seen as the only alternative and that to bring outsiders in was an unpopular thing. The procedure of promotion from within might have started as a consequence of the peculiarity of the CNR's genesis, that is, the existence of a surplus of officers and managers as an aftermath of the amalgamation. Nevertheless, its institutionalization may be equally seen as an expression of CNR's responsibility vis-a-vis its employees under the "family" assumption.

In terms of criteria for promotion, "seniority" and "experience" in the Mechanical Department seem to have played an important role in the earlier years of CNR. In the mid's 1930's, a merit system was gradually introduced.

"By 1947", Metcalf notes (1980), "scientific selection and training of personnel would become an important function of top management, when the establishment of a "Pure" Personnel Department at Headquarters and then on the regions started. All applicants for employment were as a result required to complete questionnaires and other prescribed forms. The procedure was designed to screen and thus to raise the standards of new employees taken into service."

President Vaughan, in 1949, appointed a Vice-President of Personnel whose mandate was to organize a modern department to anticipate the future growth of the railway business and to plan for the replacement, training and selection of staff needed to provide efficiency in service and in administration. Annual reviews for adjustments in official salaries and classifications were undertaken. These procedures and the selection and testing of candidate in a newly-organized officer's training course facilitated advance planning for five and ten years of expected replacements in supervisory and official personnel.

(Metcalf, 1980, p. 332)

However, despite Presidents Hungerford's and Vaughan's efforts to eliminate the seniority or the character of the job, as determining factors in the selection of supervisory staff for new appointments or for promotion, this principle continued to persist in some departments into the 1950's. Thus, Metcalf (1980) reports that the ruling principle in the Traffic Department, continued to be that:

"The Traffic Department should be the preserve of those who had been engaged there as juniors. They did not need to possess any special qualifications and were entitled to expect preference for promotion within that department. The principle was, naturally enough, popular within the department. It was easily and painlessly applied by simply closing the doors to interested candidates of other departments. In practicing over the years what resembled an automatic ladder of promotion, it could be assumed that the most talented within the organization did not always reach the top..." (p. 327)



"The departmentalism of our own Traffic Department might be said to have been finally dissolved by forces within the company and the department. The company required that each department produce a five-year plan of replacements for official positions. With advancing ages, the prospect of voluntary early retirements, and other separations from staff, the consideration of a ten-year plan supported the transfusions made possible by an expanding office of traffic research and the operations of staff college."  
(Metcalf, 1980, p. 332)

### The Nature and Source of Authority and Leadership

The "family" metaphore, particularly the patriarchal type, also implies that the father is the supreme source of authority and orientation, the person who decides what is right or wrong, what should be done and what shouldn't, how and when - all, for the benefit of the individual members and for the family as a whole.

In such a case, the source of authority is obviously the position. Indeed, policy decisions and statements concerning important issues such as the future orientation of CNR, its reorganization, the introduction of new technologies, the formation and training of employees, the relations with the Government, remain all presidential prerogatives. For instance, President Gordon centralized policy statements under his authority.

"While there may have been some problems in the early days of the Canadian National Railways" arising from answers by line officers to representations from local politicians, this was no longer the case. Written enquiries from Members and Senators and Ministers, especially anything touching on matters of policy were by long recognized custom, addressed to the President or his office or referred to him for reply". (Metcalf, 1980, p. 298)

The decision-making process at CNR, is top-down. This is not to say however, that superiors were not generally open for suggestions coming from the lower ranks. A number of initiatives indicate a willingness to listen to well focused suggestions coming from the field: the Cooperative Plan introduced by Sir Henry Thornton in 1924, whereby employees in the

shopcrafts and maintenance were encouraged to offer suggestions; by the call of President Hungerford in 1934 on all departments to file reports on problems encountered in their activities and to recommend solutions; by the improved Cooperative Plan system under President Vaughan; in the management committees used by President Gordon for weekly debates on issues of general interest, for which no prepared agenda was distributed in advance. As to this latter manifestation, Metcalf (1980) notes: "Departmental officers could be brought to those meetings, to support or oppose proposals under review, and incidentally, to expose their talents to higher ups" (p. 311).

However, despite efforts for keeping channels of communication open, the process did not always work as expected. A large hiatus existed, for instance, between the activities of officers at headquarters and the line managers.

"Occasionally we found the interests of the company were suffering from what seemed to be a lack of easy communication between line and officers at headquarters. For instance, the movement via a competitor, of carload traffic from an industry local to the CNR, was ascribed to the influence of banking connections in the United States; the loss of traffic, in another case, was said to be due to the non-settlement of a claim for loss and damage. Neither of these examples, and they are only cited as examples, had been brought to the attention of regional or headquarters' officers who were thus deprived of an opportunity to be of help. In their visits with local people, headquarters' officers emphasized and encouraged - not by way of criticism - the importance of keeping open and using the easy avenues of communication available within the railway". (Metcalf, 1980, p.312)

The leadership style, which is usually a good indicator of the leaders' assumptions concerning "the nature and source of authority" can only be described as authoritarian-paternalistic. The president is a "pater familias" from whom must flow wisdom and direction. At each level, managers look up for direction and expect the same attitude from people at lower levels.

### The Nature of the Relationships Between Members of the Organization

In the authoritarian paternalistic family, the primary relationship between members is lineal. Indeed, CNR's presidents strongly believe in an orderly succession of employees through hierarchical positions and in the maintenance of a hierarchical order and status differentiation.

The setting up of more collateral relationships were attempted as when a System General Committee was formed to bring officers and staff of all departments and from all regions together to acquaint themselves to discuss problems and exchange views.

However, the effort did not bring the expected results, perhaps because it was never really intended to.

"I think, it would be fair to say", Metcalf (1980) comments, "that the effort was worthwhile as a means of getting the boys together to let off steam and to become better acquainted. But it would be an exaggeration to say that any portentous decisions came out of these meetings. After four or five years, it was decided the plan had served its purpose and it was abandoned (p. 108).

Soon, the "lineal hierarchical" relationship prevailed in the organization. Metcalf (1980) describes such a relationship, as follows:

"Juniors at headquarters, I soon found, were expected to keep a low profile and look up to their superiors with awe and something akin to fear and trembling. (p. 101).

The lineal relationship in the CNR family, is also revealed in the use of status symbols, such as railway cars to differentiate positions:

"CN cars were first known as private cars and were generally assigned to presidents, operating and traffic vice-presidents, with a spare car or two at principal headquarters and at regional headquarters, at Moncton, Montreal, Toronto and Winnipeg. The most modern cars were assigned to the president and vice-presidents at System Headquarters and the general managers of the regions, with the older cars being assigned to general superintendents of districts and to superintendents of divisions. Trainmasters and superintendants did not have private cars. They were expected to ride with passengers on passenger trains and with the crews in cabuses in freight trains to observe at firsthand how things were being done along the line, where supervision was not close or immediate." (Metcalf, 1980, p. 357)

The nature of authority relationships at CNR is vividly and wittily captured in the following anecdote about the practice of buzzing underlings to one's office:

"By the time D. Gordon arrived on the scene, I had become completely immune to any reaction other than to respond to the call by dropping whatever I was doing and reappearing to the inner sanctum. After a couple of days of buzzer silence, I was rather relieved to hear the President, by telephone, bid me to come to his office "when it was convenient to do so". And so, with a single exception, there came to an abrupt end the half-a-lifetime routine of literally beating a path to the door of my superior". This is not a post mortem complaint as buzzing had been a universal custom in high places on railroads and may still be in vogue amongst the less enlightened. Although he inherited a "key board" of buzzer buttons, Mr. Gordon invited associates to his office by telephone. Because he found that I answered my own, he invariably dialed me directly." (Metcalf, 1980, p. 297)

In conclusion, the patriarchal 'family' assumption is an important pillar of the CNR culture. Up to the mid 70's, this assumption, with its overtly expressed instrumental values such as "loyalty of every officer and man to each other", "loyalty to the organization and jealous pride in its reputation", "responsibility of the organization to its members in terms of promotion, career development, present and future security", "lineal relationship as the primary relationship between employees and an

authoritarian-paternalistic leadership style", are mainly shaped by the assumptions and values of the successive presidents of CNR, who, in turn, reflected the ambient society's prevailing standards of conduct. However, it must be stressed that the 'family' assumption at CNR was also fostered to some extent by a number of contingency factors specific to the railway industry. Indeed, a technology characterized by a large percentage of labor costs in operating expenses, a high potential for mechanization and automation of work and a relatively low level of direct supervision, invited the early development of a strong union to defend the rights of a labour force threatened by rationalization and mechanization of work. The existence of a union demanding obedience from its members induced CNR's management to espouse the 'family' concept as a sort of countervailing alternative, as an ideal relationship that must be established between management and workers.

The family concept was to define the nature of organizational life at CNR for much of its history. The twin pillars of public service and family atmosphere may have been chipped at over the years but they remain foundations of CN's definition and *raison d'être*. Stevens (1973) writes about MacMillan (1966-1974) these revealing lines:

"Nevertheless, he [MacMillan] will retain his respect to the dictum of Sir Henry Thornton, voiced half a century ago, that there could be no prouder title than servant of a common cause. He will see that in Canadian National Railway, the family atmosphere and the pride in public service lives on. This residue of loyalty and of community of outlook is no mean possession in a century as palpably poised between yesterday and tomorrow." (Stevens, 1973, p. 501)

#### 7.4 Conclusion

Historical and leadership factors have shaped the character of the CN organization in some ways which are in particular to CN and in other ways which it shares with other large organizations of the same period.

The public service role of CN permeates its decisions and actions throughout its existence. It has been in turn a self-evident fact, an easy excuse for poor financial performance, a conundrum (how to be commercially run and discharge a public service responsibility?), a rallying cry of the union's leadership (as we shall see in the next chapter) whenever pressure is exerted on the size of the work force. The belief that CN is different from CP in this respect, that it has legal obligations arising from its status and charter, is pervasive at all times and at all levels in the CN organization, although subjected to more or less debate and contention at different points in time.

The independence of CN's management from governmental interference was also pursued with zest and vigor throughout CN's history. In fact, a leader's stature is often measured by his capacity to hold Ottawa at bay. CN's heroes and champions are made on the field of battle with politicians of all stripes. Gordon's particular place in the CN rostrum of leaders is due in no small part to his brave, almost cocky, stance in dealing with government's agencies, staff and sundry hacks.

Bandein's appeal and achievements at CN are attributable to his success in getting Ottawa to act in CN's interest, while voicing open contempt for government's ineptness and the shortcomings of its representatives (on CN's board and elsewhere).

The concept of CN as a large family may have resulted from widespread belief about how organizations should function at the time CNR was formed. However, it remains to this day an important principle at CN, which suffuses a host of policies and practices in the field of personnel management and development.

APPENDIX

Anecdotes About Government - CNR Relationships

drawn from Metcalf's Memoirs

"One Man's Word for It: A Travelogue on Fact and Fancy", (1980)

First Story

This incident concerns a telephone conversation between the Minister of Transportation C. D. Howe and the President of CNR, Charles Vaughan (1941-49).

**Howe:** "Hello, Charley" (in his best New England accent-form, the sound was a nasal Maynud, just as plain as that), "I propose to set up a committee to consider priorities for the assignment of materials and space for the manufacture of freight cars and I want Norman Walton to sit on it as the representative of all Canadian railways".

**Vaughan:** "But Clarence, Norman Walton doesn't know about sources of materials or suppliers, nor about the manufacturing capabilities of builders; you want Dave Ford, Vice-President Purchases & Stores, for that assignment".

**Howe:** "I know Ford but I want Walton for this committee".

**Vaughan:** "But Clarence, it would be unfair to ask Walton to take on that chore; Ford's your man".

**Howe:** "Charley, can I have Walton?"

**Vaughan:** "For this assignment, I think Ford would be more useful to you".

**Howe:** "Very well - goodbye!".

"The President expressed astonishment", Metcalf notes, "when the next morning's newspapers carried an announcement by the Minister that W. M. Neal, Vice-President Canadian Pacific Railways had been named to represent all Canadian railways in the deliberation of the special committee".

## Second Story

During early days of the planning for the Queen Elizabeth Hotel it happened that the Minister of Transport Lionel Chevrier on the occasion of a Gordon visit to Ottawa proposed to re-transfer to the CNR Jean-Claude Lessard who had been Deputy Minister of Transport since 1948. It was the Minister's idea, according to Mr. Gordon, that this would provide a convenient pipeline for the day-to-day enquiries by the Minister to a Presidential aide on the CNR currently in touch with railway affairs and having a ready and understanding appreciation of the probable background and implications of departmental enquiries. This is my interpretation of what was proposed for Lessard.

I stenuously objected to the proposal on two principal grounds:

that it would be undesirable to afford any Minister a backdoor approach to the inner establishment; that management should insist upon all departmental enquiries being routed through normal channels; and that if the Minister feels inclined to sometimes make personal representations, let him do so to the President. (Here was an example of the kind of thing that could lead to repercussions at the time of a change in government. If any Minister of Transport had an informal channel of approach to the railway's chief executive's office, a successor of another political colour would expect no lesser accommodation, and anyone suspicious of what had gone before, might easily expect more); (Metcalf, 1980, p. 314-315)



### Third Story

Shortly after the President Donald Gordon had left on a trip to the West Indies, Chevrier telephoned me to say that the CNR should proceed with orders for additional tonnages of Maritime coal to relieve local unemployment under an arrangement discussed whereby the Government would reimburse the railway for extra costs incurred by using such coal beyond its normal area of economic use.

My prior instructions from the President were to insist, as he had, that the Prime Minister give his personal approval, since anything short of that just might result in difficulty when the time came to obtain the confirming Order in Council. When I gingerly enquired about Prime Ministerial confirmation, the Minister explained that these were his instructions to me and when I demurred, he said, "Are you refusing to take instructions from the Minister of Transport?" I replied, "I didn't say that - what I said was I take my instructions from the President. After repeating these exchanges in the same terms once more, I wound end the conversation by saying, "I'll acknowledge my understanding of the arrangement in a telegram to you". I then sent a message in my best legal phraseology, concurred in by the head of the Law Department, containing a stipulation about Prime Ministerial approval. This approval came in Chevrier's acknowledgment of the next day. (Metcalf, 1980, p. 316)

#### Fourth Story

There is another instance of the Governmental officials dealings with CNR and of the typical response they would incite:

On a day early in the fifties with spring in the air, a Minister suggested to Donald Gordon that he would like to take his whole family in his private car to New York City for Easter. The details were left to Frank Collins to work out with me. Under then the current regulations only the Heads of State (and for Canada that meant Mackenzie King) could travel by private car free of charge on United States railroads. The Minister would have to pay a minimum of eighteen first-class fares which was an expense not likely to be included in the departmental estimates of the government. The easy alternative was to have the CNR absorb the expense, but this would have exposed the President to possible future embarrassment.

Hence I decided that some other solution had to be "found". We had reciprocal arrangements with certain US railroads, so I was able to make a friendly one-shot deal to accommodate the Minister without cost to either the government or the CNR. The President may have felt that I was being over-protective of one who was noted for taking care of himself,\* but I could think of a couple of Members sitting in Opposition who were quick to make political capital out of gossip or information seemingly invited, or passed on to them from unauthorized sources. (Metcalf, 1980, p. 317)

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\* Metcalf tells an anecdote, representative of D. Gordon's style of dealing with the government.

I heard elsewhere that the President, at an informal gathering in Ottawa, had given Dief\* a conundrum which was not well received. The president confirmed that the story was more than a rumor. The conundrum was: "What's the difference between a cactus and a caucus?" The answer: "A cactus has all the pricks on the outside."

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\*\* John D. Diefenbaker the ten Prime Minister of Canada.

CHAPTER - 8

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THE DIACHRONIC ASSESSMENT OF CULTURAL AND  
SOCIO-STRUCTURAL CHARACTERISTICS OF CN TO 1976:  
THE INFLUENCE OF CONTINGENCY FACTORS

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## 8.1 Introduction

This chapter will describe some of the contingency factors that may have played a significant role in shaping Canadian National's socio-structural and cultural systems. The Canadian rail industry and market structure, its peculiar regulatory context and political history (including the channeling through the political process of the public expectations and attitudes vis-a-vis the railway industry), the nature of its ownership, the character of its union, the nature of technology, are some of the dominant contingency factors which will be discussed in this chapter.

Some of these contingency factors (i.e. the industry and market structure, and the regulatory system) have changed markedly over time, and their mutations have triggered socio-structural and cultural transformations at CN. We shall deal with these factors first and at length. Other factors identified and studied, such as the nature of technology (high ratio of labor costs in the operations, the level of mechanization and automation, the high ratio of fixed costs, etc.) and the character of unionization in the railways, have been more stable; therefore, their impact has remained quite constant over time, and I address these factors in the last part of this chapter.

An indepth inquiry into the history of the Canadian Railway Industry shows that the life cycle of th industry may be divided in four stages\* with the following time dimensions:

- 1) A growth and shake out period (1875 - 1918)
- 2) A pure railway duopoly era (1918 - 1938)
- 3) An era of dynamic competition under a regulatory system (1938 - 1967)

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\* The stages are identified by the present author.

- 4) An era of dynamic competition under commercial freedom.  
(1967 - 1976<sup>1</sup>)

Each period has its own set of industry and market characteristics which have shaped the Canadian railways across a vast expanse of time.

In this document, the emphasis will be on the last three stages as only during these is Canadian National Railway a significant player. CNR was formed as a railway system only in 1918 and as a judicial entity in 1922; therefore the focus of this research will be on industry characteristics and dynamics from that point on. However, I shall present a brief description of events prior to the birth of CNR.

## **8.2 The Growth and Shake-Out Period (1825 - 1918)**

As is typical of "growth" phase in an industry's life cycle, this period was characterized by the mushrooming of rail companies and by the extension of competitive rail facilities.

At the turn of the century, rail transportation in Canada was offered by several private corporations and by one governmental system. The privately-owned systems included the Grand Trunk, the Canadian Pacific (the only transcontinental in America), and the smaller Canadian Northern, operating in the western parts of the country.

The only publicly-owned railway, the "Intercolonial", was expected to provide at operating costs, transportation facilities from the Maritime Provinces to the rest of Canada, in accordance with commitments made when these provinces joined the Confederation.

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1. Competition under commercial freedom still characterizes the railway industry; the year 1976 is not the end of the era, merely the end of the period considered in this thesis; I decided to stop in 1976 as this is the year when CN Express was formed as an autonomous division. From 1976 onward the CN Corporation's evolution and market are of interest to the present inquiry only in so far as they show an impact on the functioning of the new entity which is CNX.

Concerning this period, Thomson (1938) writes:

Indeed, the period of 1902 to 1918 was one of the most extraordinary times in the whole history of the Dominion. During those eventful years Canada experienced the greatest boom in her history, a boom which subsided, however, with the economic slowing down in 1913 brought about by general world economic conditions, and also contracted a national hysteria about railways, which for the lack of a better term, the author has named the Twin Transcontinental Fever. As a result of the fever, Canada built two additional transcontinental railways, which together, involved annual average mileage increments of 1,500 miles in each and every year during the time the fever raged. (p. 25)

This feverish overbuilding of railways brought two of the great railways - the Grand Trunk Pacific and the Canadian Northern to the brink of bankruptcy and at the door of the federal government bidding for financial support. Faced with such a grave crisis, the federal government appointed in 1916 a Royal Commission (Smith-Drayton-Acworth). Its report, presented in 1917, recommended the nationalization of the Canadian Northern and Grand Trunk railways, and their consolidation with the government owned "Intercolonial Railways", into a single coordinated and unified railway system.

When implemented, these recommendations resulted in the Canadian federal government becoming the owner of 22,000 miles of railways, the largest mileage of any single rail corporation, public or private, in the Western hemisphere. This political action modified the structure which the industry would have otherwise taken. Indeed, instead of a monopoly structure (formed by Canadian Pacific, the only commercially viable railway company at that time) which would have normally evolved, were these companies let to go bankrupt, a clear duopoly situation was fabricated, with CNR, a crown corporation, set up to compete with the privately owned CP.

### **8.3 The Pure Rail Duopoly Era (1918 - 1938)**

This era is characterized by the fact that in much of Canada, only CN and/or CP were available to handle the movement of freight. The structure of the Canadian railway industry during that period is clear-

ly duopolistic with competition between the two railways felt to be insufficient to ensure that railway freight rates would be set at competitive levels. The weak price competition between CNR and CP may be explained by three main factors: (Heaver and Nelson, 1977).

First, the usual oligopolistic pricing behaviour whereby each firm understands that price competition will bring prompt retaliation, the actions of each competitor being easily monitored and having a large impact on the other;

Second, the different geographical coverage, which actually created monopoly conditions for one or the other railway company in many markets, and which acted as a damper on direct price confrontation.

Third, because their high fixed costs and excess capacity, typical of both railways at the time, could have led to ruinous price competition. To avoid this to happen, the Canadian railways have, early on, created mechanisms for agreeing on rates; in other words, for pricing as a cartel.

Dissatisfaction by shippers, communities and regions with the market power of railways brought about comprehensive public regulation of maximum and discriminatory rates and the setting of standards for reasonable and nondiscriminating rates, which standards were to be administered by the Board of Railway Commissioners. The purpose of these regulations, however, was not the elimination of "cartel pricing" by the railways, but merely the prevention of abuses.

### 8.3.1 The Duopoly Industry Structure's Impact on CNR's Structure, Culture and Performance

As a result of the cartelized rate setting and monopoly conditions in some areas where only one railroad was available to shippers, the railways during that period enjoyed a strong market power which is manifest in a rate structure based on "the discriminating principle".

This "principle" refers to the practice of setting high rates, rates above railway variable costs or even above their total average costs, for traffic regarded as having inelastic (or low elasticity of) demand, and low rates, at times as low as their short-run marginal costs, on traffic believed to exhibit a highly elastic demand for transport. In most instances, this translated into high rates for manufactured goods and other high-value goods and low rates on low-grade, bulk commodities and some agricultural products. (Heaver and Nelson, 1977).

The discriminatory pricing system served as the basis for the rate classification system used by the railways during that period of time. This system allowed rates to vary from a low of one-half cent up to as much as ten cents per ton mile and bore little relation to the cost of performing the service. A rate was considered "just and reasonable" if it displayed what seemed to be an equitable relationship to the remainder of the rate structure. This basis for rate setting was actually a form of cross-subsidization under which some users of rail service contributed through higher rates to the transportation bill of others, on a sort of capacity-to-pay-basis.<sup>2</sup>

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2. According to the MacPharson Commission (1961), the discriminating price system was suited a) to the needs of the developing Canadian economy; and b) to the needs of the railways for the maximum volume of traffic consistent with adequate revenue returns. Concerning the first point, it was considered to be a socially efficient pricing system, because it encouraged the traffic of bulk commodities (e.g. coal, grain, ore, potash), financed in part by higher rates imposed on finished goods (ex. clothing, tobacco, hardware, machinery). In other words, without these low rates, a good deal of the bulk traffic would not have moved at all as transportation costs would have been too high in relation to the value of the commodity, whereas finished goods, because of their greater value, could and did move at the higher rates. This in turn, stimulated the development of primary production in Canada.

As to the needs of railways, any competitive pricing other than class rates would have been based on variable (marginal) and average costs. Under the general conditions of excess capacity existing at that time, marginal costs were far below total average unit costs and this would have led to ruinous price competition. Under this rate system, total revenues of railways were maintained at a higher level. (Heaver and Nelson, 1977).

Nevertheless, this system caused bitter regional discontent in Canada, which forced the Turgeon Royal Commission to recommend the equalization of rates in the 1950's.



These peculiar market and pricing conditions have left their imprint on CNR's functioning.

First, it led to the assumption of a considerable degree of control over the market environment as a result of the duopoly situation, a control which could be strengthened by cooperative actions with the competitor, CPR.

Indeed, Thornton, the first president of CNR (1922 - 1931) saw cooperation beyond price setting as desirable for the benefit of both competitors. "He sought an accommodation with his rival CP," Stevens (1973) notes, "whereby frictions might be ironed out without official intervention". In February 1924, an agreement for cooperation with CP was reached.

This assumption continued to be shared by other CNR presidents and its importance is revealed in numerous actions taken. Thus, President Vaughan achieved agreements with CP to cooperate in railway pooling of passenger traffic, planned standardization of some types of equipment, rolling stocks and materials. Under President Gordon, the general practice was for officers of CNR and CPR, below Vice-President level, to meet and discuss traffic problems and make decisions on items of joint interests. Incumbent Vice-Presidents and key officers of CNR and CPR had meetings at intervals to consider agenda prepared in advance. (Metcalf 1980)

The high degree of control over the market environment CNR enjoyed under the duopoly conditions and cartelized rate setting, did not preclude however the existence of some intramodal competition, both in rates and service and a permanent feeling of hostility and competition between the two systems. Heaver and Nelson (1977) and Metcalf (1980) report such cases of rate competition between CNR and CP, especially when one of the railways enjoyed only a small share of shippers' traf-

fic and attempted to correct the situation. Several supporting anecdotes told by Metcalf (1980) in his memoirs, are offered in the appendix to this Chapter.

A second critical assumption of CNR emerged during this period as a result of industry characteristics: revenues for commercial viability are dependent upon regulatory decisions and orders. Indeed, according to Heaver and Nelson (1977), comprehensive and restrictive railway regulations strongly encouraged a heavy reliance by railways on general pricing by "horizontal percentage rate increase" or the "across-the-board pricing method" to raise needed revenues.

Such a pricing behaviour meant a relative disregard for prevailing economic conditions of commodity demand and competitive factors in particular markets. Although some adjustments were typically included by the railroad and the regulators to reduce the differential impacts on shippers in competitive situation located long distances from their markets, general across-the-board price increases gradually priced the railways out of many markets.

This assumption coupled with a belief in "a high degree of control over its market environment" account, to a large extent, for CNR's lack of responsiveness to the new competitive conditions that began to characterize the Canadian transportation markets in the mid-1930's. A strong sense of immunity and indispensability at CNR dimmed awareness of differences between the short-run and long-run price elasticity of demand. The self defeating reliance on general rate level increases was only ended with the rate-freeze during the investigation by the MacPharson Commission (1959-60) and by the enactment of the National Transportation Act in 1967. (Heaver and Nelson, 1977). This pricing practice contributed in no small measure to the growth of the trucking industry in Canada as a viable competitor to the railways (Friedlander, 1969).

A third assumption seeping into the CNR organization under those circumstances and at that time was, to put it perhaps too bluntly, that **cost concern and knowledge are not requirements for survival and success in railway operations.**

The procedures to set and modify rates reflected the hard fact that decisions about general level of railway rates were political rather than economic; the heavy debt burden imposed on CNR precluded any reasonable hope of commercial viability; these factors then tended to minimize the importance of cost knowledge and control.

Indeed, the main charges levied against Sir Henry Thornton in 1928, by the Party in Opposition, concerned extravagant expenditures made for the extensions of new, uneconomic lines, acquisitions of hotels, duplication of services, bridges and steamship lines.

According to Stevens (1973), many charges were politically inspired and the Duff Commission (1932) reports that a huge number of expenditures were the result of public pressure and political influence. Nevertheless, Stevens admits that "financial" preoccupations were not a first priority with the CNR management.

"Unfortunately, there were gaps in this inner circle, and one missing member was what Thornton needed most - a tough-minded, down-to-earth financial adviser. He had had little experience of railway finance either in the United States or Britain, and in coming to Canada he had accepted the management of a vast enterprise that had been born with a black caul in the form of a monstrous load of debt. With no sturdy sentinel to guard it as Walter Thompson guarded public relations, as Starr Fairweather watched over company policy and as Ned Brooks supervised technological developments, the financial organization remained exposed and vulnerable, and its lack of defenses was destined to haunt Thornton throughout his Canadian career". (Stevens, 1973, p. 319)

However, the contingency factor that accounts most directly for the emergence of this assumption, is the nature of CNR's ownership. As a government-owned company, CNR although technically bankrupt since its formation, never lacked funds, provided by government at low rates, for expansion.

A pertinent illustration is CNR embarking upon a program of vigorous passenger competition with CPR in the years 1928 - 1929, on the basis of unlimited and cheap funds supplied by the Canadian government. The purpose of this action was not the creation of any major new business (passenger business was already declining in North America) but the taking of passenger traffic away from CP, by offering additional, luxury services.

Another supporting example is provided by the government's uneven treatment of the two systems with respect to loans to the railways for the repairs of equipment. The following statement of the Minister of Railways (Mr. Manion) before the Railway Committee of the House of Common, is revealing:

"They (CNR and CPR) are both in the same position; except that they are not in the same position in regard to repairs. On repairs, whatever we lend to the Canadian Pacific for the purpose of making repairs, they give us something in the shape of notes promising to pay the money back. So far as the Canadian National is concerned, it was found, or was so advised by the legal officers of the Canadian National Railway, that they could not charge up to deficit either repairs or interest on repairs. Therefore, we took the power in one of these amendments which I made, to give them the repairs so far as they are concerned. In other words, if they carry out these repairs they will not be charged up as a deficit, it will merely be paid by the Government of Canada; it will in a sense be a gift to the Canadian National Railways". (Minutes of Proceedings and Evidence No. 5 of the Standing Committee on Railways and Shipping, Tuesday, May 28, 1935. p. 193).

Thomson accurately comments on the direct relationship between "the nature of ownership of a firm" and its orientation vis-à-vis costs and profit:

"In the present system of society, it must never be forgotten that a private corporation, must earn profit and cost must have a real and strict definition. Indeed, if the various elements of true cost are not met by the revenues, a private enterprise goes bankrupt sooner or later. But when a government enters into business competitively, such rigorous considerations are rarely completely present, and the fear of bankruptcy does not exercise its restraining and educative influence". (Thomson, 1938. p. 291).

Finally, a most tangible manifestation of the assumption that "cost concern and knowledge are not requirements for CNR's survival in the railway business" was the absence of any chartered accountant on the Staff of CNR as late as 1950. As Metcalf (1980) puts it, "Mr. Gordon was quick to note that there was not one chartered accountant on the staff of the railway, so he hired one" (p. 301).

Under these conditions and because of several other contributing factors, discussed in Chapter 7 under CNR's genesis, CNR, up to 1938 and with two exceptions (1926 and 1928), had not been producing sufficient revenues to cover its operating expenses (Table 8.1).

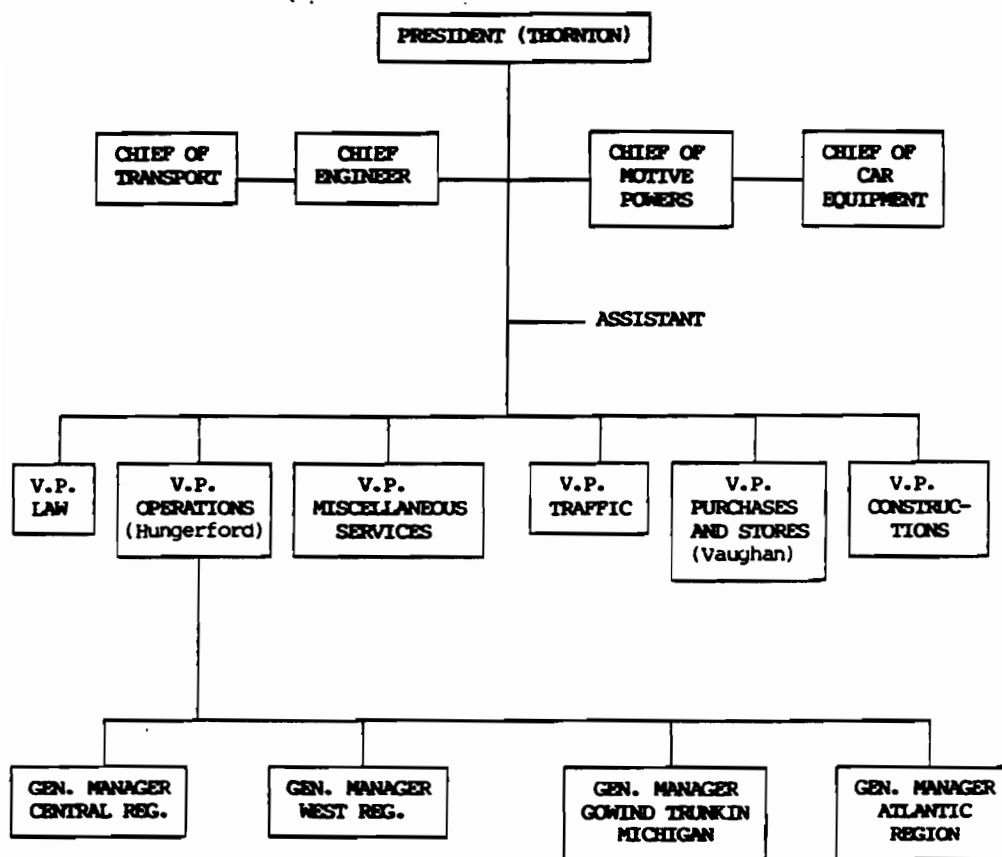
In spite of these financial results, CNR was at that time pursuing a vigorous policy of expansion. Indeed, "between 1922-1931, CNR, although losing money at the rate of \$20 million annually (with no allowance for annual interest rates on money advanced by the government) was at the same time spending \$50 million each year on new capital expenditure in the hope of ultimate improvement in its operating efficiency". (Thomson, 1938, p. 8)

### 8.3.2 The Organizational Structure

These industry characteristics and resulting assumptions are also reflected in the organizational structure of CNR at that time. (Fig. 8-1).

A very centralized type of structure, organized by functions and strongly dominated by operations. An important criterion of selection for Vice-President Operations was experience in the Mechanical Department.

Market intelligence and costing were little developed, as it can be seen from the absence of a Marketing and Finance function and of their corresponding Vice-President. Technological progress is given high priority. The department of motive power and car development is strong and well staffed with "good engineers". (Stevens, 1973).

FIGURE 8-1CNR'S ORGANIZATIONAL STRUCTURE (1922-1932)

Source: Metcalf (1980) p. 98.

TABLE 8-1

**CANADIAN NATIONAL RAILWAYS - WHOLE SYSTEM**  
**ANNUAL CASH INCOME DEFICITS (OR SURPLUSES)**  
**INCURRED 1922 - 1936**

	<u>AMOUNT<sup>1</sup></u>	<u>PER MILE OF ROAD</u>
1923	(\$21,539,731)	(\$988)
1924	(23,589,376)	(1,307)
1925	(9,994,383)	(455)
1926 Surplus	2,389,009	106
1927	(4,200,678)	(159)
1928 Surplus	2,638,900	118
1929	(13,408,704)	(593)
1930	(35,585,894)	(1,507)
1931	(60,689,795)	(2,561)
1932	(61,006,919)	(2,566)
1933	(60,017,713)	(2,527)
1934	(49,506,695)	(2,091)
1935	(48,878,182)	(2,106)
1936	(43,197,346)	(1,833)

Source: L. Thomson, The Canadian Railway Problem, Macmillan Co., Toronto, 1938, p. 11.

- <sup>1</sup>. These amounts do not include interest on loans and advances from the Federal Government nor do they include any interest on capital invested in CNR.

CNR structure includes from early on a Traffic Department, the main function of which was the setting and quotation of rates. As it appears, the rate setting was highly centralized.

The emergence of trucking competition in the mid-30's led to the establishment at CNR of a Research Department. Although initially this department was created to carry out operations research studies, with time it started providing costing and industry studies, to examine the profitability of various types of traffic and analyze traffic potential and transportation needs of various industries. The Personnel Department was not very developed (8-10 persons) to whom the pressure of day-to-day problems and recurring wage negotiations left no time for long-range planning in terms of resource development. Rates of pay of all organized groups of employees were fixed by wage agreement.

Others, not so covered, but performing similar work received corresponding benefits by recommendation of the wage bureau. Senior executives looked to the President for salary increases. Metcalf (1980).

The importance of the relationship with the government and other pressure groups is evidenced in the existence of a Bureau of Economics at CNR, staffed with excellent officers, whose duties were "to run interference for their chief with the politically minded and with the local patriots". (Stevens, 1973, p. 101).

### **8.3.3 Conclusions on the Pure Railway Duopoly Era**

The conditions of the pure duopoly era in the railway industry in Canada, have led to the development at CNR of a set of assumptions which affected its behaviour in those years and long afterwards:

- CNR has a high degree of control over its market environment;
- Revenues for commercial viability are dependent upon regulatory decisions and orders;



- Cost concern and cost knowledge are not prerequisites for survival and success in railway operations;

In terms of organizational structure, the duopoly conditions along with other factors such as the specific technology of the railways and the tradition of organizing in the North American railway industry, fostered a highly centralized corporate structure, organized by functions and dominated by operations.

#### **8.4 The Era of Dynamic Competition Under a Regulatory System (1938-1967)**

For much of the Canadian territory, railway services were available only from Canadian National Railways and Canadian Pacific Railways. (Purdy, 1972). However, for a number of points, only one railway service was available to shippers, while, in certain regions, a third railway operated lines, such as BCR in British Columbia or Ontario Northern Railway in Ontario. For all intents and purposes, however, the railway industry still operated under duopoly conditions during the period.

Beginning in the mid-30's, the competitive situation in the railway industry begins to change radically as a result of trends in three areas:

- intramodal competition, which is the competition between railways, the nature and intensity of which changed rapidly during the period.
- general market competition, which limits the value added of transportation service to the relative prices of alternate sources of supply of a particular commodity; in other words, the competitive posture resulting from the delivered price (including transportation costs) of a commodity and that of its substitutes.
- intermodal competition, resulting from the development of new modes of transportation, in particular, trucking.

a) Intramodal Competition

Despite how few railways there were in the market and their tendency to consult and agree on rates, much competition between railways actually took place especially by way of coverage and service rivalry. Railways continued as before to act independently on car supply, freight schedule changes, terminal and car investments to assure shippers adequate service. Price competition also tended to increase as compared to the previous period, for two main reasons: (Heaver and Nelson, 1977)

- 1) the emergence of substitute modes of transportation and the ensuing threat of losing traffic to intermodal competition resulted in a lessened interest in price collusion and more vigorous price competition between railways;
- 2) a higher level of capacity utilization narrowed the gap between total average costs and marginal costs. This smaller difference between average and marginal costs provides an incentive for selected price competition on specific lanes and during particular periods without the risk of an all-out, across-the-board, price war.

b) General Market Competition

Market competition refers to product substitution and source substitution which puts pressure on the prices of railway services and poses a tangible threat of permanent volume erosion. (Heaver and Nelson, 1977).

Market competition manifests itself as:

- i) Competition among different producers for a common market, such as the competition of Canadian products in world markets

(e.g. coal from Eastern British Columbia and Western Alberta, sulphur from Alberta and potash from Saskatchewan).

ii) Market competition from American products imported into Canada

For example, the availability of automobiles, chemicals, and food-stuffs from California and other Western States has influenced the level of railway rates in Western Canada; the influence of water-born imports of sulphur and potash from the Gulf of Mexico on the railway rates for the same products moving from Western to Eastern Canada.

iii) Market competition among Canadian producers in the domestic market:

An example is the competition between Eastern and Western processors of imported sugar in the Manitoba market.

iv) Market competition through alternate locations:

For many firms which compete in a common market but have different plant locations and distribution systems, negotiations involve market competitive arguments. An instance of this situation is provided by the following case: initially, petroleum-based products such as grease and lubricants were shipped to Alberta from Eastern Canada, under an agreed charge established in the mid 1950's. The growth of the Western market led some firms to locate processing plants in the West, e.g. Imperial Oil in Edmonton. This placed other suppliers under increased competitive pressure to move their products at relatively low rates or to establish new plants in the West.

v) Market competition through alternate markets and sources of supply:

Without changing the output of a plant, a firm may be able to shift its sources of supply or markets away from those served by

the rail carrier(s) with whom the shipper is negotiating. For example, some petroleum-based products produced in Alberta can be shipped either to Eastern Canada or exported via Vancouver. If the eastbound freight rates are too high, it is more efficient for the Western plants to use the shorter westbound route, perhaps using rail or truck to serve the export markets.

"The constraint on railways' rates through the possibility of losing traffic through market competition is as real as the constraint of losing traffic for any other reason". (Heaver and Nelson, 1977, p. 132).

c) Intermodal Competition

During the 1930's, other modes of transportation began to impact on the railways' share of business, measured either in ton or ton-miles, or in the dollar value of business handled. An assessment by CNR concluded that in the period 1930 - 1935, traffic valued at \$54 million had been lost to the highway carriers, which meant that they had taken about 4 billion ton-miles away from the railways.

"As road transport facilities multiplied", Stevens (1973) notes, "many of the branch lines began to feel the pinch, and the railways let it be known that should the trend continue, it might be necessary to close them". (p. 369)

Passenger traffic was badly hurt, in the short and long-haul by the private motor car, the bus transportation companies and by air transport. Indeed by the end of the 1960's, the motor car accounted for 85% of Canadian passenger traffic; of the remainder, the railways' share stood at only 3%. (Stevens, 1973, p. 361)

According to Darling (1982), two factors are mainly responsible for the sharp loss of traffic to the highways during the 1950's. "First is the railway strike of 1950, which had a traumatic shock effect upon users of transportation and may be said to have given an impetus to highway transport that was lasting in effect." (Darling, 1982, p. 190). Second is the completion of the TransCanada Highway which made possible effective rail-truck competition nationwide.

#### 8.4.1 Railways' Response to Intermodal Competition

Competition from alternative modes of transportation of merchandises was a dynamic new development in that era. Despite the fact that competitive offerings were far from homogeneous in terms of speed, off-route pick-ups and deliveries, care of shipments, on-time service, reliability and schedule frequency, in the real world, there was high substitutability among them.

The railways responded to intermodal competition in three ways:

- a) By offering similar services. As early as 1933, CNR began to hire local truckers to pick up and deliver its LTL, and, where local facilities were not available, CNR installed its own. The experiment was successful at least at the beginning. At that time, to compete with competition coming from various American air companies, CNR and CPR induced six small airlines in Eastern Canada to merge and to link up with a local service in Western Canada, then bought substantial holdings in the merged company which was named Canadian Airways Limited.
- b) By introducing intermodal developments such as piggy-back and containers to recover some of the high-paying general merchandise traffic the railways had lost to the trucks. Much traffic of this type developed, but according to Darling (1982), the intermodal

picture was blurred by the railways' ownership of trucking lines. This ownership led the railways to opt for a highway-type solution (with all the problems to be discussed in the specific case of CN Express in a later chapter) rather than for a true, efficient, intermodal operation with the attending to the control and operating complexities of such an undertaking.

- c) By offering lower rates to accommodate shippers who claimed to have alternative modes of transportation at their disposal; in short, to offer rates competitive with those of the truckers and other modal carriers. But this required that public regulations do not impose differential public-service burdens on the railways nor subject them to restrictive regulations of their competitive rates as compared with other modes.

#### 8.4.2 The Regulatory System

Despite increasing competition in the Canadian transportation market during the period 1938 - 1967, the widely held view was that intramodal and intermodal competition (market competition was not even perceived as a source of control on railways during that period) were insufficient to insure that railway freight rates would behave competitively and equitably. As a consequence, it was felt that public regulations of railways, particularly regulation of maximum and discriminatory rates, continued to be required.

This period, from around 1938 to 1967, may be aptly described as "the era of dynamic competition under a regulatory system". It is important to stress, however, that the existing regulations did not severely hinder the railways' flexibility in meeting intermodal or market competition. As early as 1903, the Canadian railways had been authorized to use competitive rate flexibility in meeting intermodal competition without being subject to rate suspension or delays in making the rates effective.

Indeed, the Turgeon Royal Commission (1951), which studied numerous judgements of the Board of Transport Commissioners going back as early as 1910, concluded that the Board disallowed a railway competitive rate only when it resulted in unjust discrimination against some shippers. To further support the railways' ability to act competitively the Turgeon Commission recommended the rejection of a proposal that the Board should approve competitive railways rates before they became effective, on the ground that this "would hamper the railways in their efforts to increase their revenue". (Turgeon Commission, 1951, p. 86)

Furthermore, in 1938, the Canadian Government had allowed railways to meet the growing intermodal competition from road, pipeline and water carriers by negotiating "agreed charges"<sup>3</sup> with shippers, with loyalty provisions that insured the railway all or a given percentage of a shipper's business for a year, under conditions protecting the shipper against rate discriminations as a result of an agreed charge.

These "agreed charges" were a tangible proof that the Canadian Government recognized that the use of "competitive rates" did not provide sufficient leverage (and protection) to the railways in competition with trucking firms.

Thus, Commissioner Turgeon in the Report of the Royal Commission on Agreed Charges, 1955, p. 13, states to this effect:

"The Railways point out that Parliament enacted this agreed charge legislation in 1938 for the express purpose of helping them to cope more effectively with carrier competition, especially truck competition, which was making serious inroads upon their business by methods which they themselves were prevented from following by the restrictions of the Railway Act. The record shows that this new practice has been of valuable assistance to the railways."

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3. An agreed charge contains a rate or rates agreed upon by a carrier for the transport of all or any part of the goods of any shipper or group of shippers.

Additional support and flexibility in meeting intermodal competition with agreed charges was granted to the railways on the basis of the findings and recommendations of the second Turgeon Royal Commission (1955).

To remove the delays resulting from agreed charges having to be approved by the Board, legislation was passed to eliminate the requirement of the Board's prior approval and to allow an agreed charge to become effective 20 days after the date of filing with the Board (to take place within seven days after the agreement was made). (Ibid, p. 35-38)

Thus, the Canadian railways enjoyed almost complete freedom under Canadian regulations to offer rate reductions to meet their intermodal competition. In addition, they could resort to the "agreed charges", which bound to a railway company for an agreed period, a contracted amount of the traffic of a shipper or group of shippers, in return for lower contract rates. Thus, railways were able to promptly engage in price competition with other modes, and in addition, to temporarily protect the traffic given the low competitive agreed charges from further diversion by other modal carriers' retaliatory price reductions.

Before attempting to identify changes that might have taken place in CNR's way of thinking and operating as a result of these structural modifications in its environment (i.e. transition from a closely regulated duopoly situation to dynamic competition, under a more flexible regulatory system), a short presentation of the Canadian railway rate structure may be useful to a better understanding of the railways' behavior and response to their environment.



### 8.4.3 General Types of Railway Rates

The Canadian railway rate system is not simple. As the Turgeon Commission pointed out (1951), the very responsiveness of freight rates to heterogeneous conditions created a complex structure and array of freight rates.

The following presentation of the Canadian railway freight rate categories is based on Heaver and Nelson (1977), who provide an extensive documentation on that subject.

There are five main categories of freight rates:

- a) A Class Rate, which cover rates for all shipments between any two points in Canada served by the railways. The traffic in this category moves under the Canadian Uniform Class Rate Tariff (except in the Maritime region where special tariff provisions apply). These rates provide a general rate structure for all commodities and shipments and represent the ceiling for railway rates.
- b) A Commodity Rate, is a type of rate adopted by the Railway Act of 1951 replacing the 1903 Railway Act's "special freight tariff". "Commodity rates" are the subject of negotiations between railways and shippers and are designed to enable producers to meet competitive conditions in the markets for their products. The full term used to describe these rates is "non-competitive commodity rates". The railways call them "normal commodity rates"<sup>4</sup>. Low-value bulk commodities move generally under these rates, which are set with an eye on what was earlier called "general market competition".

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<sup>4</sup>. Railway Freight Rates, A Source Book (Montreal: CN and CP, 1973)

- c) Competitive Rates, which are often set through negotiations between railways and shippers, differ from the second category in that they are established by the railways to meet competition from other modes of transport.
- d) An Agreed Charge, a type of rate introduced by the Transport Act of 1938, refers to a rate agreed between the railways and shippers either for an agreed period of less than a year or for at least a year after which time either party may withdraw on 90-day notice. Agreed charges are mostly used by railways to meet inter-modal competition, although they can be employed under any market condition.

Two more points are of interest concerning these agreed charges. First, the fact that the CTC (Canadian Transportation Commission) may set rates for shippers judged unjustly discriminated against by agreed charges<sup>5</sup>, and, second, the provision that under an agreed charge, the shipper is obliged to provide a stated percentage of his business to the railways.

- e) Statutory Rates, which were introduced first by the Railway Act of 1922, to resolve the dispute over the application and implication of the Crows' Nest Pass Agreement of 1897.<sup>6</sup> The 1922 Act decreed that the Crows' Nest Pass Rates apply to "all such traffic moving from all points on all lines of railways west of Fort William to Fort William or Port Arthur over all lines now or hereafter constructed by any company subject to the jurisdiction of Parliament" Decisions by the Board of Transport Commissioners and some voluntary extensions by the railways have extended the Crows' Nest Pass rate levels to apply to about one fifth to one

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5. Canada Transport Act 1935, Part IV, Section 32/10.

6. The Crows' Nest Pass Agreement is an agreement between CP and the Federal Government through which CP agreed to reduce rates on "settlers effects", grain and flour by 3 cents per 100 lbs and maintain that rate "hereafter" in return for a subsidy of \$3,4 million for building a line through Crows Nest Pass in the Rockies.

third of the ton-miles of domestic carload traffic. Other statutory rates were decreed to cope with special circumstances in the Maritime Provinces and Newfoundland (The Maritimes Freight Rates Act of 1927).

#### **8.4.4 The Impact of the Railways Industry Structure Between 1938-1967 on CNR's Culture and Structure**

The appearance of new competitive forces within the Canadian transportation market were associated with an increased commercial freedom given to the railways to respond to, and cope with, competition.

The railways, in order to survive, did evolve away from the structure (policies, procedures, organizational design) and culture characteristic of the era of effective railway duopoly. They basically resorted to three modes of response in dealing with this new competitive environment, as we have indicated earlier:

- i) the offering of similar services (i.e. trucking and airway services);
- ii) the development of intermodal services (i.e. piggy-back and containers); and
- iii) the setting of lower rates and the adoption of rate tactics to compete effectively with the new competition.

The first mode of response, which was tantamount to entering into new lines of business (although it was not clearly perceived as such), represents the very theme of this thesis. We shall deal with the issues and impact it brought about in subsequent chapters. As for the second mode, the development of intermodal services, it was not pursued very energetically during this period. Introduced in the early 1950's,

the piggy-back and container systems were conceived as a competitive measure to recoup some of the traffic lost to highway transportation. However, as stated earlier, these systems were not developed to any great degree, in large part because of CNR's decision to enter the highway transportation field at the same time.

The third mode of response, rate actions, was used intensively during that period, and as such constitutes a departure, a profound change in the ways of operating and thinking characteristic of the era of railway duopoly. The modifications brought about by changes in industry characteristics during the period 1938 - 1967 are the focus of the next section.

#### **8.4.5 Rate Actions as a Tool Against Intermodal Competition**

As a response to intermodal competition, CNR and CPR resorted increasingly to "agreed changes" and "competitive rates". Needless to say, these measures were not taken to further intramodal competition, as the Transport Act requires an agreement in writing between railways, or joint participation by competing railways, before an agreed charge can be made to, from or between competitive railway points.<sup>7</sup>

The increased use of "agreed charges" in the railway business is well captured by a comparison of their number in effect, at the beginning of the period (i.e. 3 in 1939 and 1,545, in 1967)<sup>8</sup>.

These "agreed charges", even though authorized since 1938, were used extensively only after 1955 as intermodal competition really started to dent railway volume. In addition to increased trucking competition in the mid-1950's after the completion of the Trans-Canada Highway, two other factors might explain the increased number of agreed charges in use after 1955:

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7. Canada Transport Act, Part IV, Section 32 (2).

8. Records of Canadian Transport Commission.

- 1) The difficulties and delays encountered by railways in obtaining authorizations for such agreed charges from the Canadian Transportation Board, prior to 1955. On the recommendation of the Royal Commission on Agreed Charges in 1955, amendments to Sections 32 and 33 of the Transport Act were made so as to eliminate the requirement of prior approval by the Board and to shorten the period before agreed charges would become effective.
- 2) The lag in adjusting to external changes on the part of large organizations accustomed to operate under the assumption of "a high degree of control over market environments". This factor also accounts for the infrequent use of agreed charges in the period 1938 - 1955.

Whatever the reasons, the delays in adjusting to changed market conditions had clear effects upon CNR's performance. Its 1958 annual report states: "Our record for the year illustrates the vulnerability of Canadian National Railways to shifts and challenges of a highly competitive transportation market". The first section of the 1959 report summarizes the results of that year as "most disappointing".

These new competitive pressures brought about major but gradual (even belated) changes in the operating characteristics of railways. Evidence of the railways' adjustments to the new competitive conditions, is provided by the examination of railway traffic by rate category for two non-consecutive years: 1951 and 1963 (Table 8-2).

In 1951, "class rates" accounted for 22% of rail revenues, non-competitive rates for 53%, and competitive rates plus agreed charges for only 13%. In 1963, the percentages were 5%, 32% and 51% respectively. These data indicate a move toward a more competitive stance, whereby railways establish mutually acceptable rates with shippers, adjust to the realities of intermodal competition and seek

TABLE 8-2  
DISTRIBUTION OF TRAFFIC BY RATE CATEGORY  
1951 and 1963

	<u>CLASS</u>	<u>COMMODITY</u>		<u>AGREED CHARGES</u>	<u>STATUTORY</u>	<u>MIXED</u>
		<u>Non-Compe-</u>	<u>Compe-</u>			
		<u>titive</u>	<u>titive</u>			
<u>Millions Ton-Miles</u>						
1951	29	169	28	3	79	4
1963	8	124	62	77	141	-
<u>% of Total Ton-Miles</u>						
1951	9%	54%	10%	1%	25%	1%
1963	2%	30%	15%	19%	34%	-
<u>% of Total Revenue</u>						
1951	22%	53%	10%	3%	10%	2%
1963	5%	32%	26%	25%	12%	-

NOTE: The Waybill Analysis of one percent sample of carload traffic.  
The sample figures are reported here.

SOURCE: Canadian Transport Commission, Waybill Analysis, 1951 and 1963  
(Quoted in Heaver and Nelson, 1978, p. 33).

profitable traffic. It is generally recognized that the railways have been successful in retaining or capturing traffic through the employment of competitive rates and agreed charges (MPS Associates Ltd., Canadian Transport Commission, 1973).

However, as shown in Table 8-2, 32% of total railway revenues in 1963 still resulted from traffic at non-competitive rates (usually bulk commodities), which indicate that a significant market power was still held by the railways as these non-competitive rates were not set on the basis of intermodal competition. Nevertheless, Heaver and Nelson (1977) argue that these rates are constrained by the threat of losing traffic because of "market competition", which is as real and effective as direct or intermodal competition.

Heaver and Nelson acknowledge, however, that the basis on which the railways set rates when the only constraint is "market competition" is quite imperfect and may result in the railways being unresponsive to "captive shippers"<sup>9</sup>. The way CNR went about setting a rate or service in the case of "captive shippers", is explained by President Gordon, of CNR to committee hearings of the House of Commons in 1966:

"...if a particular shipper - let us say he is a manufacturer, comes to you and says, look, I have to reach Chicago, and I am meeting competition in the Chicago market, and on the basis of my costs of production and so forth, I cannot stand your freight rate. Well then we will sit down and we will analyze that and find out what our own costs are, and we can then determine whether or not we can temper the wind to the shorn lamb, if you want to put it that way, and give him a rate that will show us a profit but which will enable him to meet his market competition. (p. 1,773)

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<sup>9</sup>. Shippers who do not have at their disposal alternative of transportation other than rail.

However, some shippers expressed a different view concerning the responsiveness of railways. Mr. Whittaker, the Manager of the Coal Operators Association of Western Canada, stated:

"...when we first started to develop the competition of oil and gas and we had discussion with the railways about lower freight rates, and because the railways would not move, for reasons best known to themselves, we lost the business. After we lost the business, the railways told us that they would be prepared to do something. We have had some actual concrete experiences where we have lost substantial business just by this attitude." (Ibid, p. 2,151).

The issue is controversial and we can only conclude that CNR has shown sensitivity to "market competition" arguments when shippers concerned could effectively show that they had alternative modes of transportation at their disposal. However, for truly "captive shippers", it seems that the inherent difficulty of evaluating the tangible impact of "market competition" led to the railways continuing to exercise their monopoly power in setting commodity rates for substantial volumes of rail traffic in Canada, particularly for raw materials moving in bulk. We may state therefore that the "assumption of a high degree of control over the market environment" still persisted to a significant extent at CN by 1967.

#### **8.4.6 The Significance of Cost Factors**

When rates are increasingly set on a competitive basis rather than on the basis of the varying elasticity of demand of different categories of shipments, it should lead to a closer match between rates and costs of specific services.



Indeed, starting in 1956, the railways' pricing practices have been shown<sup>10</sup> to be responsive to cost levels and competitive prices in all parts of the country (with the exception of statutory rates of course). The evidence strongly suggests that the formerly held assumption that cost concern and knowledge are not prerequisites for survival in the railway business loses ground at CNR with the increase in competitive forces. As Heaver and Nelson (1977) found out in case studies, the railways did err sometimes in the setting of their rates. But not as might have been expected, by setting monopoly prices. They rather agreed to uneconomically low rates in relation to calculated or calculable costs, because of the railways' reliance on historical (instead of replacement) costs of assets.

However, the main reason for the maintenance of uneconomically low rates came from the statutory rates and passenger traffic imposed by government for public policy reasons. To a large extent therefore, another assumption shaped by the industry structure in the duopoly era continued to exist and manifest itself in the period of dynamic competition as late as 1959: revenues for commercial viability are dependent upon regulatory decisions and orders. Indeed, the overt expression of this assumption, the "across-the-board pricing method" has been employed by CNR to raise revenues, meet cash flows and other financial needs, until 1959, when the practice was ended by the rate freeze imposed during the investigation of the MacPharson Commission (1959 - 1960).

Only during the 1960's did the railways fully realize that excessive reliance on horizontal rate increases had resulted in the loss of high-yield traffic, especially high value manufactured goods, to trucking. Such losses of profitable traffic undermined CNR's performance.

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10. Research carried out under the direction of Dr. Trevor D. Heaver by S.D. Shepherdson and T.H. Oum, graduate students at the University of British Columbia based on a statistical analysis of Waybill data, concluded that railways set rates increasingly on a cost basis over the period 1956-1972. (Heaver and Nelson, 1977).

#### 8.4.7 Changes in the Organizational Structure of CNR

CNR recognized in the late 1950's that responsiveness to market forces required a reorganization of its structure. The changes started with the establishment of a new Traffic Research Department to provide information and support to marketing activities, on the basis of internal accounting data.

"The new Traffic Research Department, was expected to perform marketing functions in a more formalized fashion than previously and to study ways and means to facilitate competition with other transport modes, mainly trucking, by differential competitive pricing techniques and by improved services. Contemporaneous technological developments in yard operations, diesel locomotives, rolling stock and communications, and the development of more sophisticated costing techniques, were important. The railways were viewing their services as merely one component of shippers' distribution systems so that service level was recognized as being potentially of more importance to shippers than rates, at least in the case of high-value goods". (Heaver and Nelson, 1977, p. 65)

This new marketing emphasis at CNR meant a gradual change towards more flexibility in dealing with competitive forces, more price and service responsiveness. More fundamentally, it meant the beginning of a long process of change in three important assumptions resulting from the regulated duopoly era: "the high degree of control of CNR over the market environment", "CNR revenues for commercial viability are dependent on regulatory decisions and orders", and "cost concern and knowledge are not important prerequisites for survival in the railway business".

At the structural level, apart from the addition of the Traffic Research Department, it led to a major process of decentralization. The existing management structure, which had consisted of four regions, ten districts and thirty-one divisions, all under centralized control, was abolished in 1961. It was replaced by five regions and eighteen management areas, to which nearly all functions, were entrusted. Indeed sales traffic, now called the Sales Department, and Operations were decentralized at the regional and area level.

Responsability for Sales and Revenues as well as for costs, operations and Maintenance were delegated to the five Regional Vice-Presidents and under them, to the eighteen Area Managers. As set out in the 1960 Annual Report, the Regional Vice-Presidents were expected to advise Head Office on such matters as rates and tariff-setting techniques and on the value of specialized types of equipment. They also were to forecast traffic volumes, to set sales objectives and to plan market development.

To change mentalities and to assist regional and area managers in implementing this marketing orientation, a System Freight Sales Program was introduced in 1962, followed by Marketing and Distribution Seminars for senior personnel. In 1963, a Customer Research Service was set up. Personnel policies were also adapted accordingly:

"The upgrading of personnel has been also achieved by the railways recruiting more widely and more highly educated employees, including university graduates, for sales and marketing functions and by increasing the general promotion potential for persons in the marketing field." (Heaver and Nelson, 1977, p. 72)

Concurrently, President Gordon decided to give a new image to CNR, to restore its significance and role in the eyes of Canadians. To this end, he adopted a new corporate trademark, which "was an attractive monogram in the form of the elision of the letters CN, that swam endlessly forward, as a symbol of the manner in which Canadian National Railways covered its territory". (Stevens, 1973, p. 455).

#### **8.4.8 Conclusions on the Era of Dynamic Competition under a Regulatory System (1938 - 1967)**

The changes taking place in CN's culture and structure during that period were brought about by radical changes in its environment. The conditions of dynamic competition that started to characterize the Canadian freight market in the late 1930's provoked a number of changes in the regulatory system in order to equip the railways with the means to cope with the new competitive forces.

It took almost 20 years for the railways, and for CNR in particular, to fully adjust to the new structural conditions in the industry. This delayed adaptation of external strategy to market environment is one of the main causes of CNR's poor performance between 1938 and 1959.

In the early 1960's, CNR started taking actions that indicate a growing awareness of changes taking place in the environment and a resulting change in the assumptions that had been underlying its operations. The overt expressions of the changes are:

- 1) the practice of across-the-board increases in freight rates as a method of raising needed revenues is replaced by more flexible and selective pricing measures;
- 2) the reduced importance of class rates, the increasing rate of competitive rates and agreed charges, which are sensitive to intermodal competition;
- 3) and the general tightening of the relationship between freight rates and costs.

Old assumptions, a residue of the pure duopoly era, are assaulted and challenged by external realities and slowly give way to a new worldview which may be described as follows: CNR is vulnerable to intermodal competition, commercial viability is dependent upon CNR's adjustments to specific market conditions, cost control and expertise are important prerequisites for survival.

A new more competitive stance led to changes in organizational structure, in the establishment of more formalized marketing activities and of a drastic process of decentralization that brought the responsibility for both revenues and costs down to the level of regional and area management. These competitive and organizational changes and the slow but effective changes in assumptions and values at CNR, translated in a considerable improvement in performance. In the period 1955-1969,

freight handled by CNR increased in volume by more than 50% and its annual earnings in that period rose from \$694 millions to \$1,113 millions (current dollars). (Stevens, 1973, p. 471)

## **8.5 The Era of Dynamic Competition Under Commercial Freedom (1967 - 1976)**

### **8.5.1 General Characteristics**

During the period 1967 - 1976, CPR and CNR continued to face widespread and growing intermodal and market competition. Furthermore, the railways' tradition of working together did not prevent the intensification of intra-modal competition both through service (i.e. independent car supply, freight schedule changes to accommodate shippers, terminal or car investments, etc.) and price rivalry. As shown by Heaver and Nelson (1977), cases of price competition between CN and CP were frequent in the 1970's, especially when either CN or CP had the opportunity to develop transport systems for a shipper in order to move traffic under an exclusive long term contract. As the railways now operate at levels far closer to full capacity utilization than in earlier times and the gap between marginal and average costs decreases significantly, tactical, ad hoc, pinpoint pricing actions are more frequent.

However, the strongest competition to railways continues to come from alternative modes of transportation, especially trucking. During the 1970's, trucking competition increased sharply both in the short and long haul, and for bulk and non-bulk commodities. In 1972, it was estimated by Transport Canada that railways handled 57 percent of the 397,4 million tons of freight carried, and collected 48 percent of \$4,260 billions in gross revenues, with the balance held by trucking firms (Heaver and Nelson 1977, p. 22).

Studies by MPS Associates Ltd. for the Western Transportation Advisory Council (MPS Associates Ltd., 1974) and by P.S. Ross and Partners (1974) for the Federal - Provincial Committee on Western

Transportation, show that trucking in Canada in the 1970's had become a major component of the transport industry, trucks carrying a substantial proportion of intra and interregional traffic. Indeed, the first study indicated that, in 1970, trucks handled 35% traffic in grain, coal, sulphur, potash to, from and within the West; truck transportation also held 85% of the traffic in inedible products. The Ross and Partners' study also showed the very high share of traffic in selected commodities handled by trucking firms. (Table 8-3).

But, even at this late date and with much increased intermodal competition, there were still market areas in Canada where railways were the sole mode of transportation available and where, as a consequence, railway rates were not set by intermodal competition. According to the Transport Minister Otto Lang (1976) as much as 40% of the rates in Canada, were still set on a non-competitive basis:

"We have studied this very closely and found that by and large, 60 percent of the freight and passenger rates are set against competition. In other words, they do reflect the alternatives available. It is the other 40 percent where they (railways) can get away with charging a lot because there really is not any alternative". (quoted in Heaver and Nelson, 1977, p. 8)

However, Heaver and Nelson (1977) point out that this traffic is mainly in the category of commodities such as coal, potash and sulphur, which are subject to strong "market competition". This tends to limit the monopoly power of railways in setting rates and in imposing their conditions on the so called "captive shippers". However, the fact is that the presence of "market competition" is not as readily observable nor as easy to grasp as intermodal and intramodal competition.

TABLE 8-3

PERCENT OF TONS FOR SELECTED COMMODITY MOVEMENTS IN EASTERN AND WESTERN CANADA CARRIED BY FOR-HIRE TRUCKING, 1971 a)		
	WEST	EAST
Live Animals	81	84
Food, Feed, Beverages and Tobacco b)	40	37
Crude Materials, Inedible	11	12
Fabricated Materials, Inedible	45	52
End Products, Inedible	81	79

Note: a) The data are for a special selection of commodity movements in which both rail and for-hire trucks participated. In all, 308 paired highways and rail movements between the same origins and destinations were identified.

b) Excludes grain carried at statutory rates.

Source: P.S. Ross & Partners et al, "Two Proposals for Rail Freight-Pricing: Assessment of their Prospective Impact, A Report to the Federal-Provincial Committee on Western Transportation," September 1974.

### 8.5.2 The Regulatory System

The changing nature of competition within the Canadian transport industry during the 1950's, brought about pressures for a public transport policy that would enable competition in transportation to work efficiently. Such a public policy came with the National Transportation Act and the liberalization of transport regulation in 1967. The act was the result of the recommendations of the MacPherson Royal Commission in 1961. The report of the Commission stated that competitive conditions had become prevalent in the Canadian freight market and that consequently, less regulation of the railways was necessary to protect the public interest. The National Transportation Act broadened the commercial freedom of railways to set rates. This freedom was curtailed only by a limited rate control to insure a) that rates were not set below variable costs, b) that captive shippers could appeal for a maximum fixed rate, and c) that cases of discrimination by the railways could be investigated by a regulatory body.

Except for the statutory rates and some rate level hold-downs at the request of the Federal Government, the railways, since 1967, have had complete pricing flexibility which helped them in meeting the increased competition from other modes of transportation. The railways could now price without fear of facing extensive, "unjust discrimination" litigations with shippers.

The traditional "unjust discrimination" and "undue prejudice" standards which had been part of the regulations for more than six decades no longer applied, though under the "public interest" provisions of section 23 of the National Transportation Act, some types of discriminatory rates inimical to the public interest could be controlled by the CTC. As the demonstration that rates were "inimical to the public interest" proved difficult, shippers realized that they had to rely far more on their own, or their industry's, ability to negotiate rates with the railways than on making post facto complaints to a regulatory body.



This led to the formation of shipper associations or committees to negotiate rates with the railway companies for an entire industry.

In addition to the benefits the shippers derived from flexing their collective bargaining power against the large railway corporations, there are other factors which help explain this development: 1) the possibility of ensuring that all shippers who are in competition in the same markets get the same freight rates; 2) the convenience of a system whereby the railways can be assured that notification of an impending rate change to a committee, will reach all shippers, and for shippers, the convenience of preparing a single position paper for the industry rather than individual firms having to prepare separate submissions; 3) the possibility of devising new transportation, distribution and location strategies as alternatives to rail transportation (e.g. for homogeneous commodities such as cement and some petroleum products, it may be practical for firms to engage in product exchange rather than transporting goods to distant markets).

### **8.5.3 The Impact of Industry Structure on the CN's Structure, Culture and Performance (1967-1976)**

The competitive trends and pricing methods that began to appear in the previous period have now become standard practices. Indeed, during the period 1967-1976, rate increases are, with two exceptions, (i.e. 1975 and 1976)<sup>11</sup> selectively applied as a result of negotiations between shippers and railways. The railways forecast their revenue requirements, with the help of corporate budgeting procedures, and use

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<sup>11</sup>. In these two years, the railways raised many of their freight rates by considerable percentages or amounts in some broad market actions; this was done to catch up with inflation and soaring costs, after the 1973-74 rate freeze imposed by the Federal Government.

them to estimate the required rate increases on particular traffics. These estimations are based on cost configurations and on railway management's perceptions of the current and expected value of service to the shippers.

Heaver and Nelson (1977) have showed that starting in 1967, the railways generally sought the necessary increases in revenues by rate adjustments that were sensitive 1) to the demand and supply conditions in particular markets; 2) to the competitive alternatives available to shippers; 3) to the effect of rate changes on the traffic of shippers served, and 4) to the railways' attempt at making all traffic pay at least relevant variable and capital replacement costs.

The significant changes in the modes of operating and thinking of CN and CP, brought about by commercial freedom under the 1967 Act have been recognized by the Canadian Trucking Association:

"... implementation of the basic MacPherson philosophy calling greater freedom probably saved the Canadian railways from total collapse along with some of the American counterparts. The National Transportation Act offered the railways the flexibility and incentive to invest in new equipment and in new approaches with some assurance that an adequate return could be earned from exerting initiative. It is this fact as much as anything else which has allowed the railways to keep a lid on ton-mile costs for the past eight years despite extreme inflationary pressures. In turn, the increased competitiveness of the railways undoubtedly spurred on the truckers to become more efficient and more sophisticated". (Canadian Trucking Association, Statement of Position on Transportation Policy, Submission to Transport Canada, May 1976, p. 5)

This competitive behaviour on the part of CN, suggests a progressive realization that CN no longer enjoys its former degree of market power and that it is more vulnerable to increased competitive forces. Furthermore, CN's dynamic, competitive and profitable pricing geared to individual markets, indicate an emerging belief that revenues for commercial viability are not dependent on regulatory decisions and orders, but on the railways' own decisions and actions.

However, despite (or because of) a more competitive pricing behaviour, shippers continued to complain about the railways' alleged unresponsiveness to proposals for rates holdown, and about the insufficient information provided in support of rate increases.

A study of shippers' attitudes in Western Canada, carried out by the Western Transportation Advisory Council in 1976, found considerable frustration with rate increases and much skepticism about the reasons invoked by railways for these increases.

Complaints about the railways' lack of responsiveness greatly increased during 1975-76, as a result of the sharp and general hikes in rates. These concerns are vividly expressed in the summary minutes of a meeting of the Canadian Industrial Traffic League held on July 29, 1975.

"There was a growing concern amongst our membership that the railways were being "hard nosed" in their approach to negotiating with shippers and in fact a number of shippers believe that the railways are not negotiating at all but are in fact assuming a take it or leave it stance.

Further, some members believe the railways do not appear to be concerned over losing traffic to a competitive mode or to be concerned whether a manufacturer will lose his business because of market competitive forces. Other members have indicated that the personal level of past rail/shipper negotiations "has gone out the window" and that the present-day attitude seems to be one of strictly "dollars and cents" and a need for a certain return on investment with headquarters staff, as well as local railway rate officers, being curtailed to such a "dollar and cents" attitude with little or no flexibility". (Traffic Notes, issue no 4772, July 29, 1975 in Heaver and Nelson, 1977, p. 98)

In defense of their actions, the railways indicated that:

"They had taken a fairly "hard nosed" approach to rate increases, particularly on those rail rates which had been frozen, when the freeze was lifted in January 1975, because of the need for quick action". (Ibid)

A critical assumption in the early management of Canadian Railways seems to retain some relevance. The railways still have in their view "some degree of market control". They tend to consider that, to a varying degree, shippers are weaker adversaries who must be kept in line and dealt with in this spirit.

However a second assumption, namely that cost knowledge and control are important prerequisite for economic survival becomes during the 1970's a fundamental tenet of CN's functioning. It is manifested in the development of formal cost research activity, in thousands of cost analyses of specific routes, in more sophisticated pricing techniques, and generally in a much closer correspondence between rates and costs.

Heaver and Nelson (1977) report that CN's pricing officers whom they interviewed showed much concern for the need to ensure compensatory rates and for better cost knowledge. Further evidence is provided by the Snavely Commission on Transportation which, in 1976, praised the railways for their cost analysis capabilities. Their practices in this area "represent a degree of sophistication and precision that puts CN and CP at the forefront of railway cost ascertainment". (op. cit., p. 46).

Rates not related to costs did not cease to exist, however. On the contrary, Heaver and Nelson (1977) found several cases of railways setting rates either too high or too low. In the first instance, the railways were sensitive to the value-of-service factor; they were aware of their monopoly powers and as a result increased rates to take advantage of periods of high commodity prices. In the second instance, non-compensatory rates resulted mainly from rates set in long term contracts that provided little protection against the effects of inflation.

A third and new assumption gained ground at CN during the latter part of this period: CN is first in business for commercial considerations and second in the public interest.

[The railways' approach] to rate negotiations is based on "return on investment" which is a requirement if the railways are to remain viable and for them to continue to expand, purchase replacement equipment, etc., to serve the needs of the shipping public. Their approach today is that all traffic must pay its way. (Canadian Industrial traffic League, Traffic Notes, Issue No. 4772, July 29, 1975.)

CN's management, first under Gordon but in more insistent fashion under Bandeen, attempted to solve the riddle that had been CNR's birth-right: How to be a commercially viable, well run corporation, independent of, and immune to, governments' meddling and yet undertake public-interest mandates that a fully private corporation would not accept but that a crown corporation could scarcely refuse in a consistent manner.

In the 50's, the solution appeared to be in "adequate" financial compensation for any public policy mandate given to CN. This formula has proven imperfect but workable in a number of cases (Terra Novatel, Terra Transport, etc.). However, no commercially run corporation would let its strategic development be guided by the whims of public policy preoccupations nor would it let its top management's energies be channeled to the nurturing of projects and operations that have come out of the government's policy choices. In time, it became clear to Bandeen that CN should be run as a commercial corporation, without restrictions as to future orientations, tested by the market and accountable for its survival. A first step in this direction was the division allegation of CN in profit centers. A second, to be made in the future: privatization.

Bandeen's actions may be interpreted as intermediate steps toward that elusive, highly controversial goal. Bandeen was very discreet on this point, although his moves were highly suspect to the union's leadership. Whatever his ultimate goal, he did forcefully push CN to become "commercially oriented", to seek an adequate level of profitability. He managed to chop off dead weight and profit drains, to improve CN's debt equity ratio and thus its borrowing capacity.

Finally, if he did not achieve his implicit goal, he did impress upon CN the need for a bottom-line orientation, and a healthy respect for the discipline of the market.

CN had come a long way. Commercial considerations were to guide CNR's management from the start, if one reads the words of its charter. However, only lately and very progressively has this commercial stance been given any bite. For a long time, CN operated under the ambiguous premise set forth by its first president, Sir Henry Thornton: "A publicly owned railway must not be operated as a first endeavour, for profit, but to benefit the community it serves". (Stevens, 1973, p. 132). Now, to quote CN's slogan, adopted under Bandeen, "CN is in business for Canada". The emphasis has shifted, the ambiguity remains.

A fourth assumption may be tentatively described as follows: pricing not service, is the best means of coping with intermodal competition. CN's lack of emphasis on service as a competitive weapon may be explained by the absence of cartel-like regulations in Canada. Such regulations would require the maintenance of rate parity among alternative modes of transportation with a consequent shift to service rivalry among various modes of transportation. This point is easily grasped by looking at the situation in the U.S.A.

In the U.S.A. (before deregulation), ICC regulations had induced rail-truck rate parity on high value goods and had limited competitive rate cutting by the railways and sometimes by the truckers. These actions practically confined shippers to choose on the basis of service and thus incited carriers to compete on service. The exact opposite has happened in Canada. The railways could and have met intermodal competition mostly by pricing, relegating service to a secondary role. Indeed, Heaver and Nelson (1977) found in a number of case studies that except for specific instances where the railways responded to service competition by the substitution of intermodal services for rail service, their competitive response to trucking competition has largely been through competitive rate actions. It was only in specialized situations, in the design of integrated truck-rail movements, that service considerations figured prominently in the discussions of shippers with railways.

This relative lack of service orientation on the part of the railways may be further explained by (1) the seasonal and cyclical nature of demand for railroad transportation in Canada which causes recurring car shortages; to attempt to meet peak demands would require huge investments, much idle capacity much of the time and therefore higher rates; however, this excess demand at times means rationing and delays; (2) the imposition by the government of statutory rates which impose a financial burden on the railways and limit their capacity to replace equipment and to supply specialized cars; (3) the preservation of uneconomic branch lines in the public interest, which brings about

similar effects as in case (2)... and (4) the low sensitivity to service features exhibited by many shippers, given the types of goods shipped.

#### 8.5.4 CN's Performance in the Period 1967-1976

In spite of pricing freedom and of the numerous changes that took place in CN behaviour and structure the overall rate of return of CN was below competitive levels. Thus, CN's average net income before interest on debts was slightly superior to one percent on its consolidated assets in 1971 and 1972 and a negative return of one percent on shareholders' equity held by the Government, after payment of interest.

The reasons for this state of affairs are offered by Heads (1974):

"The Canadian experience has shown that freedom from regulation will not necessarily solve the financial problems of the railways. Although the railways have received some compensation for services provided as a public duty, particularly in respect of passenger transportation and branch lines, the industry has not been able to generate sufficient funds to produce rates of return which would attract substantial new investments. Theoretically, this can be attributed to a combination of a failure to reduce costs following deregulation, a failure to exploit fully the new flexibility in pricing; and possibly the development of new supply and demand conditions that make it impossible for railways to earn rates of return considered normal in other industries." (pp. 7 and 8).

Heaver and Nelson (1977) contend that despite the fact that both CN and CP have fallen short of the efficiency which had been expected from them as a result of the deregulation, the railways have supplied with increasing efficiency the freight services demanded of them by the Canadian economy.

In their view, the inadequate rate of return can be explained by two main factors:



1. The very nature of the Canadian freight market which impedes efficiency. In this sense, they note:

"No perfect adjustment of supply to demand can be expected in railway transport because of the highly variable nature of demand and the durable and fixed nature of the plant - not to mention governmental restraints on abandonment of unprofitable services and low-density lines. Moreover, under perfectly competitive conditions, firms adjust production to the prices the market clearly fixes for them. In railway transport, as in many types of Western industry, however, the firms must negotiate with their customers and fix prices taking into account all relevant demand and demand elasticity factors, as well as unit cost changes in a complicated structure of fixed, common and joint costs. Again, even with the most alert managements and refined market analyses, it cannot be expected that perfectly efficient prices could be set in an industry in which the firms serve so many diverse markets, commodities and shipments and face such highly sophisticated dynamic competitive elements." (p.300)

2. The time lag required for large organizations to adjust to changed conditions.

"Views of people within large organizations, take a considerable period to change or evolve and the working of an organization takes much longer to change than that required to complete the physical appearances of a reorganization. Institutional changes evolve rather than occur dramatically." (p.301)

Further support for this view comes from CN executives. Thus, Ron Lawless, the present President of the CN Rail Division, admits:

"It took us that long to understand the freedom and scope of the Act. It was only in 1971 that we took a hard look at the implications of rate and intermodal freedom." (The Montreal Business Report, 1982, p.12).

And, Bandeen, on the reaction to decisions to price according to specific market factors:

"I remember coming back to Montreal and announcing that we got rid of class rates. I thought the Traffic department was going to have a psychological breakdown. It was just like taking a blanket away from a baby." (The Montreal Business Report, 1982, p.13).

The process of pricing according to the market had, however, started and was to accelerate over the next few years.

## 8.6 Conclusions

Despite inadequate rates of return that raised again the issue of CN's commercial viability, it appears clearly from the evidence that since 1967, CN has undergone a number of important institutional changes. These changes, both structural and cultural, have come about in response to increased competition in the Canadian freight market and the commercial freedom granted by the National Transportation Act of 1967. A "competitive behaviour" is increasingly part of the CN's mode of operation. This competitive behaviour is manifested in CN's pricing activity which is (1) selective, that is, which does not use the across-the-board increases in freight rates and takes into account the demand and supply conditions in particular markets; (2) intermodal, as it takes into consideration the competitive alternatives available to shippers; (3) customer-oriented, as it considers the needs of the shippers served and the impact of rates on their competitive stance; (4) cost-oriented, as evidenced by the preoccupation with a closer correspondence between costs and rates; and (5) commercially driven, as it requires that every traffic pays its own ways.

This more competitive stance is underpinned by a number of assumptions gaining ground at CN after 1967. They are as follows:

- 1) "CN is no longer in the privileged position of controlling its market at least to the degree it used to, and as a result, it is more vulnerable to increased competitive forces."
- 2) "Revenues for commercial viability are not dependent on regulatory decisions and orders, but on the railways' competitive actions."
- 3) "Cost knowledge and cost control are important prerequisites for economic survival."
- 4) "CN is in business, first, for commercial considerations and second, in the public interest."

Of course, there are still manifestations of the railways' lingering market power when dealing with so called "captive" shippers. The assumption of "market control", deeply imprinted on CN's consciousness still applies to some extent to almost 40% of the Canadian freight traffic.

Finally, CN and CP have, for a host of reasons, reacted to inter-modal competition by pricing actions, placing little emphasis on service rivalry, thus leading to an operating assumption that:

- 5) Pricing, not service, is the best means of coping with intermodal competition.

### **8.7 Other Contingency Factors Shaping Culture and Structure at CN**

Rail operations in general and CN's crown corporation status in particular, have produced additional sources of influence on CN's functioning and development. Two major factors were singled out for further but brief consideration in the rest of this chapter:

1. The nature of technology in rail operations
2. The character of union at CN

### 8.7.1 The Nature of Technology

Rail operations are peculiar in that they are very labour intensive, yet demand huge infrastructural investments. The first characteristic leads to an acute sensitivity to people issues and a push-and-shove approach to labor-savings technology. Labor costs at CN rail typically hover at between 60% and 70% of total operating costs. It comes as no surprise then to find an intense preoccupation with the welfare of employees running through the pronouncements of successive leaders. They have all tried in their own way and style to establish some rapport with the employees, to convey their belief that CNR was a people's organization that would stand or fall by the grace of its employees.

From the very start, Thornton set the tone: "Subordinates should be made to feel that they count and that they are essential elements in the process of transportation" (Stevens, 1973, p.308); Thornton regularly stopped to talk to workers about their children's birthday, participated in social and sport activities within the company; he voiced concern for the present and future security of CNR employees. In a personal letter, he tells of one of his forays into operating realities:

"Last night, after dinner, I visited all the Montreal yards as I never get a chance to see the men who work at night. I took about three hours and visited all offices and engine houses. I found everything in good shape and the men on the alert. I was rather a shock to them as railway presidents have been rare visitors, but they obviously were delighted to see me".

I understand that it is all over the road by now and that is is exciting a good deal of comment and good feeling. So perhaps it was an evening well spent. (Personal letter to Martha Wattriss, June 10, 1924, quoted in Stevens, p.317).

Such statements and actions run through the entire history of CN. In more recent times, CN's leadership has resorted to modern means, such as advertising, to underline the same theme: CN is (or must be) an

organization of dedicated people in the service of Canada. Bandeen's extensive tour of Canadian cities programmed to generate media exposure that would reach the "wives of employees" during the day, capped by a large gathering of CN people at dinner time, is in pursuit, through modern means, of the same goal: stirring people's sense of belonging to a valuable organization which has their interest at heart (see chapter 7).

However desirous to care for the welfare of its employees, CNR's leadership could not avoid implementing new labor-saving technologies that were essential to its survival. This fact of life gave credence to the union leadership's claim that the union, not management, could and would protect employees. A particularly critical episode with long lasting effects occurred when rail organizations switched their basic technology, went from steam to diesel-operated engines. This traumatic period of labor-force contraction, set a precedent for future instances. The union negotiated at length and finally obtained a comprehensive and generous package of compensation and concessions from CN.

A second influence of technology on rail operations comes from the large investments in equipment and infrastructure that are required in this business. In average, considering the ratios between gross income and capital investment, about 10 years are required by a railway to turnover its capital. Then, a large static capital in investment is necessary in order to bring in a modest turnover and a large volume of goods to cover the fixed costs. As a result of this economic peculiarity of the railway business, the operating assumption of volume and economies of scale as key factors for survival has appeared at CN early on. Indeed, as every railroader knows, any extra volume can only help, as almost any tariff will cover variable costs and contribute somewhat to the high fixed costs involved. Furthermore, given the size of the financial commitment and the time lags in implementation, decisions to change the configuration of equipment or trackage structure, are made very slowly and carefully and on the basis of a five-to-ten-year planning exercise. Once committed to such decisions, there is little flexibility to back or shift away.

This situation has two lasting effects: a) it reinforces a sense of market control, in that, once committed to a certain level and type of supply capability, demand will have to adjust to it, until the supply configuration can again be modified; b) in such a context, no major changes can be effected quickly as the weight and inertia of long range decisions are highly determinant; of course, operations must be tightly managed on a day-to-day basis, but major changes must be planned carefully and implemented over the course of many years. In their strategic management, such organizations know not urgency and haste; a few more months are always available for further analysis, planning and deliberation. The relevant time horizon is a long one, which, at CN, is well captured by the five-year plan. This elaborate planning process provides the framework and mind set within which are carried out the debates and eventually the decision making on capital investments, sources of funds and broad orientations. At CN, as in any capital intensive company planning for long-time horizon is essential to the good functioning of the organization. And this is an important cultural assumption at work.

As financial data are very concrete, can be projected fairly reliably over a five-year period, and provide the acid test of the corporation's likely dependence on governmental sources of funds, the five-year plan is heavily dominated by financial considerations; it is, in fact, the corporate vice-president (finance and administration) who has the overall coordinating responsibility for preparing this document.

#### **8.7.2 The Character of Union at CN**

From the very beginning, CNR's employees were unionized, as organized labor was a fact since the early 1860's in the railway industry. However, CNR's first president, Thornton, was particularly determined to establish good labour relations, a factor he well knew from his experience in Great Britain, was of critical importance to running a railway.

"Thornton made a great play, for the good will of organized labor and the rank and file of the staff. Within a matter of months, he had built an almost unassailable position for himself among his hundred thousand employees. The Canadian National railway men were far less homogeneous, far more sectionally minded than those of the Great Eastern Railway; nevertheless, Thornton repeated his British triumph, and his workers became his men to a man. Like all good leaders, he evoked the simple symbols of fellowship. He seldom failed to draw attention to the union medallion<sup>12</sup> on his watch chain." (Stevens, 1973; p.317)

In 1947, after the war, a new era of labor relations began. Collective professional type of negotiations and intensified labor pressures for wage increases, for better working conditions and against any changes in work rules, characterize the relations between management and labor at CNR.

This new era is described by G.H. Lash, director of public relations at CNR, as follows:

"Instead of bargaining with each group of unions more or less separately as had been the custom in the past, the railways now found themselves faced with an overall demand which took little account of differences in skill or geographical location. The duties of a train dispatcher and those of a dining car waiter were greatly dissimilar and the employees in Nova Scotia enjoyed a lower cost of living than those in Toronto or Vancouver. But these things now ceased to matter. In place of the paternalistic labor negotiator who bargained with management on a first name basis, there now appeared for the first time on the Canadian railway scene the new United States<sup>13</sup> type in the person of Frank Hall - affable but aloof, capable and dedicated to his cause, surrounded by a well-organized staff of economists, statisticians and lawyers." (quoted in Stevens, 1973, p.398).

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12 The membership badge in the Great Eastern Railway Union which had been awarded, "honoris causa", to Sir Henry Thornton. He was the first management officer to receive such an honor.

13 According to Stevens, Mr. Hall conformed more to the British rather than to the American tradition of labor negotiation.

The period of technological change and labor force contraction described in the last section which coincided with (or was it brought about by it) more professional and assertive unions, created a period of extreme labor-management frictions and frequent government intervention. Darling (1982) gives us a brief description of several wage negotiations at CNR which required government intervention.

A strike was averted in 1948 only after the cabinet gave in to labor's demand. A strike did take place in 1950. It was ended by the Railway Operations Act, passed in a special session of Parliament, which again acceded to the essential demands of the unions. Government intervention was again required in 1953 and almost resorted to two years later. A settlement was arrived at in 1956 only with the assistance of a conciliation board and a new crisis burst in 1958. In 1960, at the next round of wage negotiations, the government was forced to pass another act of parliament to postpone a strike. In 1962, exceptionally, a settlement was reached between the parties concerned, but in 1964, the government found itself again enmeshed in the negotiations. A wage settlement was arrived at only on the promise by the government to provide the railways with the necessary financial assistance to support the increase. On two further occasions, in 1967 and 1973, parliament was forced to pass legislation to stop or prevent railway strikes.

Darling (1982) writes: "The unions had been pursuing the wage levels said to exist in the durable good industries and when that goal had been achieved, a newer one was substituted" (p.190). With such strained labor relations, "the company was still something of a family", according to Stevens (1973), "but its ties were honored as much in the breach as in the observance" (p.496). The management of CNR, faced with this period of intensified labor demands and unrest that started in the 1950's, nevertheless sought "to preserve and reinforce the family atmosphere and to treat all members alike" (Stevens, 1973, p.499).



As mentioned in chapter 7, alternate employment either within or outside the company were offered for those whose job had been eliminated by technological changes; benefits to laid-off employees were increased, a voluntary Early Retirement Plan went into effect and a Public Relations Course had been introduced "to provide supervisors who would explain the workings of the system to all ranks, familiarize them with the problems of management in a nationwide railway structure and speak of the importance of the relationship of all employees to each other and to the common task." (Stevens, 1973, p.499). During 1960's, 3,560 railwaymen attended training courses to prepare them for new jobs, and no outside labor was hired if a present employee was available.

Therefore, the history of labor management conflicts, has eroded, as far the scheduled (unionized) employee is concerned, the assumption of CN as a big family. Management never abandoned its efforts to maintain that relationship with employee, often over the head of the union leadership. However, as a widespread assumption and value in the corporation, the family concept progressively lost credibility as the union's strength and determination proved most capable of extracting concessions from a reluctant management and a pliant government. However, in the management group, the assumption remained strong, rooted in history and supported by policies and practices concerning its non-unionized employees.

But, the union at CN was also very influential in maintaining the currency and potency of another assumption: "CN's public service role". For the union leadership and members, it is a truism that CN is not just another profit-seeking organization. Its role is to provide a public service to the Canadian people at the best costs to the public purse. Obviously, the private enterprise lexicon of commercial and bottom-line orientation is foreign language, odd and threatening.

Chapter 7 provided examples of the vigorous rethoric that flows from the union leadership on this issue. The public service assumption, although having a functional (even self-serving) role in this

case, does not lose its power of persuasion, as it is shared by a large part of management, although with considerable more ambiguity at that level.

An eloquent statement of the union's belief in this respect is provided in a letter by the union's president to Mr. Claude Perron:

"It is my view that if this (i.e. eliminating services that are not profitable) were to occur, very serious questions would arise concerning the role of CN, and one could well ask whether the great expenditure of public funds to maintain CN over the years was justifiable. Indeed, if the operation were to be maintained only where a profitable market existed, it could fairly be asked whether or not CN were serving a bookkeeping or balance sheet purpose, rather than one relating to regional and national economic concerns. While CN might prosper in the balance sheet world, regional and national interest might well suffer intensely in another type of world.

It is our view that CN cannot exercise a license to be financially irresponsible in the managerial area at public expense where a healthy market exists. A distinction must be made between those areas where an economic operation is feasible, and those where there is a responsibility to maintain a necessary service as part of a national or regional overall economic concern.

We believe that now, as much or more than at any time in our history, it is necessary to preserve symbols and realities identified with national unity, and that all determinations concerning these should not be made on an internal balance sheet basis.

We believe costs imposed by managerial omissions, marketing errors, low morale or productivity, should not be carelessly imposed upon the public purse. Neither do we believe that CN in the balance sheet sense should be made to accept the cost of maintaining public services required to make a contribution to a necessary and essential regional or national interest. Those costs should be borne by government." (Letter of Mr. Don Nicholson, National President of CBRTGW, June 11, 1979).

## 8.8 Conclusions

The nature of technology in rail operations and the character of union at CN have produced two additional operating assumptions at CN and contributed to the reinforcement of two already existing ones.

Specifically, the nature of technology in this business (i.e. huge infrastructural investments and high fixed costs) is accountable for the following assumptions:

a) Volume and economies of scale is key factors for survival;

and

b) Planning for long-time horizon is essential to the good functioning or the organization.

Furthermore, a second peculiarity of technology in rail operations (i.e. very labour intensive, despite huge infrastructural investments required) led CN management to be highly preoccupied with the welfare of its employees and therefore shaped largely. The "family atmosphere" assumption discussed earlier in Chapter 7.

As to the union, as contingency factor, it has succeeded in eroding to some extent the assumption of "CN as a big family", while maintaining the currency and potency of another (self-serving) assumption: "CN's public service role".

TABLE 8-4

Chronology of Major Events in CN History

YEAR	ISSUE	ACTION	POLICY RESPONSE
1916	Excess rail capacity threatens to bankrupt some 200 rail lines.	Appointment of the Smith-Drayton-Ackworth Royal Commission.	Formation of CN with mandate to operate as "one united system, on a commercial basis under its own politically undisturbed management for benefit of Canada."
1923	Political interference (government over rules company's refusal to permit employees to seek political office while working for company).	CN President, D.B. Hanna, resigns.	First and last instance of political interference.
1932	CN losses; CP criticism of CN expansion.	Appointment of the Duff Royal Commission.	Reaffirmed principle of competition, but recommended replacement of board of directors with three trustees.
1933	Duplication of CN and CP rail services.	CN-CP Act.	Legislated recommendations of Duff Commission - more cooperation between two railways in eliminating wasteful and duplicate service. Replaced CN board with board of trustees. Board of directors reinstated in 1936.
1937	CN debt burden.	Government forgives loans and interest from 1923 to 1937.	Partial recognition of long-term debt as impediment to fiscal soundness.
1948	Railway freight rates.	Appointment of the Turgeon Royal Commission.	Profits possible, but rates should cover cost and help economic development.
1952	CN debt burden.	CNR Act cuts company's indebtedness in half.	Partial recognition of long-term debt as impediment to fiscal soundness.

TABLE 8-4 (cont'd)

Chronology of Major Events in CN History

YEAR	ISSUE	ACTION	POLICY RESPONSE
1959	Rail's survival.	Appointment of the MacPherson Royal Commission	Reaffirmed principles of competition, rate-making freedom, and financial compensation for providing nonprofitable services in national interest.
1967	Fragmented and inequitable transportation policies.	National Transportation Act	Enshrined above principle into law governing all modes.
1976	Company's organization.	Reorganization of company into profit centers.	Businesslike approach to pursuing commercial mandate.
1978	CN debt burden.	Recapitalization Act forgave \$808 million debt in exchange for future self-financing and dividend payments.	Full recognition of long-term debt's effect on debt-equity ratio.
1980	Future directions of company.	Corporate policy statement.	"The management of Canadian National sees no conflict between a profit-oriented role for the Corporation and a responsibility to serve national purposes. Indeed we believe that the principle that CN should seek a commercial return on all its activities will lead to a clearer definition of the national tasks to be performed and to more efficiency and less cost in the performance of these tasks."

Source: Gratwick, John, Canadian National: Diversification and Public Responsibilities in Canada's Largest Corporation, Institute for Research on Public Policy 1982, p. 237-249.

## APPENDIX - 8A

## ANECDOTAL EVIDENCE ON THE STATE OF COMPETITION BETWEEN CN AND CP

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SOURCE: MEYNARD, ALBERT METCALF: "One Man's Word for It. A Travelogue in Fact and Fancy" (Autobiography), Montreal 1980,

The Lindsley Mining Group

The most aggressive competition during my later years at head office came from George H. Baillie who, as a contemporary in the early twenties, was secretary to Grant Hall, Senior Vice-President under Beatty, while I was serving my apprenticeship with Hungerford. Baillie worked his way to a vice-presidency through the operating department. No grass grew under his feet while there were opportunities to cultivate friends in all levels of business, and with an ear to the ground, he kept abreast of current local happenings and learned of things to come.

CN's Development Department interested the Lindsley mining group in the development of a deposit of nepheline located in Central Ontario north of Trenton, and was instrumental in assembling and moving a couple of carloads by truck and rail for trial by potential users. These experiments, having been successful, negotiations were being concluded for a railway spur to serve the mine when suddenly word reached Fairweather that the CPR had been chosen to provide this service. Donald Gordon phoned Thayer Lindsley who apologized profusely but declined to break a promise to Baillie. Instead, Lindsley promised to otherwise make up the loss to CNR, of which he had long been a substantial customer, through other more productive mining ventures located near to CNR lines. (It subsequently came to light that Lindsley's father had been a station agent of the Canadian Pacific Railway).

### Stelco

About the same time our Development Department directed to the attention of Stelco the potentialities of an iron ore deposit in the Ottawa Valley. This orebody was subsequently turned into the Hilton mine and was serviced by a CP spur over twice the length of one needed to reach the CNR. In this case, Baillie would have had the support of Ross McMaster, chief executive of Stelco, and, as I recall, a member of the Executive Committee of Canadian Pacific.

### General Motors of Canada

General Motors of Canada, as an outgrowth of the McLaughlin-Buick plant at Oshawa, had been served for several decades by the Oshawa Railway Company. This railway provided switching services to local industry, and interchanged traffic between industry and CP and CN railways. Oshawa Railway Company, operating over certain city streets, was owned by the CNR. Although it was shown that there was an equality of service, the CP, with Baillie as advocate, won authority from the Board of Transport to construct an expensive overhead branch across the CNR's double tract main line. Their objective was to reach General Motors' plant and an industrial area hitherto local to the CNR.

Baillie also had the support of "Old Sam" McLaughlin who, besides being the pioneer developer of the McLaughlin-Buick automobile and the head of General Motors of Canada, was a member of the Board of CP. Under such circumstances, it was a wonder to me that switching service by the Oshawa Railway Company remained exclusive for so long. This gave the CNR no advantage in the routing of traffic, but at least we knew for sure what our competitors were getting, which we never did after the CP connection was built.

Still, there are those who say that the traffic advantages to be gained by having executives of large corporations on a railway directorate, or vice versa, is a myth.

Building a Spur Line - Then No Traffic

A Company was planning to develop a mine in Northern Ontario from a smaller deposit of ore adjacent to an already proven ore body of major proportions. Railway service to this larger deposit was provided jointly by CN and CP railways whose spurs approached the property from opposite directions. The newer and smaller mine needed a service track, estimated to cost for labour and materials about \$280,000. By written agreement deposits of half that amount were to be placed with each railway before construction proceeded. CNR received its share of the payment forthwith and the trackage was constructed - but not a pound of freight moving over the spur ever became the traffic of the CNR!



## CHAPTER - 9

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### SYNOPSIS OF CN EXPRESS ACTIVITIES TO THE END OF 1979

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## 9.1 Introduction

This chapter provides a synopsis of CN Express' activities, from around 1950 to 1979, when the turnaround began at CNX.

The chapter informs the reader on the specific conditions of the Express genesis and outlines the various market strategies CNX used along the years. A knowledge of CNX's genesis and evolution until 1979, is essential to any understanding of why it came to be in such a difficult financial situation and why a strategic turnaround was required.

## 9.2 Genesis and Evolution of Express Activities to 1967

As a spin-off to its main railway activities, CNR, in the 1950's, offered two separate and distinct services: (1) the express parcel service associated with the rail passenger service, and (2) a less than carload (LCL) service operated in conjunction with the rail carload freight service. Both services used trucks for pick-up and delivery, and rail for the intercity movement.

The express, or small parcel service developed and reached its peak in the mid 1950's when more than 24 million shipments were handled and service was provided to some 3,500 communities across Canada.

In the late 1950's, improvements in highway network throughout much of Canada contributed to the growth of highway truck competition to Express and LCL services. In response to this trend, in 1961, CN decided to integrate the Express parcel service and LCL, in what was called CN "Express Freight." These Express activities continued to be conducted as an adjunct to CN Rail operations.

Between 1962 and 1967, CN spent much effort on the difficult task of integrating its Express parcel service and LCL activities. This required a melding of staff and facilities, the adoption of standardized procedures and a common rail/highway line haul operation. The actions taken were seen as a necessary step in converting two services into a profitable

operation. In 1966, a marketing and sales organization was established to market this new service. However, CN clients reacted unfavorably to the integration which, in their view, translated into higher rates for a lower level of service.

Using the latitude in rate determination afforded by the National Transportation Act of 1967, the two Canadian railway companies, CN and CP, united with various smaller regional firms in what is now called the "Express Transport Association" (ETA). This association's main purpose was to standardize services and set rates. The rate structure remained, however, subject to governmental approval through the Canadian Transportation Commission. The ETA promulgated in September 1967 the first, all inclusive, less-than-carload tariff (ETA-100) which provided freight-all-kind (FAK) rates from 1-10,000 lbs. The ETA-100 tariff structure was similar to the existing rates in the trucking industry, and reflected the fact that railway companies had started gradually replacing rail transportation by truck for much of the intercity movement of small and LCL shipments.

From that point on, the integrated express freight operation quickly evolved from what was initially a rail service between locations served by the railways to a trucking operation providing service in competition with other road-bound carriers, but to a broader geographical market area than any particular trucking firm.

Express Freight was also involved at that time and until very recently in two additional revenue producing activities:

1. The servicing and repair of its own and other departments' automotive equipment;
2. The provision of various terminal and highway services principally to CN Rail Intermodal services.

### 9.3 CN Express Market Strategies in the Period 1967 to 1979

Under the aegis of the ETA, CN adopted a tariff structure which favoured shipments of more than 100 lbs. at the expense of small parcels (i.e. shipments of less than 50 lbs.). This action and the emergence of numerous specialized firms in the courier and small parcel industry, brought about the loss of a large market share in the lower end of the LTL business. By 1970, the volume of shipments handled by CN Express Freight had dropped to less than 12 million and continued to decline steadily.

As a reaction, in 1972, CN launches a new service for "small" shipments, called Pre-Pac, hoping to increase its market share in the "small" business. The proposed operation for small parcels was modeled on the very successful United Parcel Services in the United States:

- 1) the handling of small parcels through a separate parcel operation.  
For the purpose of this new operation, a shipment was defined as a single piece with a maximum weight of 50 lbs. not exceeding 108 inches in length and girth combined, without exceeding 42 inches on any one dimension;
- 2) the service was to be provided on the high volume Quebec-Windsor corridor only;
- 3) documentation was to be reduced to a minimum; no waybill;
- 4) no tracing, no collect shipment, no C.O.D.;
- 5) a specialized parcel fleet was to handle pick-up and delivery at major terminals while a by-product operation with existing fleets was to be used at smaller terminals;
- 6) small parcels were to be moved through separate shed operations in major terminals;
- 7) separate accounting and administrative activities were to be set up.

Several studies of that concept were conducted at that time. They all concluded that a system of handling small traffic through a separate operation with specified restrictions could be developed into a profitable business for CN. Cost analyses support this conclusion. Typical results are presented in Table 9-1.

**TABLE 9-1**  
**CN Express Actual and Estimated Average Cost**  
**Per Piece Less Than 50 lbs.**

	1973 Study	1974 Update
Adjusted cost (1-50 lbs.)	\$ 4,93	\$ 5,41
Estimated single Pre-Pac cost	3,96	4,35
Short-term attainable cost (proposal)	3,54	3,51
Long-term attainable cost (proposal)	2,55	2,50

Source: Feasibility studies of a small parcel operation at CNX, 1973, 1974.

However, the Pre-pac concept was not implemented to any significant extent before 1975 when it was fundamentally transformed and relaunched under the name of "Rapidex". Although aimed strictly at the small parcel market, Rapidex was substantially at variance with the projected Pre-pac service; a fundamental recommendation of the feasibility studies that CN Express's involvement in the "small" should be effected through a totally separate operation, was disregarded. The basic and critical assumption underlying the "Rapidex" strategy, was that product "integrity" could be preserved and operating efficiencies obtained through integrated LTL and Rapidex operations. The entry into the small shipment market resulted in rapid growth of revenues from small shipments. The Rapidex service handled a total of 4,3 million shipments and had a total revenues of \$19,3 million by 1979. (Table 9-2) Nevertheless, the financial performance

of CN Express continued to deteriorate; operating deficits went from \$34 million in 1976 to \$47,2 million in 1979. (Table 9-3) The latter result must be compared with a projected 1979 operating deficit of \$25,2 million contained in the 1977 plan.

**TABLE 9-2**  
**CNX Traffic Carried**

	1976*	1977*	1978*	1979
<u>Revenue (\$ million)</u>				
LTL	103,8	96,3	95,6	96,5
Rapidex	5,4	9,0	14,3	19,3
Air	7,1	7,1	7,6	7,6
TOTAL	116,3	112,4	117,5	123,4
<u>Shipments handled (000)</u>				
LTL	5,5	4,5	3,9	3,8
Rapidex	1,3	2,3	4,0	4,3
Air	0,7	0,8	0,8	0,7
TOTAL	7,5	7,6	8,7	8,8
<u>Pieces (000)</u>				
LTL	24,9	20,1	19,3	20,0
Rapidex	1,1	2,3	4,0	4,3
Air	1,2	1,2	1,2	1,1
TOTAL	27,2	23,6	24,5	25,4

\* Including New Foundland.

Source: Memorandum to Cabinet Re: CN Express, December 1980.

**TABLE 9-3**  
**CNX Losses Incurred**  
**(\$ million)**

1970	14,0
1971	13,0
1972	14,0
1973	15,0
1974	23,0
1975	25,0
1976	34,0
1977	35,0
1978	36,0
1979	47,3

Note: Prior to 1976, the losses are understated as they do not include all of the costs for service provided to Express by other CN departments. According to CN, the amount of this understatement may be roughly estimated at about 14\$ millions per year. These negative results were experienced despite management's efforts to reduce expenses through a series of major programs, some of which affected manpower levels. Between 1970 and 1979, the work force of CN Express declined by 32%, from 7,700 to 5,200.

Source: CNX Internal Documents

This unfortunate situation was attributed to the stagnation of revenues from the LTL sector. As the new "small" market strategy seemed to produce favourable results (i.e. Rapidex product was growing at a relatively high rate compared to the LTL business which showed decline), CNX adopted an even more aggressive posture in that market by offering a substantial price discount to volume shippers. This market strategy was implemented in 1976 as "Rapidex Special" which offered substantial price discounts to those clients who provided more than 20 shipments per pick-up. The service was immediately very popular (Table 9-4.).

**TABLE 9.4**  
**Evolution of Revenues Per Type of Service**  
**1970 - 1979**  
**(in \$ million)**

YEAR	L.T.L.	RAPIDEX	AIR EXPRESS	TOTAL
1970	76,3	-	2,7	79,0
1971	76,1	-	3,1	79,2
1972	82,2	1,0 <sup>(1)</sup>	3,8	87,0
1973	76,8	1,5 <sup>(1)</sup>	4,7	83,0
1974	96,0	1,8 <sup>(1)</sup>	5,5	103,3
1975	105,3	4,2	7,5	117,0
1976	99,8	5,4	7,1	112,3
1977	93,5	9,0	7,1	109,6
1978	92,8	14,3	7,6	114,7
1979	96,5	19,3	7,6	123,4

<sup>(1)</sup> Revenues of "PREPAC"

**Evolution of Rapidex and Rapidex Special**

	1976	1977	1978	1979
<u>Revenues (\$ million)</u>				
Rapidex	5,4	5,4	7,6	10,2
Rapidex Special		3,6	6,7	9,1
<u>Number of pieces (in thousands)</u>				
Rapidex	1 100	1 138	1 539	1 779
Rapidex Special		1 130	2 322	2 551
<u>Average revenues per piece</u>				
Rapidex	\$ 4,22	\$ 4,72	\$ 4,92	\$ 5,73
Rapidex Special		\$ 3,30	\$ 2,90	\$3,57



Unfortunately, these results did not reverse or even stabilize the deficits of CNX.

Since 1967, CN Express has also exploited with Air Canada an air freight service. The "Air Express" service represented but a small fraction of CN Express total revenues. In 1977, Air Canada decided to launch its own courier service under the name of "Airvelope" and a small parcel service called "Couriair". In response, CN Express introduced a new service: "Rapidex Air". Essentially, this service was similar to Rapidex but with intercity transportation by plane. CN Express negotiated directly the air cargo rates with airlines (and not always with Air Canada).

To sum up the range of services offered by CN Express by 1979 as well as their contributions to revenues were as follows (Figure 9-1):

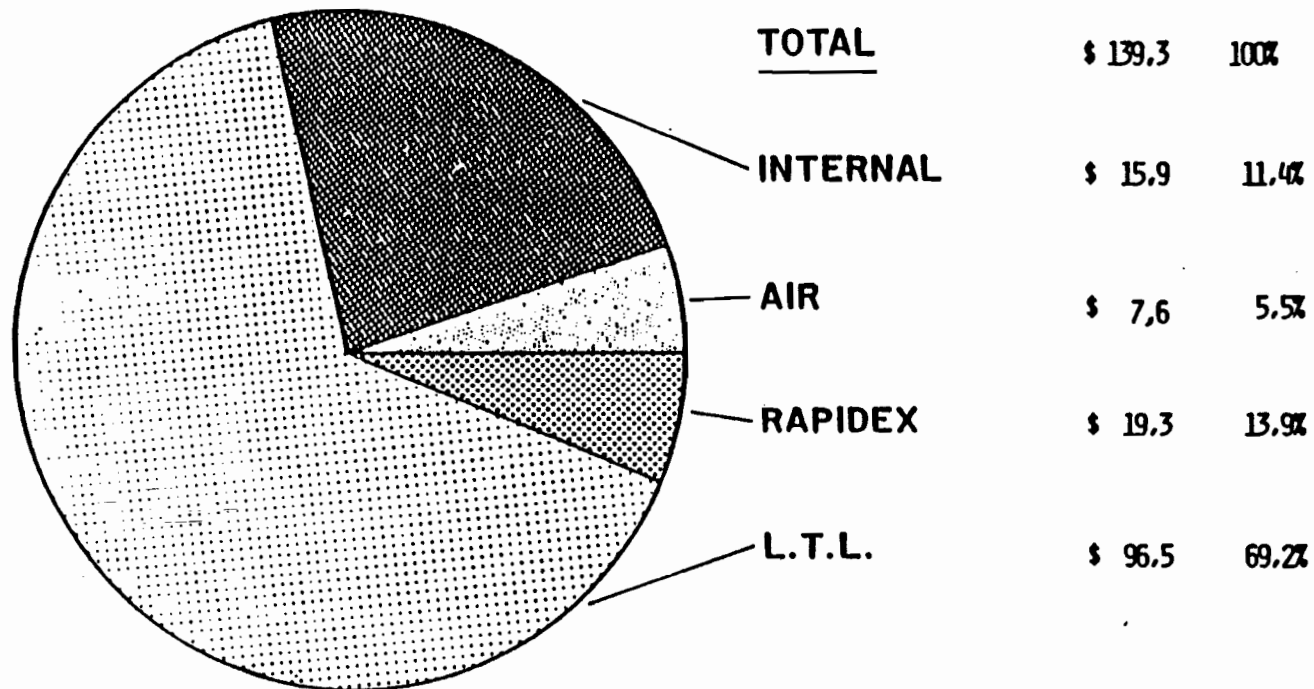
- 1) The LTL business (0 - 20,000 lbs), which accounted for \$96,5 million or 70% of total revenue of \$139,3.\*
- 2) "Rapidex" and "Rapidex Special", (in principle 0 - 50 lbs) which generated \$19,3 million or 14% of total revenues;
- 3) Rapidex Air and Air Express, representing \$7,6 million or 5,5% of total revenues.
- 4) Internal revenues of \$15,9 million coming from services to other divisions of CN, such as intra city trucking service to CN Rail and trucks maintenance for the TL trucking Division of CN.

Table 9-5 provides the distribution of shipments by weight and type of service in 1979. It should be noted for further use, that more than 40% of the CNX's LTL business falls in the small parcel sector.

\* Including internal revenue of 15,9 million.

FIGURE 9.1

## 1979 REVENUES BY PRODUCT



**CN EXPRESS**

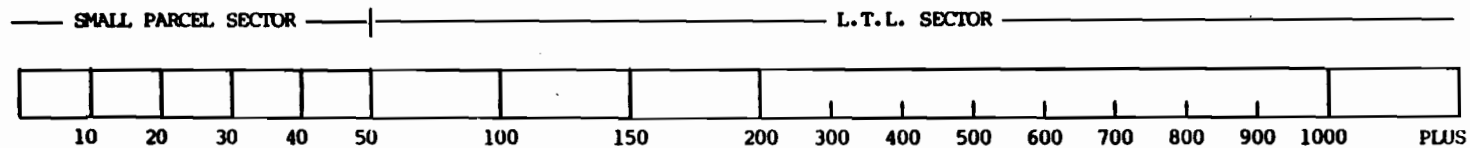
Source: CNX Management Documents.

TABLE 9-5

Distribution of Shipments According to Weight and Type of Service in 1979

(% of Shipments)

(TOTAL)



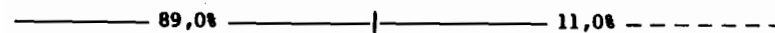
L.T.L.

8,81	9,01	22,38	21,07	9,69	6,20	22,84
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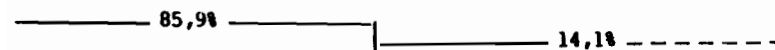
RAPIDEX

32,18	21,68	35,14	More than 50 lbs.
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AIR EXPRESS

50,2	19,3	16,4	More than 50 lbs.
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#### **9.4 The Evolution of the Organizational Structure of Express Activities Up to 1979**

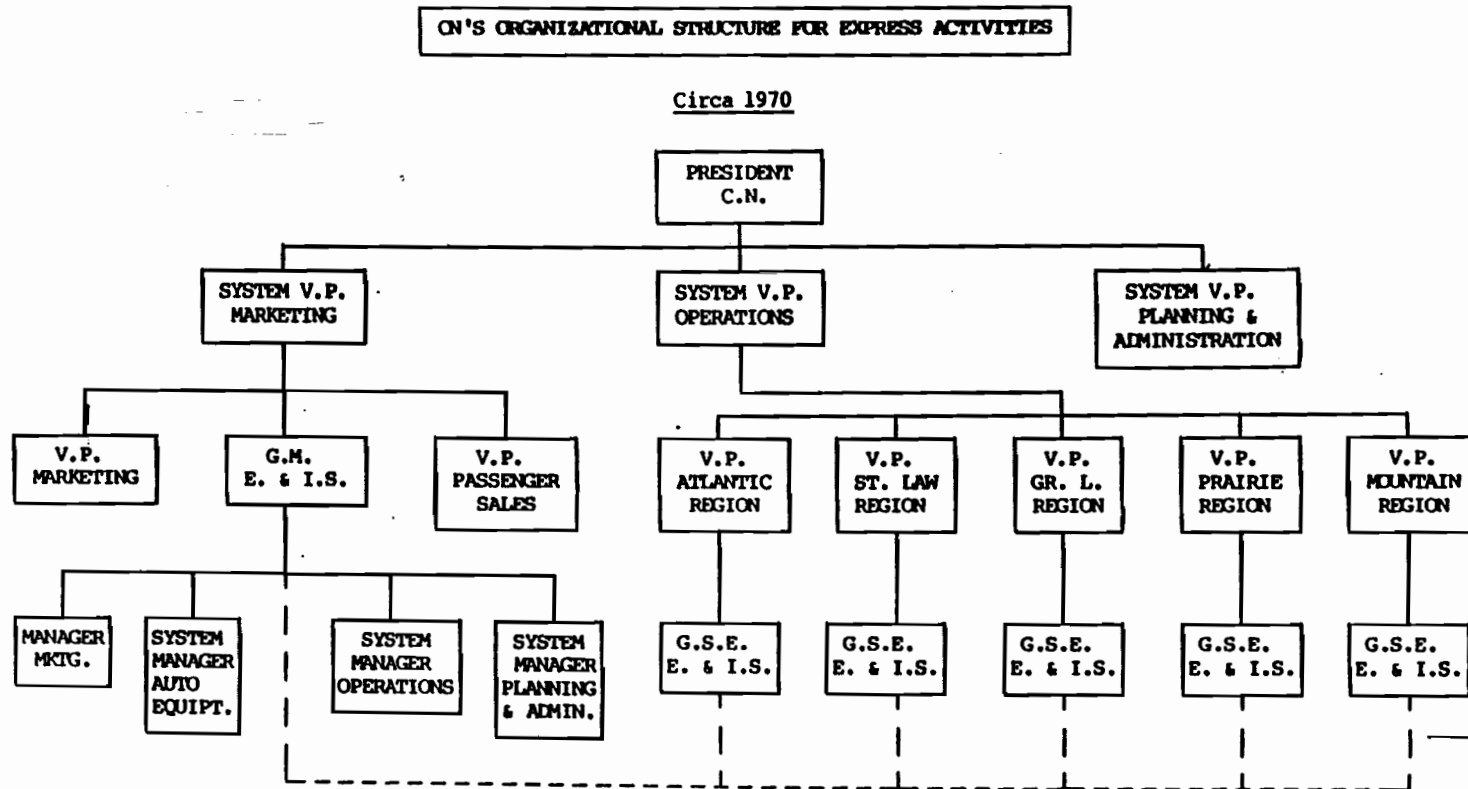
Prior to 1976, the express activities were conducted as an adjunct to CN Rail operations under the designation of CN "Express Freight". The officer responsible for express activities, at the regional level, was called "General Superintendent-Express and Interline Service" and reported to the Regional Vice-President of CN Rail, who further reported to a System Vice-President for Operations. (Figure 9-2).

At Headquarters, the Express Managers had no line authority, their responsibility being confined to tariffs, design of facilities and equipment, acquisitions and planning.

The General-Superintendents Express and Interline Service were in effect in charge of Express operations including the maintenance of equipment and the development of business; each had under his direct supervision a Division Superintendent and a number of Station agents. Under this arrangement, financial results for Express were included in CN Rail's operating results; specific express costs were not segregated and identified.

In 1976, the Express operation was set up as a separate division, a profit (or loss) centre with considerable autonomy, although some administrative services such as accounting, labor relations, etc., remained centralized at the corporate level. The organization chart of the newly created CN Express Division (Figure 9-3) reflects the traditional railway structure: centralized line of authority and a division of the Canadian market into four geographical regions, managed by four regional managers. The Express Division's mandate was to operate an extensive geographical network of terminals and points serviced, many with relatively low daily volume. This extended geographical coverage resulted from CN's legal obligation to provide national transportation services.

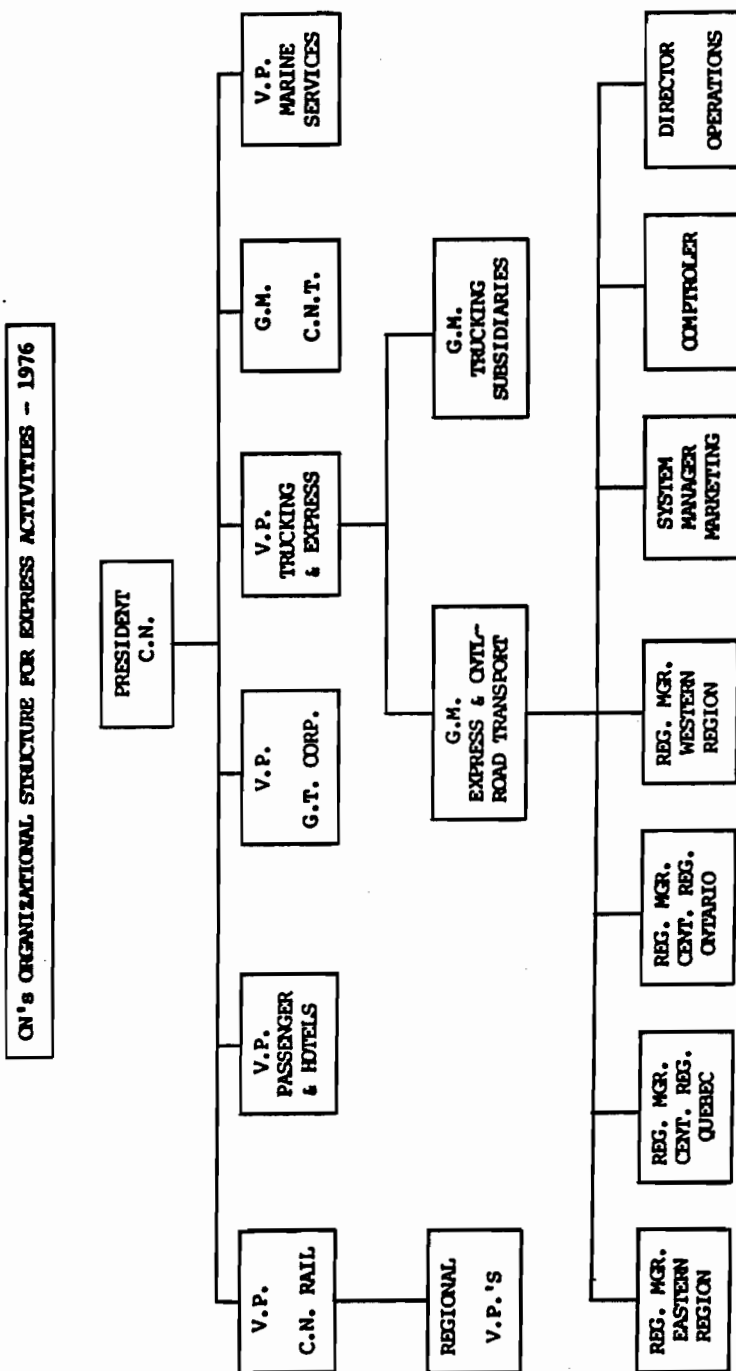
**FIGURE 9.2**



Source: Document ON Express Division, Nov. 1976

\* General-Superintendent Express and Interline Service.

**FIGURE 9.3**



Source: Document CN Express Division, Nov. 1976.

The prime consideration in the establishment of the CN Express as an autonomous division was the belief that a separate Express operation would lead to effective actions, to control and reduce costs. Following the organization of Express as a division, it was possible for the first time to obtain an accurate and detailed picture of the division's financial problems.

### **9.5 The Period of Crisis (1976 to 1978)**

The creation of the CNX division revealed that express operations were losing \$34 million a year, that figure being a minimum as a number of cost items were not, or only partially, included.

The sudden realization of the CNX's financial woes fostered among managers a sense of urgency and brought about multiple analyses, orientation sessions and the hiring of outside consultants; various actions were taken to attempt to stop the bleeding of the division.

On October 20, 1977, a report of 124 pages entitled "Is the 5-year plan achievable?" was produced by the Vice-President Trucking and Express, Mr. George Lach. The document raised a number of questions about the 1978-82 plan prepared by CNX's management. According to Lach, the elimination of CNX's deficits, by 1981, as proposed in the plan, hinged on positive answers to five questions:

1. Are the revenue targets achievable?
2. Are the cost reduction targets achievable?
3. Has express the resources to do the job?
4. Has the division the competence to do the job?
5. Has it got the will to achieve it?

The objective of making CNX profitable by 1982 was contingent in Lach's view, upon the achievement of ten specific goals:

1. To deliver what we sell;
2. To achieve what we plan;
3. To define our business and manage our product line;
4. To market more effectively;
5. To sell more and more effectively;
6. To determine the profitability of each product;
7. To upgrade management performance;
8. To win and retain the cooperation of employees and labour organizations in achieving the goals of the Division;
9. To realize the full benefits of local initiative;
- 10 To improve organizational effectiveness.

Some of the problems thought to plague CNX's performance are specifically mentioned in the document:

1. Organizational set up.
2. Lack of a commercial attitude generally.
3. Inadequate ressources in marketing.
4. Weakness of management especially at the terminal level.
5. Lack of essential data.
6. Lack of strong motivational forces.
7. Lack of a strategic plan and of the ressources to undertake strategic planning.
8. Weakness in selling.
9. Failure of marketing and operations to conceive their plans and integrate their programs.

In the period 1976 - 1978, a number of actions are taken to reduce the deficit:

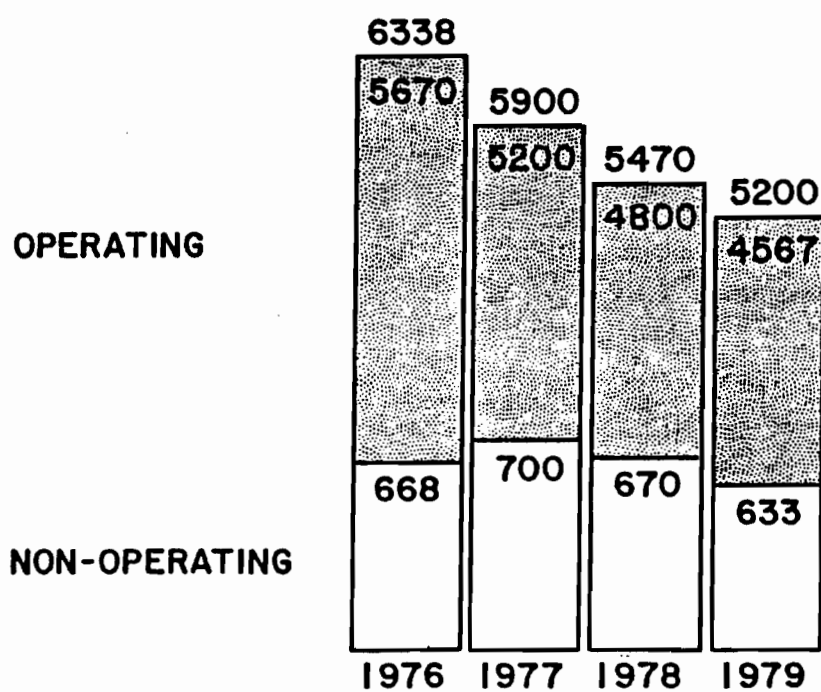
- Consolidation of a number of terminals and the construction of two huge terminals in Montreal and Toronto;
- An accelerated program of trailer substitution for box car, head-end cars and containers;
- The development of a computerized reporting, waybilling and accounting system called Trace;



- The discontinuation of the intra-Saskatchewan LTL Service;
- The introduction of volume incentive sales (i.e. Rapidex Special) and directional rates to eliminate or reduce empty backhaul movements;
- Introduction of manning standards and of indicators of equipment utilization;
- Reduction of manpower levels (Figure 9-4).

## 9.6 Conclusions

However, despite these efforts, CNX losses persisted, registering at \$36 million by the end of 1978. The Division has been given a clear mandate by CN's management: "to contribute positively to the corporate net profit position in the nearest future". Obviously, this is not happening and despite frantic efforts by CNX's management to correct the situation, the corporation's leadership was becoming increasingly skeptical as to its ability to turn the situation around.

FIGURE 9.4**MANPOWER****EXPRESS**

Source: 1979 - 1983 Five-years plan and 1979 Budget, October 1978

**CHAPTER - 10**

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**THE SYNCHRONIC ASSESSMENT OF CULTURE  
AND STRUCTURE OF CNX (1976-1979)**

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## 10.1 Introduction

This chapter will provide evidence of the operating culture at CNX around the time it became a division in 1976, until the turnaround was undertaken in 1979.

The working hypothesis is that by virtue of the almost total integration of the Express activities into the CN Rail operations, CN's culture may be considered as the culture of the CN Express Division. Traces of this culture will be sought in the tacit assumptions of CNX management's written analyses, diagnosis, recommendations and plans of action at that time. It will be sought in a number of other documents available at CNX, such as consultants' reports, materials on employees' opinions, union documents, etc.

As explained in the chapter on methodological considerations, the rationale for this particular investigation stems from the premise that culturally derived assumptions structured the cognitions of those responsible for the analyses and the formulation of diagnoses, solutions, strategies and plans of action at CNX at that time.

By 1976, the underlying assumptions and values of the CN culture, as inferred from the diachronic study described in chapters 7 and 8 were labeled as follows:

1. CN is in business for Canada, that is its first *raison d'être* is to be commercially viable;
2. The success in the operation of a state-owned corporation lays in its insulation from politicians of all ranks, in independence from governmental interference;
3. CN is a national carrier serving many geographical regions and providing services required by the public interest;

4. CN has a certain degree of control over its market environment, which entitles its occasional "hardnosed" approach vis-à-vis its clients;
5. CN is increasingly vulnerable to strong competitive forces in the Canadian freight market and needs to adopt as a result a more competitive behaviour;
6. revenues for commercial viability are no longer dependent on regulatory decisions and orders, but on CN's competitive behavior;
7. cost knowledge and control of operations are important prerequisites for economic survival;
8. volume and economies of scale are key factors for survival;
9. pricing, not service, is the primary means of coping with competition from other modes of transport;
10. planning for long-time horizons is essential to the good functioning of the organization;
11. CN is a big family; the organization is responsible to its members in terms of promotion, career development, present and future security;
12. the primary relationship between employees is "lineal", that is, hierarchical delineation of positions centralized decision-making and status differentiation are the natural order.

To the extent that these working hypotheses are valid, CNX's management documents and records should provide manifestations of these underlying assumptions of the CN Rail culture.

THE UNDERLYING ASSUMPTIONS OF THE CNX CULTURE  
DURING THE PERIOD 1976-1979

**10.2 CNX is in Business for Canada, that is, its First Raison D'Être is to be Commercially Viable.**

This first assumption, "CNX's first raison d'être is to be commercially viable", is manifest after 1976 in the intense preoccupation with profitability, the concern for putting CNX on a commercial footing. Indeed, the various five-year plans, as well as other non-financial documents of the period, all aim at achieving a net surplus and an acceptable "ROI". (The 5 years plans 1977-81, 1978-82, 1979-83). The "magnus opus" of the Vice-President Trucking and Express is dedicated to this objective.

"The key objectives then is not to produce a profit of at least x% a year after depreciation. It is to adopt or create a business that will yield such a return on average, taking good years with bad." (Internal Document: "Is the five-year plan achievable?" 20 Oct. 1977, pp. 48).

A 1978 document, which served as a basis for discussions on "product line decisions", states:

- "The mandate given to CN Express is clear: CN Express must contribute positively to corporate net profit position.
- According to our 1978-1982 five-year plan, this objective can be achieved by 1982.

Furthermore, the achievement of this minimal objective is not sufficient to enable us to meet the basic cost of staying in business. According to Mr. Lach (the Senior Vice-President for Trucking and Express), we must achieve an additional million in net profit over and above what is planned for the 1978-1982 period in order to justify staying in business". (Management Session on Product Line Decisions, May 8, 1978)

This leitmotiv runs through management documents of that period. "While improving, we must be tough-minded to get the desired results of profitability." (Notes on Strategic Planning Meeting, August 1979, p. 4). "Make it pay or get out of the business." (op. cit., p. 1)

It is clear that making CNX profitable and commercially viable is the unquestioned target. Much verbal energy is devoted to the articulation of this goal and of its feasibility.

### **10.3 CNX Is a National Carrier Serving Many Geographical Regions and Providing Service Required by the Public Interest.**

The Express activities came into being as the result of a gradual move from "rail to rubber", replacing uneconomic rail branch lines by a trucking service. Each such action was economically sound from the railways' perspective, as in each case, considerable savings ensued. Nevertheless, for the newly-created Express division, it meant not only the inheritance of an extensive and dispersed territorial coverage, but also a strong belief that CNX is a national carrier with a legal mandate to serve many geographical regions and provide services required by the public interest.

A typical manifestation of this assumption is offered in the following statement by the President of CNX (1976-1978):

"Only those ignorant of the Railway Act would make such a statement.<sup>1</sup> By law, CN has an obligation to accept all traffic offered and to provide service to all points listed in the ETA tariff. Discontinuance of service can be effected only with the permission of the Board of Transport Commissioners." (Letter to Financial Post, Jan. 5, 1981)

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<sup>1</sup> The statement refers to the comment of a reporter of the Financial Post to the effect that: "The management of CNX was unable to perceive what part of the market best-suited CNX." ("How Perron battled for CN Express Shake-up", Financial Post, Dec. 13, 1980).

This assumption recurs in the union's rethoric as well. This value, in their case, has a very functional role. The "public service" aspect of CN is used to defend the job security and well-being of its members.

You are aware that for some time, all of us have been concerned about the profit-oriented policies of the present CN Corporate body. Coupled with this has been a further concern that behind this is a motivation to return a source of great potential profit to the private sector of the economy. Equally, all of us have been aware of the great impact upon workers and the country resulting from a changed role which would result in the corporation becoming totally directed to maximizing profit to the detriment of public service. We will have to continue to be concerned and to speak out in support of a continuance of the historical responsibility of a government owned railway, and it is my opinion that our greatest problems may be ahead of us, not behind. (CBRTGW Internal Document, November 2, 1979).

The truth is that CN's legal obligation to provide service nationally applies only to those routes where express operations specifically replaced a rail service; there is no legal obligation however to offer service on a number of routes that were added independently of CN's abandonment of uneconomic branch lines.

On this issue, CN's Legal Department offers the following advice:

"As the jurisdiction of the Board over the rail operations of CN extends only to service between points on the railway, the C.T.C. would not have any jurisdiction over service provided to, from or between points which are not on the railway." (Internal Document, Legal Department, March 5, 1980)

Furthermore, even for the points labeled in ETA tariff, CNX is not held to offer service of its own, but only to insure that an adequate service is available to shippers for the territory stipulated in the tariff. An interlining system could just as well have been used in low density areas; independent truckers could have been hired as sub-



contractors through a system of add-on pricing<sup>2</sup>. But the conventional wisdom of a mandatory obligation to offer service "on a national basis" by CNX itself, has gone unchallenged for a long and costly period of time.

Interviewed on this issue, Robert Bandeen is blunt in his challenge of that assumption:

I was for closing down CNX, because if you want to start a trucking business, start better from scratch, not with 34 million deficit, with people who had no background in this line of business, no experience and a CN mentality of "service to the population". In 1974, when I became President of CN, I rejected the conventional wisdom. I asked them to show me where it was stated in the law that CN should offer community service. They could not. (Interview, 20 June, 1983)

Although aware of the poor competitive stance that results from this situation, it is to no avail as the assumption of a legal obligation to act as "a national carrier" is very strong.

The simulatenous working of this assumption plus the prevalent view that "volume and economies of scale are key factors for survival" (to be discussed hereafter) cast CNX in a self imposed posture of a generalist who is "everything to everybody", obliged to accept traffic from 0 to 20,000 lbs, and from all points of the Canadian territory.

"On ramasse encore des effets personnels", states an employee. "Un camion a passé toute la journée hier pour ramasser 4 ou 5 valises à St-Bruno". (Bonaventure Terminal, June 22, 1979, p.1)

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<sup>2</sup> This pricing system implies single rates from origin to destination, which consist of a CN rate to interline point with truckers' tariffs added on beyond that point.

"We should go after more specialized traffic, keep time to worry over customers who give us 100 packages a day, instead of running around serving people who give us traffic on an occasional basis". (Bonaventure Terminal, June 22, 1979, p.3)

#### **10.4 CNX Has a Certain Degree of Control over its Market Environment which Entitles its Occasional "Hard-Nosed" Approach Vis-à-vis its Clients.**

Like CN Rail, CNX entertains the belief of a certain degree of control over its market:

It is remarkable that without promotion and advertising and despite innovative and hostile Rate Action designed to drive shippers away, a service that has often been and too often still is, unreliable and less than satisfactory, has yet retained business worth close to \$100 million a year.

LTL Express retains for whatever reason, the loyalty of a large number of its users. Such users may have no alternative. Perhaps no other single carrier serves so extensive a territory or CNX services may be as good or better than others provide. (Internal Document: "Is the 5-year plan achievable?" 20 Oct. 1977, p. 40)

The concept of the "captive shipper" exists here as in the case of CN Rail. The assumption of "CNX's control over the market manifests itself in lack of concern for the market and its intricacies, in "an inward concern with moving shipments across the shed", as an executive puts it. (Internal Document, 20 Oct., 1977, p. 81).

"Express as a whole", writes an outside consultant familiar with CNX, "is not a highly commercially-oriented organization. Relatively few Express management personnel are truly commercial by experience or nature ... They show a limited ability to adopt a commercial posture and to cope with rapidly changing methods and modus operandi." (Peat, Marwick and Partners, 19 Sept. 1977, Appendix A).

Indeed, as any firm which nurtures the belief that, for whatever mysterious reasons, it has the power of retaining the loyalty of its clients, CNX shows no evidence of a true marketing philosophy or function. "Express is highly operation-oriented" remarks the same consultant. "Marketing has historically played a secondary role in the organization. The marketing and sales function has a low profile and relatively small budget, even compared to what is typical in a motor carrier organization". (Peat, Marwick and Partners, 19 Sept., 1977, Appendix A). "The CNX employees know that they need volume", an executive notes. "But they do not know how do we get volume? Where do we get it? Which shippers? What commodities? Which point to which point do we want to move it? Why? Which competitors do we take it from? At what price? And what will that do to our net? Will it help us to meet the cost of being in business or will deny us that help? (Internal Document, Oct. 20, 1977, p. 51).

The same executive notes later: "the organization must shift its focus from an almost exclusive inward concern, to the needs and wants of shippers and consignees." (Internal Document, Oct. 20, 1977, p. 78).

"We need a marketing department that can acquire, organize, analyse and interpret the essential data, that will provide us with up-to-date charts by which to steer." (Internal Document, Oct. 20, 1977, p. 50-51).

CNX acquires as a result of the working of this assumption the profile of a ponderous, stale, unresponsive organization. Abundant support for this allegation comes from various statements made by employees during their "breakfast" with the President of CNX in 1979. Here are some examples:

"CN's administration and management is like the Government; there is too much red tape, a waste of paper - printed matters are prepared, then it is decided to change everything and we have to throw it in the garbage". (Bonaventure Terminal, June 22, 1979, p. 2)

"Vous dépensez des millions de dollars pour améliorer les conditions de travail internes. Mais, si on ne sort pas chercher des clients, il n'y aura pas de paquets pour faire marcher toutes les nouvelles machines et autres installations que vous achetez". (Bonaventure Terminal, June 22, 1979, p. 2)

"Customers are calling and saying that CNX people don't know what are talking about. They are sent from one person to another". (Hamilton, May 31, 1979, p. 2)

"Salesmen do not know their product, they will tell a customer the delivery time Montreal to Saint John, N.B. - 2 days, we all know it takes 6 days; as a result, the customer takes it out on us, the Motormen". (Lachine, March 21, 1979, p. 1)

#### **10.5 CNX is Increasingly Vulnerable to Strong Competitive Forces in the Canadian Freight Market and Needs as a Result to Adopt a more Competitive Behavior.**

It seems contradictory in view of the above, but CNX, like CN, entertains simultaneously two opposite assumptions: according to one, CNX has a certain degree of control over its market environment; and a second one that "CNX is increasingly vulnerable to strong competitive forces in the Canadian freight market". The continuing existence of the former assumption is to a large extent explained by the usual "consciousness" lag with respect to change objective circumstances. The assumption of market control is the result of the initial monopoly conditions prevailing in the Canadian freight market, which were gradually replaced by a condition of dynamic competition. The latter assumption is obviously the reflection of this new situation. Evidence to support the existence of the latter assumption in the culture of CNX is numerous.

First, it is present in the increasing concern with the understanding of the reasons behind CNX's market share erosion. "Why has it (CNX) lost 4 million shipments since 1972? How much was price-related? How much was service-related? How much was time-related? Where did the shipments go? How many and what shipments were lost intentionally? How many shipments and what shipments by which shippers were lost without intention? (Internal Document, Oct. 20, 1977, p. 41).

Second, the assumption of vulnerability is evidenced by the Rate Action and Action Plan of 1977, which recommended a number of steps to increase the competitive stance of CNX. Of utmost importance is competitive pricing actions according to specific market conditions:

"It is essential that LTL Express build volume in selected traffic. Rate Action will be selective over the Plan period, with lesser increases on point to point high density lanes (where the competition is stronger) and heavier increases on traffic beyond those points (where costs are heavier and competition less direct) and on traffic that is disproportionately costly to handle (light weight, high bulk). Rate reductions designed to balance traffic will also be extended." (Internal Document, Oct. 20, 1977, p. 38).

The Action Plan for 1978 envisages also a number of measures intended to render CNX more competitive and less vulnerable to intense competition, as can be shown in this excerpt:

- The redefinition of services to be offered (product lines) and the markets to be served (geography, shippers, commodities, etc.
- The lowering of cost ratio as low or lower than the best operators in the industry.
- The acceleration of the development of a commercial attitude in all levels of management and among employees.
- The analysis and understanding of the changing needs of shippers.
- The development of strategic plans.
- The monitoring of the activities of competitors and the development of appropriate plans that anticipate or respond to their initiatives.

- The vigorous promotion of each product.
- The upgrading of the quality and effectiveness of management.
- The adaptation of the structure and conduct of labor relations to meet the needs of the Division as a large business in the trucking industry. (Internal Document, 20 Oct. 1977, p. 44)

The almost sudden awareness of CNX's financial predicament after its separation from CN fostered among managers a sense of urgency. Changes are needed, although there is no general consensus as to the nature and level of change.

Nevertheless, as early as 1977, the Vice-President for Trucking and Express proposes a drastic change in the structure, skills and culture of the organization or in his words, "in the personality of the Division" (Internal Document, Oct. 20, 1977, p. 81). Only such a fundamental change he states, will decrease the level of vulnerability of the CNX and improve its financial position.

This implies "a change from a fat, torpid, top-heavy organization to a lean and lively one, that is kept on its toes from many sources of local initiatives." (Internal Document, Oct. 20, 1977, p. 80). It implies "a change in the orientation of the Division from the inward concern with moving shipments across the shed to outward concern with the market, the shippers, the consignees and their needs." (Internal Document, Oct. 20, 1977, p. 81).

The document assigns to the leaders a paramount role to play in this metamorphosis. "It is the role of leadership", he notes, "to give shape and form and language to that emerging personality and to express in action the new values to be instilled". The document lists a number of slogans which might encapsulate what CNX should achieve:

- We deliver what we sell.
- We achieve what we plan.
- Performance yesterday was 96% or better all across the country. We are right on target this week.
- Lean and lively, friendly and helpful.
- Shippers tell us that we know what they want, before they know it themselves.
- Their people are on their toes, from the driver to the boss.
- One would never know it's a Crown Corporation.
- They've revolutionized the express business.
- Their standards are tough but they really care about their people.
- Clean and smart
- Crisp, results not excuses.
- Excuses never deliver.
- Delay delivers disappointment.
- Do you remember when we used to miss calls?
- I am glad to see the operating ratio is back to 80, from 80,01 last month.
- They're a good bunch to do business with. They never let you down.
- If they can't do it, they'll tell you. If they can, they do.  
(Is the five year plan achievable? Oct. 20, 1977, p. 81)

It is obvious that the sense of vulnerability and the need for action is present at CNX by 1977.

#### **10.6 Cost Knowledge and Control Are Important Prerequisites for Survival.**

It is an assumption which is undoubtedly founded in the reality of the trucking industry, which operates on very small profit margins. However, the relevance this assumption gains at CNX can be only understood in the context of the specific circumstances of CNX. Indeed, the fact that CNX operations are, to a large extent, the result of the gradual replacement of "rail by rubber" precluded any specific and in-

depth knowledge of the cost of the new service. Basically, the trucking service was known to be less costly than the rail service it replaced, but that was all.

As a profit (loss) center, CNX however becomes painfully aware that it lacks proper knowledge of its costs. As a result, the CNX management develops what is almost an obsession with this unknown variable. The concern is so deep that it blocks and delays action pending the acquisition of further cost information. "The biggest obstacle", an executive notes, "to adopting any working principles and strategies relative to a clearly perceived and marketable product line is our present ignorance of the profitability of existing products." (Internal Document, Oct. 22, 1977, p. 77).

Furthermore, there is a strong belief at CNX that the main cause of deficits lays with the lack of cost knowledge and control on the operation side. Indeed, the Marketing Department strategic option proposed in 1980 is based on the assumption that the marketing people were doing their job correctly, and that only vigorous cost actions are required to improve performance.

"As we must stay in the small market, and as Rapidex appears to be the most viable choice of a vehicle to do so, CN Express should begin to develop a detailed marketing plan and a lower cost operations capacity as soon as possible." (Internal Document, July 25, 1979, p. 8).

The poor revenue-cost relationship is not linked at that time to the policy of non-selectivity of clients to the extensive market coverage and to the generalist role CNX assumed as a result of the assumption that CNX must provide service nationally and accept volume in a 0 to 20,000 lbs. range. The implicit diagnosis of CNX's problems was that they stem from ignorance of relevant costs, from inefficiencies in cost control and from untapped sources of costs reductions on the operation side.



Somehow, a detailed knowledge of costs should lead to novel actions which would turn things around:

Pending the development of more specific and more certain means to increase profitability we must use whatever methods are available to us to assess the profitability of each of our present actions, however defined. For example, given the very wide range of activities of the 20 largest terminals, it would be possible to use regression analysis to determine the relative costs of each product line. Whatever the tools, and however appropriate the results, we must monitor product profitability on a month by month basis. Failure to do so can lead backwards from where we wish to go. (Internal Document, Oct. 20, 1977, p. 77).

Actions to reduce costs are continuously taken; the consolidation of terminals, the introduction of manning standard, improvements in utilization of the equipment, etc.

#### **10.7 Volume and Economies of Scale are Key Factors for Survival in this Business.**

The railway assumption that "volume and economies of scale are the key factors for survival" has structured much of the strategic behavior of CNX.

A first instance of the working of this assumption is the decision to integrate in 1961 the Express parcel service with the LTL service into what was called CN Express Freight. The underlying assumption of economies of scale, given the incompatibility of the two product lines, did not materialize. The integration only brought about higher rates and a lower level of service.

A second instance is CNX's decision to launch the Rapidex product in 1975. The basic and critical assumption guiding the Rapidex strategy was that product integrity could be preserved and operating efficiencies could be obtained through integrated LTL and Rapidex Operations. The pursuit of volume, regardless of desirable shipment charac-

teristics in terms of commodity, shipment weight, pick-up and delivery pattern, length of haul etc. is typical of a "common carrier" philosophy. "The CNX employees know that they need volume", one executive notes. (Internal Document, Oct. 20, 1977, p. 51). The volume assumption is underlying diagnostic statements and prescriptions.

"Rapidex growth has assured us the possibility of staying in the market over the longer term by allowing us to maintain market share. While our small business is not, under present operating cost characteristics financially viable, it is certainly that CN Express would have been and will be in a desperate situation without this business. We must stay in smalls for the foreseeable future, if we are to survive as a business". (Internal Document, A Marketing Rationale for Developing a Small Business, July 25, 1979, p. 5).

Actions are taken, on the basis of this assumption. Indeed, volume incentive rates are introduced in 1976, under the name of Rapidex Special, which compounded, as we shall see in chapter 11, the financial troubles of the CNX. The volume and economies of scale assumption precluded the right market positioning of CNX. As seen in the chapter on Industry Characteristics, the trucking industry does not show evidence of significant economies of scale as a function of raw volume. Moreover, the industry is a grouping of separate and distinct subindustries, each serving separate markets under different conditions and with different cost functions. The existence of several market segments requires separate operations; therefore if a general freight operator chooses to serve in more than one segment, he will tend to do so through separate operating divisions. The risks in attempting to compete in many markets with the same operating system are high; CNX assuming large economies of scale to be tapped, actually lost huge sums of money by handling shipments of Rapidex type (1-50 lbs) with an LTL operating system.

Furthermore, the implementation of the Rapidex and Rapidex Special strategy, in pursuit of volume, under conditions where 40% of CNX's LTL volume came from shipments in the weight brackets of 1-50 lbs, created a great deal of confusion about existing product lines and the definition of CNX's business.

As an executive puts it: "Performance failures are in part a result of weaknesses in product line management, which in turn stems from the lack of a working definition of the business we are in." (Internal Document, Oct. 20, 1977, p. 71).

"The data", the same executive notes "indicate that since 1975 shipments have averaged 160 lbs and that pieces have averaged 35 lbs. Rapidex defines itself as pieces under 50 lbs. Are there two product lines? Or is there one service moving traffic under two kinds of tariff? If so, why? (Internal Document, 20 Oct. 1977, p. 49).

But the "volume" assumption, unqualified for the peculiarities of the trucking industry and regardless of revenue and cost relationship continues to exist despite such glimpses of awareness. "LTL Express as a business is volume sensitive. The fixed plant and widespread Pick up and Delivery services need volume." (Internal Document, Oct. 20, 1977, p. 41). "Anyone in the Express or LTL business knows from experience that it is a volume business." (Internal Document, Jan. 5, 1981, p. 5). Such statements signal the continued relevance of this assumption. The volume assumption also underlined in part the strategic option proposed by the Marketing Department in 1980 to the effect that CNX should continue to be in both Rapidex and LTL operations.

Unfortunately, desiderata such as "we have to discourage the sales force from soliciting LTL small traffic for Rapidex rates, except when we run a significant risk of losing the business to another competitor" (Internal Document, July 15, 1979, p. 6), did nothing to change a sales force mentality from "volume is what counts" to "profit is what we want", especially when it has to sell two similar products under three different tariffs to the same buyers.

Nevertheless, by 1979, the following kind of statement creeps in more often in CNX's managerial lexicon: "we should put more emphasis on a better operating system and less emphasis on volume". (Notes on Strategic Planning, 7-8 May 1979, p. 3).

### 10.8 Pricing, not Service, is an Important Competitive Weapon.

The railways' obsessions with tariffs and the relegation of service to the role of a secondary competitive weapon in intermodal competition seemed to have pervaded Express activities as well; to this effect, an executive notes:

"To a large extent, the business has been managed through tariff action. LTL, the largest product line has not been advertised and promoted for several years". (Internal Document, Oct. 20, 1977, p. 56)

By 1977, there are glimpses of awareness at CNX, that its service is poor and that it must be improved if CNX is to survive in its present competitive environment.

"The service does not meet its reliability standards". (Internal Document, Oct. 20, 1977, p. 13).

"It is the unreliability and poor quality of service that has in part demoralized the sales force". (Idem. p. 23)

"In 1978, we must give high priority to ensuring the reliability of our service. Leadership must be intolerant of any failure to meet performance standards. Standards of performance must be set and demanded e.g. 80% of capability up to April 1978, 85% up to September, 90% thereafter. It should be made clear that our objective is 100%, however and nothing less is good enough". (Idem, p. 69)

Evidence that service was only secondary to pricing is provided by decisions such as the elimination of positive checking.<sup>3</sup>

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<sup>3</sup> Refers to the explicit recording of shipment at intermediate points on their way from origin to destination. These recordings are computerized and thus allow "tracing" of shipments, which means the identification of the location of any shipment at any time.

"The poor and unreliable quality of service was due to many factors, including the cost price squeeze that flowed from the very high wage increases of 1973 and subsequently. Positive checking was eliminated to cut costs - but it increased claims and led to split deliveries". (Internal Document, Oct. 20, 1977, p. 22)

Support for this lack of preoccupation with service comes also from employees' statements.

"A call on Monday gets picked up on Thursday; customer complains to motormen. I will call the office for information, I will be kept waiting for 15-20 minutes with the client looking on, sometimes the office will hang up, again we are against the wall with the customer." (Lachine, March 21, 1979, p. 1).

"Express is not giving service because too many things come into one terminal." (Lachine, March 30, 1979, p. 3).

"Difficult to trace Rapidex traffic. Very costly to accomodate customer" states an employee at Moncton Terminal. (April 25, 1979, p. 2).

"Taking a lot of time to write-up Rapidex". (Edmonton, April 9, 1979, p. 3).

"When Rapidex shipments are changed to LTL, they become impossible to trace." (London/Ont., May 30, 1979, p. 3).

The assumption that "pricing, not service, is an important competitive weapon" in intermodal competition, combined with a policy of client non-selectivity, stemming from the other assumption that "CNX is a national carrier serving many geographical regions, providing service to the population" and the generalist role CNX assumes in its quest for volume and economies of scale", resulted in poor service relative to competitors and self selection by clients and by type of business given to CNX.

### 10.9 Planning for Long-Time Horizons is Essential to the Good Functioning of the Organization

We have seen that the condition of "long range planning as essential to the good functioning of the organization" is an assumption founded in the reality of the railway business, characterized by high ratios of fixed costs in total costs, large capital investments, long periods of time required for implementation of changes in assets deployment (equipment, trackage...) and relatively stable markets in the short run.

Due to the almost total integration of the express activities in railways operations, the assumption that "long-range planning is essential to the good functioning of the organization" is a cultural stimulus that impacts on CNX's managerial actions as well.

Indeed, CNX's management devotes a considerable amount of time and energy to prepare action plans that unfold on the ensuing five years. These are filled with good intentions and a perspective that becomes rosier at it reaches further out in time. Then, it is only a matter of achieving what was planned. The stern exhortations to do just that abound:

"To market more effectively, the appointment of a Director of Strategic Planning is required". (Internal Document, Oct. 20, 1977, p. 97). "The essential element, however, is setting specific sales and costs targets and developing strategies and plans to achieve them" (idem, p. 98).

That "planning is a cure all device" is clear from other statements such as:

We achieve what we plan. And by implication, if we don't plan we don't achieve. All ten goals for 1978 must be planned and achieved. (Idem p. 101).

"Prime responsibility for each goal must be assigned and those people must plan, initiate and act" (Idem p. 99). "We plan for results." (p. 101)

"For 1978 we should set ourselves the target of achieving \$5M more than is projected in the 5 year plan. Once the revenue targets and loss restrictions have been set, the target operating ratio can be determined. From that it would be possible to set target operating ratios for each terminal, so as to engage fully the energies and initiative of Terminal Managers" (p. 96).

"Plans for achievement of targets must be specific, thorough and made with a strong intention and commitment to achievement of the targets" (p. 93).

It is clear that the 5 year Plan Revenue/Volume projections must be increased significantly. We must start that process in 1978, not only as part of the longer term approach (which is very important) but also to ensure that our achievement in 1978 exceeds (or at the inconceivable worse) matches our revenue projections for the year" (p. 93).

"One key responsibility, for which preparatory work must be undertaken in 1978, is planning, to exploit the licences of CN Express and of the subsidiary trucking companies" (p. 107).

"During 1978, planning for the more definitive profitability measures must be undertaken" (p. 111).

In an industry characterized by flexibility and quick action, these statements seem pretty inappropriate, to say the least.

#### **10.10 We Are a Big Family**

We found that the "family assumption" so much a part of the CN rail culture is also present at CNX.

This assumption is a product of both successive leaders' value systems and management's vying with the union for the loyalty and attachment of employees.

The same influences seem to have been at work at CNX.

"It is urgently necessary to expand the volume of business and thus to create a positive environment of growth and success. Achievement of a positive environment is a longer term goal but it is essential to the Division's gaining the understanding and cooperation of labor, and hence a willingness to break away from inter-divisional seniority groupings that are inimical to employees' identifying with the Division." (Internal Document, Oct. 20, 1977, p. 114).

As CNX abides by all of CN's personnel policies and offers the same employee benefits, the identity on this level between CN and CNX is total, even after Express operations have been regrouped in a so-called autonomous division.

It is very important at CNX to win and retain the cooperation of employees and labour organizations through good, reliable and regular communications about the objectives and intentions and plans of the Division, well delineated hiring standards and procedures, careful and sensitive handling of lay-offs, including flexibility to meet special circumstances and avoidance of mindless routine, skillful and sensitive handling of grievances, skillful and sensitive supervision, reward and recognition of employees and improvement of the quality of work life. (Internal Document, Oct. 20, 1977, p. 114-115).

Above all, the same executive notes, the Division must be seen to act reasonably and sensibly, and humanly. For example, routine action that sees a lay-off notice handed to an employee with longish service and 3 months to go to retirement must be avoided. Active efforts to help uprooted or laid-off employees must be seen to have been made. There must, for example, be quick and accurate response to requests for pension information from an employee considering early retirement. Opportunities for transfer should be thoroughly explored and a lay off detailed with a possible opening when this can be reasonably achieved. Employees must see and feel that we are concerned careful, helpful and human...



Supervisors must know that their performance will be assessed in these matters as in others ..... We must plan and manage workforce adjustments to the best of our ability, above all with care and concern, making extraordinary efforts to look after our people". (Idem, p. 66-67).

Satisfied employees make a significant contribution because "CN Express is a business that is utterly dependent on the good will of the employees. To gain and keep that goodwill is essential. The task is incredibly difficult in a period of heavy lay-offs and disruption in established ways of doing business. But it must be done. It is essential to the creation of an efficient and profitable business". (Internal Document, Oct. 20, 1977, p. 67).

The concrete materialization of all these "shoulds" and "do's" is a different issue. The opinions expressed by CNX employees during the "Breakfast with the President", in 1979, provide a different reality.

#### 10.11 The Primary Relationship Between Employees is "Lineal", with Hierarchical Authority, Centralized Decision - Making and Status Differentiation

The assumption of top-down relationships at CN Rail is largely the consequence of its historical roots and of its particular technology. CNX is built on the same set of assumptions. Indeed in 1976, CNX is organized with a centralized line of authority and a four-region set-up, each region to be managed by a regional manager with considerable power but only limited accountability. In this design, terminal managers have limited operational responsibilities, are accountable for the control of expenditures only.

"There is at Express", an outside consultant notes, "a tendency towards a centralist type of control that does not encourage initiative or excellence in the field (circumstances more than personal propensities may be the cause of this centralist tendency)". (Peat, Marwick, and Partners, Sept. 19, 1977, Appendix B).

A document signed by several industrial engineers who had worked for CNX gives reasons for their refusal to accept positions with Express:

"The many levels of approval necessary for a project, often weaken it to the point of ineffectiveness. This weakening often occurs as a result of the various levels of management removing all possibilities of implied criticism or risk in implementation. The blame for mistakes which must occur when new ideas are tried tends to be passed to the lowest level, regardless of actual fault. This is a factor we notice in management generally, as well as projects." (Internal Document, 1978).

The centralist tendency, the hierarchical relationship existing at CNX are also lamented by employees.

"It is good to be able to talk and discuss with the President. It is something we have not done in the past", states an employee at the Lachine Terminal during the Breakfast with the new President of CNX. (In March 30, 1979, p. 1).

or

"Éliminer les fausses impressions que les employés ont des cadres en instaurant des discussions plus ouvertes et plus fréquentes entre les deux groupes. (Bonaventure Terminal, June 22, 1979, p. 5).

"Les gens de la région ne connaissent pas le siège social, c'est-à-dire ce qui se passe là-bas. Il manque trop de communication à ce sujet." (Bonaventure Terminal, June 22, 1979, p. 5).

"On doit souvent se fâcher et sauter des échelons pour avoir de l'action. Ceci cause des froids entre l'employé et le superviseur qu'il a dû ignorer." (Bonaventure Terminal, June 22, 1979, p. 6).

"A 75¢ broken bottle claim has to go through the process the same way as a \$500 claim. The motormen could settle the 75¢ claim on the spot. At one time the Agent could settle claims up to \$50. The process costs us more money than what the claim is for. Why not settle locally? (Moncton Terminal, April 25, 1979, p. 3).

"Employees are not consulted: 30-35 years of experience ignored - result is not always what is expected." (Moncton Terminal, April 25, 1979, p. 1).

Finally, an employee suggests:

"One hour a week, every week, a man from each section should be brought in to sit down with a senior supervisor from that department for discussion. I guarantee, it brings together gives the employee the feeling that he is helping to run the section. Now, the employee hears more than just "orders"... Would take the walls away ... Cela nous aiderait à se vider - pas seulement écouter "later" (qui n'arrive jamais) - (Bonaventure Terminal, June 22, 1979, p.7).

By 1977, decentralization, closer integration of operation and sales, delegation of authority and accountability at the terminal level, local initiatives, are seen as desirable for the Division, at least by the senior Vice-President responsible for trucking and express operations.

"Local initiative must be nourished, fostered, encouraged. Of course, it must be tutored, guided and productive", this Vice-President notes. "Those who cannot effectively and economically exercise initiative must be removed quickly." (Internal Document, Oct. 20, 1977, p. 120).

The authoritarian leadership style must be changed for one which encourages the expression of initiatives at lower echelons.

"It is the responsibility and the challenge of the Regional and Headquarters' leadership and direction to realize the full potentiality of local initiative in all its dimensions and areas of influence."

"It requires of the top-management a change in leadership and management style... Some degree of error must be accepted as we encourage the exercise of local initiative. A mistake in judgment must be encouraged as to initiative and corrected as to judgment", notes the same executive. (Internal Document, Oct. 20, 1977, p. 117-119).

## 10.12 Conclusions

The close reading of CNX texts in search for the tacit, structural assumptions of those responsible for the analyses and formulation of diagnoses, solutions, formal strategies and plans for action, has proved most useful.

Indeed, this enquiry has shown that there is some validity to the working hypothesis according to which CN Express, as an emanation of CN Rail, will show evidence of a culture similar to that of CN.

This synchronic assessment of CNX's culture is supported by the numerous statements made by various actors, CNX managers of all levels, consultants and employees.

Of the twelve fundamental assumptions that seem to capture the essence of CN's culture in 1976, manifestations for ten of them were found in various documents and management artefacts of CNX.

They are:

- 1) CNX is in business for Canada, that is, its first *raison d'être* is to be commercially viable.
- 2) We are a national carrier, serving many geographical regions and providing service required by the public interest.
- 3) CNX has a certain degree of control over its market environment, which entitles a hard-nosed approach vis-à-vis its clients.
- 4) CNX is increasingly vulnerable to strong competitive forces in the Canadian freight market, and needs to adopt as a result, a more competitive stance.
- 5) Cost knowledge and control are important prerequisites for success.

- 6) Volume and economies of scale are key factors for economic survival.
- 7) Pricing, not service is an important competitive weapon in intermodal competition.
- 8) Planning, for long-time horizons, is essential to the good functioning of the organization.
- 9) CN is a big family.
- 10) The primary relationship between employees is hierarchical with centralized decision making and status differentiation.

Two assumptions could not be traced through the reading of CNX's managerial documents, that is "Revenues for commercial viability are no longer dependent on regulatory decisions and orders but on CNX's competitive behaviour" and "The success in the operation of a state-owned corporation lays in its insulation from politicians at all stripes, in government independence".

It should be pointed out however, that these ten assumptions which form the core of CNX's worldview around 1976, are not devoid of internal tensions. On the contrary, they contain inherent contradictions stemming from the conflictual nature of a number of assumptions. Indeed, it is difficult to reconcile the view that "CNX is in business for Canada, and, its first *raison d'être* is to be commercially viable, and the view that" CNX is a national carrier, serving many geographical regions and providing service required by the public interest". Or, that "CNX has a certain degree of control over its market environment", and that, "CNX is increasingly vulnerable to strong competitive forces in the Canadian freight market". The dynamic, dialectic tension among these assumptions translates in different degrees of emphasis in times and in varying modes of reconciliation; and it also means different degree of attachment to different assumptions. For example, the "big family" assumption is not too attractive to union leaders and to rank and file employees, but on the other hand, CN's "public service role" is very important to them as a functional rempart against management's commercial velleities.

**CHAPTER - 11**

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**EVENTS, DECISIONS AND ACTS DURING CNX'S TURNAROUND:  
A CHRONOLOGICAL RECORD: 1978-1982**

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## 11.1 Introduction

This chapter contains a chronological record of the events, decisions and acts from the end of 1978 to the end of 1982, the period during which a strategic turnaround was attempted at CNX. Organizational "facts" of the period are presented without interpretation or integration at this juncture.

This period covers only what is called in the strategy literature "the recovery period", or "upturn phase", (Schendel, Patton and Riggs, 1976; Wyckoff, 1976; Biteman, 1979; Bibeault, 1982) that is a period of high managerial activity aimed at turning the company around. The other two classic phases of a turnaround, described in the strategy literature, as the "decline period", and "the crisis" have been discussed in Chapter 9 of this thesis, titled "Synopsis of the CN Express Activities to 1979".

In what follows therefore, the focus is on the main events, decision and acts beginning in July 1978, when Mr. Claude Perron was appointed acting president of CNX. Before attempting this chronological summary of the period 1978-1982, some information on Mr. Perron's career and management philosophy might be useful for a better understanding of his actions.

Mr. Perron, born in 1942 in Chicoutimi, Québec was educated in management at the Ecole des Hautes Etudes Commerciales in Montreal and obtained a M.B.A. from McGill University. In the course of his undergraduate studies, he worked during summer months for various firms, including a stint at CN.

After his graduate studies, Mr. Perron worked in the financial department of Dominion Textile; he subsequently became a professor of management at the newly formed "Université du Québec à Montréal" where he went on to hold various administrative positions including vice-dean for economic and management studies.

Mr. Perron often refers to this period as very formative both of his style and philosophy of management. The Université du Québec was, in its infancy, a somewhat more unruly and radical place than most universities. The professors' and other employees' unions were very militant; students were particularly mercurial and jumpy. All in all, this environment seems to have fostered an acute sense of compromise, a natural habit of consultation, an unassuming and unpretentious demeanor as a manager who is well aware of the limits of managerial power.

In 1974, with the assistance of the Université du Québec and at the urging of several company executives, he took a leave of absence from the university to launch a management education center (Centre International de Recherches et d'Etudes en Management, known simply as CIREM). This center was to offer management development programs for middle level French-speaking managers of large Canadian and multinational corporations. To get this center going and operational, Perron had to work with a large number of parties and to put together a viable coalition of interests. This proved a difficult task at the beginning, but in the end, CIREM became a very successful organization that is still functioning and thriving to this day. CIREM's board of directors was made up of top executives of the largest corporations headquartered in Montreal. Those executives had succumbed to the extensive wooing and beseeching, direct and indirect, that Perron used to get them on his board. In the course of this process, he got to know well Robert Bandeen, the Chief executive of CN and George Lach, the senior Vice-President of CN in charge of all trucking and express operations. This acquaintanceship led to a job offer as Vice-President for marketing at CNX. Perron joined CNX in that capacity in January 1978 and became acting president in July 1978.

#### July-December 1978

Over a six-month period, Mr. Perron replaced most of the top managers of CN Express. However, the new team was composed of people coming from the CN organization. One position, that is Vice-President Marketing remained vacant for the time being.



The members of the team are: a senior officer, engineer by profession, who worked for CN since 1950; his last position, before being appointed Vice-President Operations, Express, was Director Corporate Planning at the CN Headquarters. A new position, Executive Assistant to the President, is filled by a long time CN Express manager who started working for CNR in 1942 as a clerk in the Express Department; by 1978, he had worked his way up to Regional Manager Express in the Maritimes. Another member of the team had started working for CN Rail in 1966 at the Internal Audit in Moncton; he became Director of Accounting and Finance at CNX after a seven-year stint in the corporate accounting group. As Manager, Personnel and Labour Relations, Perron chose a long time CN employee with considerable experience in the Personnel and Labour Relations.

A number of personnel changes were also made at the regional level.

#### August - September 1978

Mr. Perron pushes for the completion of work underway to create a sophisticated cost accounting system: TLTPS (Traffic Lane and Terminal Profitability System). He also hires outside consultants to carry out a marketing audit of the division.

#### January 1979

Claude Perron is officially appointed president of CN Express after a six-month period as acting president.

#### February 1979

In a newsletter issued by the union, CNX employees are informed of the union's request to the Minister of Labour to establish a commission to investigate the recent layoffs<sup>1</sup>. The union also announces its

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<sup>1</sup> These layoffs did not result from any turnaround action; they were merely (in CNX management's view at least) the normal post-Christmas layoffs as the volume of business falls off in January.

intention to negotiate "a historical contract - one that contains a real job security agreement, major benefits paid for sick leave accumulated, and improvements in the pension plan". (Newsletter, Feb. 1979. p.2).

The letter urged employees to get active politically as individuals and to remind the public that the loss of their jobs means the loss or reduction of their public service.

### March 1979

A three day executive planning session entitled "How to turn CNX around" is held at Hilton - Dorval. The participants are coming from headquarters and regional management with outside consultants as moderators.

A number of "challenge areas" are identified for future plans of action. They are:

1. Transforming CNX in Harmony with the Market
  - Need for product line & market rationalization.
  - Inability to compete with specialists.
  - Lack of market information.
  - Lack of a proper costing system.
  - Poor image of CNX among customers and potential clients.
2. Overcome Long Term Obstacles to Success
  - Integrate all CN trucking services.
  - Status diminished within CN because of continued unprofitability.
  - Inappropriate work rules and practices.
  - Political/regulatory freedom.
3. Managerial Discipline and Efficiency
  - Insufficient managerial discipline.
  - Poor attitude and self image.
  - Tolerance for mediocrity.
  - Excessive administrative staff.

#### 4. Rational Organizational Effectiveness

- Conflict over accountability, roles and authority.
- Resistance to change.
- Improve effectiveness of first line supervision and other managers.

#### March - June 1979

Mr. Perron visits a number of terminals across Canada to talk to people in the field and understand as he puts it "what is this organization all about". The program is called "Breakfast with the president". These discussions with employees in the field are carefully recorded and a detailed summary of issues raised is prepared after each meeting.

The records of these meetings reveal a number of problems:

- 1) The employees in the field perceive CNX as a bureaucratic, centralized, fat, top-down, inefficient organization:
- 2) The employees in the field are very critical of CNX's market position; it is "everything to everybody", a generalist which accepts any traffic from 0 to 20,000 lbs, from any point in Canada.
- 3) The employees lament the poor service CNX offers to clients, in terms of speed of delivery, damages during loading, unloading and transportation, information to clients, answers to claims etc.
- 4) Employees in the field, claim there is a lack of training programs, which translates into unskilled and unproductive workers.

- 5) Employees emphasize the lack of motivation and commitment and the low morale among CNX employees due to a number of reasons: the absence of a merit system for selection and promotion, the recent lay-offs or the forced early retirements<sup>2</sup>, the lack of a reward system for those who work hard and the expected negative impact of the Trace system<sup>3</sup> on the number of jobs.

#### April - June 1979

Mr. Perron, with the assistance of an executive recruitment firm, searches for a V.P. marketing; he interviews several candidates for the position and eventually selects a manager in the marketing department of the Québec division of the Xerox Corporation. The new executive joins CNX at the beginning of July 1979.

#### July - August 1979

During this period a number of strategic meetings are held to formulate a strategy capable of turning around the financial situation of CNX. The Marketing group proposes the following diagnosis of the problems of CNX.

- a lack of product definition, which impacts on operations and marketing planning;
- a lack of marketing direction;
- an underestimation of the problems involved in implementing Trace
- an extensive light density network;
- high backhaul costs;
- perceived and real constraints in making manpower adjustments;
- revenue/expense inflation imbalance;
- operational inefficiencies.

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<sup>2</sup> It should be noted that the plan and budget for 1979 were based on a level of operating manpower of 4,567, as compared with 4,800 for 1978, a decrease of some 5%. (See figure 9.3)

<sup>3</sup> A computerized operating and accounting system which has been under development since 1977.

Based on this diagnosis, they proposed a programme of actions aimed at the "development and implementation of a separate operating system for Rapidex (where traffic density warrants) and the decentralization of responsibility and accountability as well as the sales force, at the terminal level, for the LTL line". The long term success of CNX is expected to come from such programs as:

- deriving maximal benefits from Trace capabilities;
- mounting a more aggressive and better directed marketing effort;
- the improvement of operational efficiency;
- the reduction of administrative overheads;
- the matching of inflation effects on expenses and revenues
- route rationalization.

The means proposed by the Marketing group to separate Rapidex from LTL were the following:

- 1) to give reliable service for small parcels shipped as LTL to encourage customers to continue using this more expensive service;
- 2) to discourage the sales force from soliciting LTL small parcels traffic with Rapidex rates<sup>4</sup>, except when CNX runs a significant risk of losing the business to another competitor." ("A marketing rationale for developing a small business", 25 July 1979, p. 6).

Furthermore, to make the "smalls" business viable, the marketing department proposes a number of pricing and cost actions: "Our strategy will be to progressively raise the prices of Rapidex in order to derive maximum revenue from captive business and to profit from customers' lack of awareness of alternatives". (Idem)

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<sup>4</sup> LTL rates for the range 1-50 lbs range, which overlaps with the definition of the Rapidex product, are much higher than those for Rapidex. As a result, shippers aware of this rate differential would pressure salesmen to get Rapidex rates for an LTL service. Salesmen, being monitored on volume of business obtained, would give in to such pressure.

During strategic sessions in July and August 1979, a number of constraints on the capacity for changes at CNX are identified. They are: 1) employees' established ways of doing things, 2) the relative mediocrity of managers, 3) the union's reaction and 4) external political pressure. In this respect, a CNX executive writes:

"Any change in Express will be difficult to carry through effectively due to age, attitudes and relative mediocrity of management. Resistance will also be encountered in the work force. Any implementation strategy must consider this element. It will be necessary to develop an effective communication strategy, do managerial training in this area, and set up mechanisms to force change where necessary. Consideration should probably be given to employing a manager in the Personnel Department on a full time basis to direct this aspect." ("Random Reflexions on CN Express Strategy Development", July 18, 1979, p. 2)

On the issue of lay-offs, the same executive notes:

"Any strategy to improve CN Express's financial position will require a severe reduction from current manpower levels. This applies both to schedule and non-schedule (including management) employees. Generally, people tend to avoid thinking about subjects that are so unpleasant and fraught with personal risk. It will be our task to keep this reality present in our minds and to be explicit on this subject, both with our managers and with the union. This should allow us to plan for employee severance and deal with it in the most humane manner possible".

Commenting on a final issue, he notes:

"Any serious strategy to turn around Express will meet with external pressures of a major nature. A review of regulatory restrictions and possible political difficulties may be necessary at this time in order to anticipate potential problem areas. If the scope proves to be important, a responsible manager should perhaps be nominated to deal with them. This is proposed in order to free us up for concentration on the major task". (Idem, p. 5)

October 1979

Mr. Perron creates a task force composed of himself, his executive assistant and two outside consultants, to diagnose anew the roots of the Division's problem and propose a viable strategy, which can turn-around the financial situation of CNX.

October - December 1979

The task force visits a number of terminals and interviews managers and employees at all levels, and comes up with a diagnosis and a set of options for CNX's problems. The task force favors a strategic option that calls for a market concentration on LTL.

December 1979

The Marketing group produces a revenue budget for 1980 and several supporting documents: "The 1980 Pricing Actions", "Product and Target Market Definition", "The Size, Development and Organization of the Sales Force". The critical underlying assumption of all these documents, is that CNX will continue to operate in both LTL and in the small Rapidex segments of the market and will improve its position by the simultaneous actions of higher prices and better operating costs.

These two options (the Marketing group's and the task force's) are in conflict and stimulate sharp debates among managers at senior levels.

During this month, discussions were also held between the management of CN Express and the leadership of the Canadian Brotherhood of Railway, Transport and General Workers, with respect to the establishment of joint labour/management committees at the terminal, regional and national levels. These committees would address aspects of production and manpower needs, review financial results, and performances, and arrange for retraining and relocation of employees facing lay-offs as a result of actions contemplated for 1980.

January 1980

The task force presents its findings to the President of CN Holdings and his staff. They provide a diagnosis of CNX's problems and a set of possible strategic options, including the one proposed by the Marketing Department. The task force indicates that it favors and recommends an overhaul of the Division, through a market repositioning of CNX and the concentration on LTL business, and an in-depth reorganization to adjust the company to this strategy. Here are the main elements of the task force's diagnosis and recommendations as contained in a document titled "Rationale and Objectives for a Major Restructuring of CN Express". (Claude Perron, President of CNX, March, 1980).

### **11.2 The Diagnosis of CNX's Problems Made by the Task Force**

According to the task force, CN Express' problems arise primarily from three basic sources: (1) a mandatory obligation to provide service to an extended, low volume geographical market and to a large number of small-volume shippers, which significantly impacts on the revenue/cost relationship and negatively affects the quality of service; (2) an organization structure not suited to the character of the small parcel and LTL industry and the lack of proper financial and operating systems; and (3) a fundamental error in CNX's market positioning. These factors resulted in CN Express becoming a high cost operator with a low quality service relative to its competitors.

#### **11.2.1 The Extended Market Coverage as a Source of Problems**

As a CN Division, CN Express has inherited the CN obligation to provide service to all points listed in the ETA tariff and accept all traffic offered. Many of the geographical points served by CNX have peculiar characteristics, which significantly impact on the costs and quality of the service provided by CNX.

First, many points served are small communities with relatively low daily volume which means that a high proportion of CNX intercity



shipments has to move through break-bulk operations; as a result also, the costs of the Pick up and Delivery (P & D) fleet are high relative to revenues and back-haul volume is not adequate.

Second, on average, the shipments originating from or destined to small communities are lighter than what is generated by industrialized regions. Consequently, the average weight (and revenue) per shipment is lower at CNX than it is for competing trucking companies.

The operating practices in large centers are also a source of problems for CNX. First, CNX inherited a large number of on-hand points which extend its coverage to the peripheral areas of major centers. Second, its policy of non-selectivity of clients, modeled on the rail tradition, resulted in CNX obtaining an inordinate number of "casual" shipments, that is shipments from customers who have a very low yearly volume of shipments.

Table 11.1 shows that for a one-month period, CNX handled shipments from almost 150,000 different shippers but fewer than 10% of them provided a total business worth more than \$1,000 during a whole year.

The discriminating practices adopted by competitors (either through tariffs [100 lb minimum charge] or through operational policies to discourage casual business [long delays, etc.]) coupled with the non-selectivity policy of CNX, would tend to bring to CNX a large number of such shipments which are costly to serve (high stem time, high office costs). And a further consequence is that the CNX system is cluttered by thousands of clients with a small volume of business which lowers the quality of service that can be offered to large-volume shippers; bad business then chases out good business sensitive to quality of service.

Tangible evidence of the impact of this phenomenon on the quality of service offered by CNX is provided in table 11.2. It clearly shows that even shippers who still use CNX's services give it a much lower rating than competitors get from their clients. As for non-users of CNX's services (and therefore potential customers) their assessment of CNX is even more negative (Table 11.3).

**FIGURE 11.1**

**ORGANIZATION STRUCTURE AT THE TIME THE CNX DIVISION WAS CREATED 1976**

TOTAL ANNUAL VOLUME IN \$	NUMBER OF CUSTOMERS										TOTAL %
	EASTERN	MONTREAL	QUEBEC	N.E. ONTARIO	TORONTO	S.O. ONTARIO	PRAIRIES	C.B.	TOTAL SYSTEM	\$1,000 %	
\$ 100,000	9	9	1	4	20	8	7	5	3	,5	,1
\$ 50,000 - \$ 99,999	15	16	2	17	61	32	20	15	178	1,2	,1
\$ 20,000 - \$ 49,999	57	74	21	42	165	99	54	65	577	3,9	,4
\$ 10,000 - \$ 19,999	100	74	34	105	300	178	127	108	1 026	7,0	,7
\$ 5,000 - \$ 9,999	211	285	57	138	450	313	247	252	1 953	13,3	1,3
\$ 1,000 - \$ 4,999	1 339	1 488	559	847	1 876	1 660	1 305	1 852	10 926	74,2	7,3
TOTAL											
more than \$ 1,000	1 731	1 946	674	1 163	2 872	2 290	1 760	2 297	14 733	100,0	9,9
less than \$ 1,000	12 543	21 649	7 488	9 098	22 444	17 895	18 635	24 301	134 053		90,1
GRAND TOTAL	14 274	23 595	8 162	10 261	25 316	20 185	20 395	25 598	148 786	—	100,0
% TOTAL	9,6	15,8	5,5	6,9	17,0	13,6	13,7	17,9	100,0		

**TABLE 11.2**  
**PERCEPTION OF CN EXPRESS AND**  
**OF OTHER TRANSPORTATION COMPANIES**

	(1) Evaluation of CNX by users	(2) Evaluation of their carrier (by other clients than CNX)	(1) is inferior to (2) by:
. It covers the geogra- phical points which are important to me	3,43	4,13	17%
. Frequency of service	3,25	4,17	22%
. Competitive tariffs	3,18	3,89	18%
. It accepts shipments of small size	3,14	3,91	19%
. It informs its clients of new services	3,08	3,79	19%
. Modern progressive company	3,02	3,90	23%
. General reliability	3,00	4,18	28%
. Availability of agents	3,00	3,82	22%
. Quality of contacts with agents	2,98	3,77	21%
. Minimum of losses and damages	2,95	3,94	25%
. On time service	2,91	4,04	28%
. Rapid tracing capacity	2,67	3,83	30%
1 = Mediocre    2 = Fair    3 = Good    4 = Very good    5 = Excellent			

**TABLE 11.3**  
**PERCEPTION OF CN EXPRESS**  
**AMONG USERS AND NON-USERS OF THEIR SERVICES**

	(1) By CNX customers	(2) By non-users	(1) is better than (2) by:
. It covers the geographical points which are important to me	3,43	3,18	8%
. Frequency of service	3,25	2,70	20%
. Competitive tariffs	3,18	2,61	22%
. It accepts shipments of small size	3,14	2,82	11%
. It informs its clients of new services	3,08	2,76	12%
. Modern progressive company	3,02	2,78	9%
. General reliability	3,00	2,68	12%
. Availability of agents	3,00	2,57	17%
. Quality of contacts with agents	2,98	2,44	22%
. Minimum of losses and damages	2,95	2,56	15%
. On time service	2,91	2,48	17%
. Rapid tracing capacity	2,67	2,11	27%
1 = Mediocre    2 = Fair    3 = Good    4 = Very good    5 = Excellent			

### 11.2.2 The Organizational Structure of CNX as a Source of Problems

The gradual conversion of Express from a rail-based activity to a trucking enterprise led to the adoption of an organization structure and management methods modeled on CN Rail, which are ill-suited to the particularities of a trucking operation. Indeed, the first step in the establishment of the CN Express Division in 1976 has been to centralize authority and to establish four regions: Eastern region, Central region - Quebec, Central region - Ontario and Western region, typical of the CN Railway organization (See Figure 11.1).

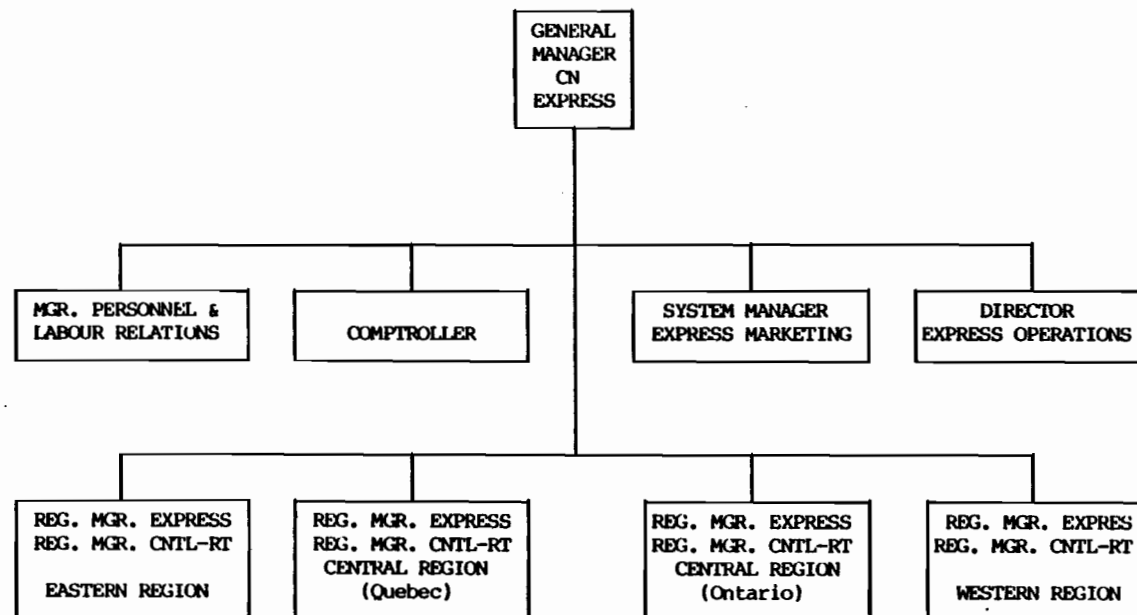
Terminals are treated as stations in a rail operation. They are considered as loading and unloading facilities. Terminal managers are responsible only for expenditures not for revenues. They have no responsibility for sales and sales force; although efforts have been made to strengthen the sales force, salesmen are present in only 22 of the 50 terminals; and these salesmen report to a regional sales manager, not to the manager of the terminal where they are posted.

Of course, CNX has never severed its administrative connections to the CN Corporation. From a cost point of view, there were certain advantages of being tied to CN (e.g. cost of capital). However, these advantages were outweighed by disadvantages, such as: the higher cost of CN employee benefits, rigidities in manpower management as a result of labor contracts negotiated by the corporation with few allowances for the special requirements of a trucking operation.

Because CN was providing CNX with accounting and other administrative services, the essential instruments required to properly manage a trucking company of the size and complexity of CNX, were not fully developed nor was the related internal expertise. Consequently, the system lacks the organization and tight control of responsibilities that are required in a large trucking operation.

**FIGURE 11.1**

**ORGANIZATION STRUCTURE AT THE TIME THE CNX DIVISION WAS CREATED 1976**



These two fundamental characteristics have set in motion pernicious dynamics that push CNX deeper and deeper into economic problems (Fig. 11.2). This vicious circle is illustrated in Figure 11.3. The extended market coverage (both geographically and in terms of its acceptance of all "casual" business without selectivity) and some cost rigidities inherent to CN rail but transported to CN Express by a common labor contract, result in a poor service and a high-cost operations. From that point on, unable to compete on service, salesmen compensate by offering price advantages to maintain their sales volume; business that is not attractive to competitors is pushed towards CNX and sought by its salesmen, and so on.

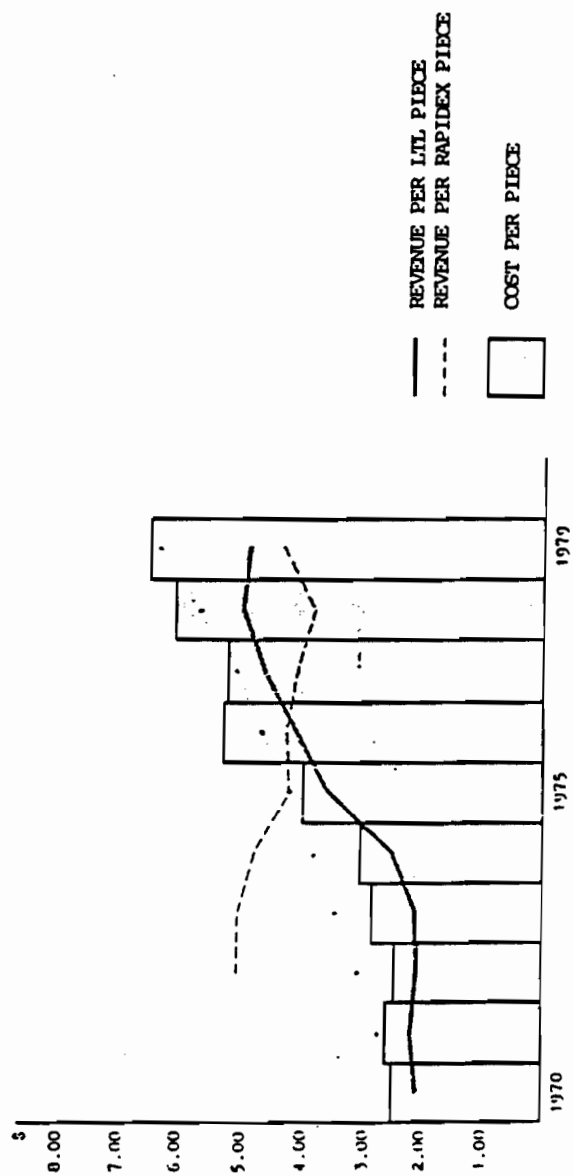
### 11.2.3 The CNX Market Positioning as a Source of Problems

The task force team reported that a third factor further worsened CNX's situation: the product line of CNX, which in 1979 was as follows:

- 1) LTL for shipments between 0 and 20,000 lbs.
- 2) Rapidex for parcels of less than 50 lbs. with a volume discount product called Rapidex Special.
- 3) Rapidex Air and Air Express for air freight.

#### The "Rapidex" Story

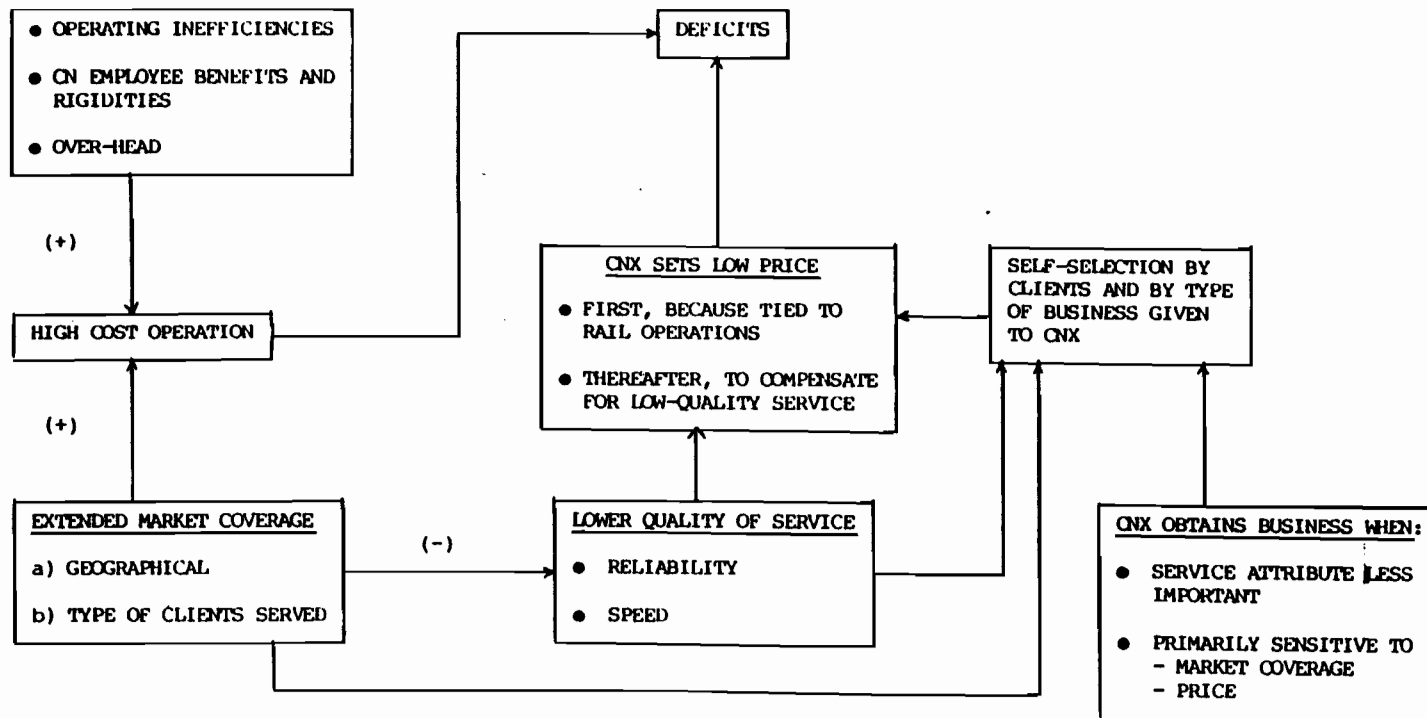
Rapidex was introduced in 1975 as a means of compensating for the erosion in CNX's LTL business. However, the actual implementation of this new product line did not heed any of the recommendations contained in the feasibility studies: 1) such a product line should be offered and managed through a completely separate operating unit; 2) Rapidex should be limited in coverage to high-volume lanes (mainly to the Quebec-Windsor corridor); 3) the Rapidex product should be simple and not offer any additional service (such as tracing, C.O.D., etc) in order to simplify procedures and paper work.

**FIGURE 11.2****REVENUE/COST PER PIECE**



**FIGURE 11.3**

**A SCHEMATIC VIEW OF CNX'S SYSTEMS PROBLEMS**



Source: Submission of CN Express President to CN Holdings, March 1980.

In fact as of 1979, Rapidex was offered over a wide geographical territory, its coverage being almost as extended as the LTL product. As a result of the integration of the LTL and Rapidex operations and sales force, the following consequences resulted: a) the low prices on Rapidex were very evident to alert shippers of LTL (Table 11.4); b) they exerted pressure on sales force to obtain Rapidex rates for their LTL shipments; c) sales force being pushed for volume, acceded to shipper demands, particularly as service quality of CNX was poor; d) bastardization of all Rapidex intended features (except the 50 lbs. limit); and (e) the cannibalization of CNX's LTL traffic by Rapidex.

The introduction of Rapidex produced little gain in overall volume and compounded further CNX's financial woes by shifting shipments from the higher-priced LTL to the lower-priced Rapidex.

Of course, Rapidex tariffs were set so as to compete with small parcel carriers. However, CNX attempted to meet such competition from specialists with an operating system designed for LTL traffic. For instance, the high average weight for Rapidex (22 lbs.) compared to the norm in other small-parcel organizations (10 lbs.), indicates that CNX "specializes" by default in a segment of the "small" market which is more costly to handle, which is often made up of LTL shipments disguised as Rapidex. All other small-parcel operators, including CANPAR, have a pricing structure that ensures them a business mix with an average weight per piece of around 10 lbs. Rapidex pricing and wide coverage attracts shipments in the 15 to 50 lbs. category.

From 1975 to 1977, the productivity in terminals dropped from 4 834 pieces per man/year to 3 900 pieces per man/year. As the quality of service continued to deteriorate, a result of this expanding volume of small shipments handled through the same operating system, a sort of Gresham's law of express business started operating; "bad express business drove out good express business". The increasing number of casual shipments drawn in by low prices<sup>5</sup> and the extended geographical coverage drove down the

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5 Or even channelled to CNX by competitors who often referred undesirable business to the crown corporation.

**TABLE 11.4**  
**COMPARISON OF RATES FOR RAPIDEX SPECIAL**  
**RAPIDEX AND LTL OVER EIGHT SPECIFIC ROUTES**  
 (22 LBS PARCEL)

	<u>RAPIDEX SPECIAL</u>	<u>RAPIDEX</u>	<u>L.T.L.</u>
MONTREAL - TORONTO	\$2.75	\$4.00	\$7.00
MONTREAL - WINDSOR	3.25	4.50	8.20
TORONTO - OTTAWA	2.75	4.00	8.25
TORONTO - QUEBEC CITY	3.25	4.50	10.55
OTTAWA - WINNIPEG	4.25	5.60	16.40
HAMILTON - EDMONTON	4.75	6.00	17.65
TORONTO - HALIFAX	4.25	5.60	17.50
MONCTON - HALIFAX	3.25	4.50	8.75

quality of service which in turn drove out the "good", high-volume-main-corridor business which is very sensitive to service.

The workings of this negative impact can be visualized in Figure 11-4. It superimposes on the basic dynamics at work (Figure 11-3) the detrimental effects of adding the Rapidex product line.

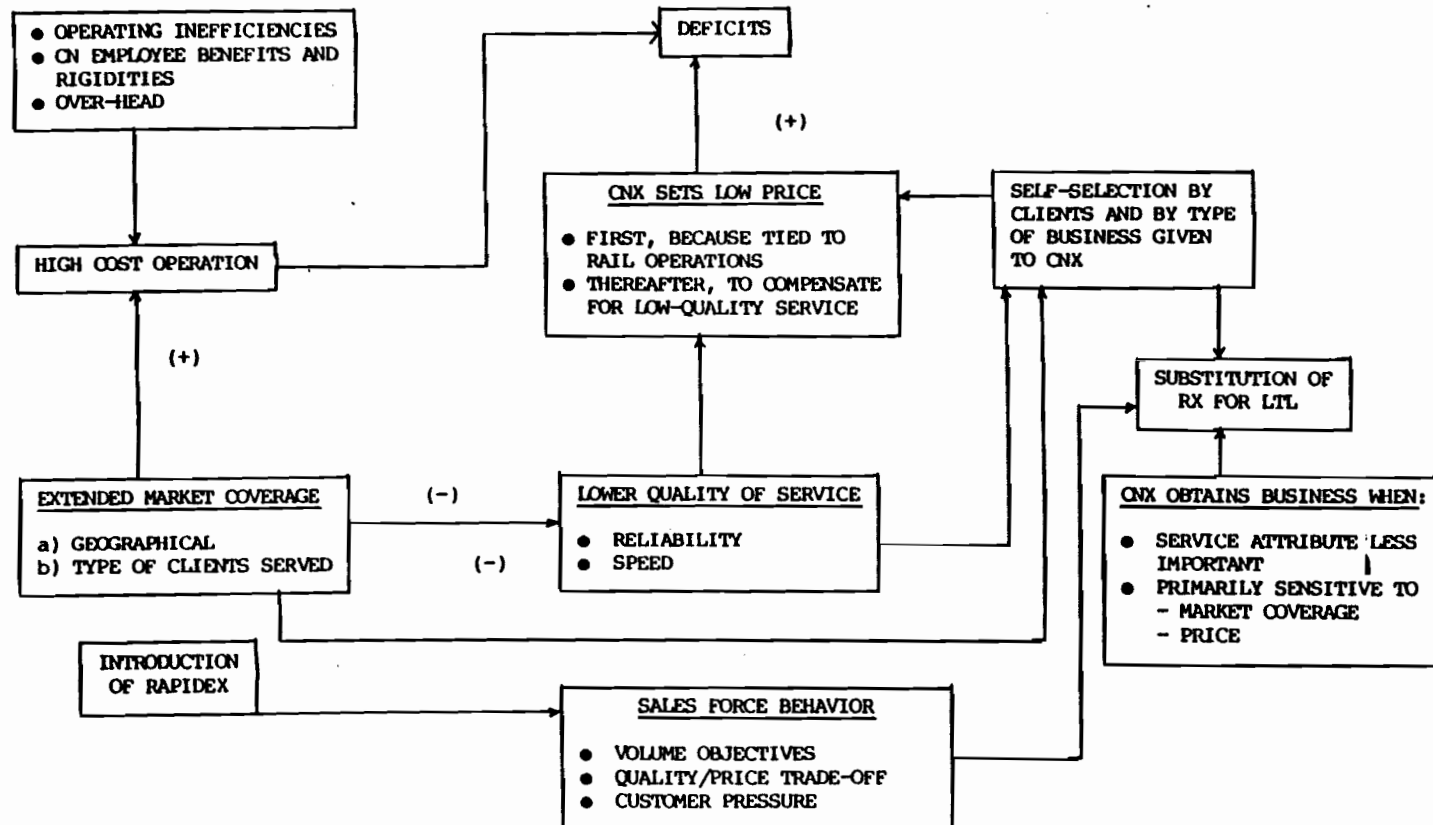
### The "Rapidex Special" Story

In 1976, a new product "Rapidex Special" was introduced, which offered a substantial price discount to volume shippers (20 shipments per pick up) in order to capture their business.

The implicit assumptions underlining this action are the following:

- 1) Product integrity could be preserved and both Rapidex and (LTL in the lower weight-breaks) will not be cannibalized by the less costly Rapidex Special.
- 2) Shippers are very elastic to price in those weight breaks and less concerned by the quality of service.
- 3) The cost savings from multiple shipments per pick-up are equal to or greater than the price discount offered. This assumption is illustrated in Table 11.5. The example pertains to one Rapidex Special pick-up in Montreal of 20 shipments for 20 different deliveries in Quebec city, compared to 20 different Rapidex pick-up in Montreal for 20 different deliveries in Quebec city. The weight per shipment is 22 lbs. and the tariffs are those in effect in June 1979.

**FIGURE 11.4**



Source: Submission of CN Express President to CN Holdings, March 1980.

TABLE 11.5BASIC ASSUMPTION IMPLIED BY RAPIDEX SPECIAL PRICES

PRODUCT	NUMBER OF PICK-UP STOPS	NUMBER OF DELIVERY STOPS	CNX REVENUES
RAPIDEX SPECIAL	1	20	\$ 55
RAPIDEX ROUTE	20	20	\$ 74

The discount offered for avoiding 19 pick-up stops is equal to 25,6% of the total revenues generated by 20 independent shipments. The cost data available at the time were insufficient to assess the cost savings but rough calculations of cost components indicate that the price discount may exceed substantially the cost savings. But that would be an issue if at least, the conditions of eligibility for Rapidex special rates had been strickly observed.

Rapidex Special did show spectacular growth with 2½ million pieces handled in 1979; it represented 59% of all pieces handled by the Rapidex line of products. However, the average revenue per piece was only \$3.57 for Rapidex Special as compared with \$5.73 for regular Rapidex.

However, the main product feature of 20 pieces per pick-up was not observed. A sampling of shipments made in June 1979 showed that in about 80% of the cases, the volume constraint had not been respected. This meant that, even if the original discount policy was justified by cost savings, (which is dubious), the widespread transgressing of the volume eligibility criteria because of a lack of internal control mechanics resulted in a further deterioration of CNX's financial performance. The impact stemming from this new afflux of small parcels at a still lower price also contributed to a further decline in the quality of service.

However, the financial deterioration of CNX goes beyond the issue of control to a fundamental error in market positioning. This error stems from CNX's lack of understanding of the economics of the trucking

industry, which is a grouping of separate and distinct sub-industries, each serving separate markets under different conditions and with different cost functions.

As shown in Figure 11.5, the cost function of a specialized small parcel operator is much lower than for an LTL operation, for shipments below 50 lbs. It follows from this that a general freight common carrier with an LTL infrastructure cannot compete successfully in both market segments using the same operating system. The revenues for handling shipments in the less than 100 lbs category will not cover its costs when prices levels are set by specialists with much lower cost characteristics.

Analysis of the cost data at CNX yields results which are consistent with these conclusions. In 1979, revenues per lbs for LTL shipments in the 0-50 lbs. weight break were 44,44 ¢/lb.; for Rapidex, they were 25¢ per pound and for Rapidex Special, only 15¢. This comparison is presented in Table 11.6.

**TABLE 11.6**

**PRODUCT LINE COMPARISON, MAJOR TO MAJOR TERMINAL (1979)**

	Average Revenue per Piece	Average Weight per Piece	Average Pieces per Shipment	Average Revenue per Pound
RAPIDEX ROUTE	5,10	18,18	1,00	0,25
RAPIDEX SPECIAL	3,42	22,99	1,63	0,15
LTL (0-50 lbs.)	7,89	17,52	1,44	0,44

Source: Submission of CN Express President to CN Holdings.





#### 11.2.4 Conclusions

CN Express's problems arose primarily from three basic sources:

- (1) CN's mandatory obligation to provide service to an extended geographical market and to any client (without selectivity on the basis of volume or shipment characteristics) significantly impacts on the revenue/cost relationship and deteriorates the quality of service;
- (2) an organization structure not suited to the nature of the trucking industry and the lack of appropriate financial control and operating systems; and
- (3) a fundamental error in market positioning.

#### 11.3 Criteria for Decision Analysis

The task force presented the following criteria for decision analysis:

1. Financial

Impact on revenue, costs and net results under various hypotheses (impact for 1980 and future years).

2. Marketing

Effective market coverage and penetration, effectiveness of sales price, competitive strength and vulnerability, improvement in quality of service.

3. Operations

Speed and range of adaptation required, potential for new and more efficient operating methods.

4. Personnel and relations

Required manpower reduction (managerial and scheduled), impact on morale, feasibility of planned reductions, support of union for specific proposals.

5. Legal and political

Impact on CN's obligation of coverage, political reaction to lay-offs entailed by the new competitive posture.

#### 11.4 Strategic Options

The task force's report describes five strategic options which covered a wide range of opinions expressed about how to deal with CNX's problems.

##### Option - I

The first option was called the "quick out" and implies the complete withdrawal of CN from the Express business. This alternative entails an accelerated traffic erosion by product / network / service curtailment designed to achieve an effective withdrawal in the shortest possible time.

The "quick out" option would mean a one-shot displacement of some 5 000 employees. It was assumed that the hostile reactions to such a program could be largely reduced by a comprehensive separation and retraining package similar to that previously used in other cases, e.g. VIA Rail passenger service. Minimal cost of a complete withdrawal from the express business was estimated to be approximately 120\$ million. Relations with Canadian Brotherhood of Railway Transport and General Workers (CBRTGW) were expected to deteriorate as a consequence of such a step.

Such an action required governmental approval. It was felt that the on-going constitutional debate at the time and the strained federal-provincial relations would not be conducive to federal government support. In addition to unemployment and economic disruption in already disadvantaged regions of Canada, the "quick out" solution would abruptly remove the only visible link many communities have with the publicly owned national railway.

It was also expected that a total withdrawal from Express service would cause the Canadian Transport Commission to take the position that CN was ignoring part of the obligations imposed on it by the Railway Act.

### Option - II

This option is essentially the plan of action proposed by the Marketing group; that is: "continuing with present course of action while trying to increase revenues resulting from the small market". According to this strategy, the specific actions to be taken during 1980 were:

- An increase of prices on all product lines to more closely reflect cost structure; the conduct of a thorough re-evaluation of pricing for action late in 1980.
- An increase in service quality and operating efficiency by various actions, including separate operations for RX and LTL, where traffic warrants.
- The tightening of control on product features (e.g. observance of Rapidex Special's minimum number of shipments);
- The delay of any major decision on strategy change till 1981.

This strategy constituted the basis for the 1980 budget. This budget called for substantial increases in prices without decrease in volume; on that tenuous assumption, it projected a deficit reduced to approximately 35\$ million in 1980. Mr. Perron doubted the realism of these forecasts, but did approve the budget at the end of 1979, lacking any alternative plan of action to propose at that time; Failure to achieve projected revenue budget by say 10% would lead to a 50-60\$ million deficit in 1980.

This option did appear the safest one as it does not call for any major system modification before 1981, if then. Furthermore, several managers at CNX headquarter, particularly but not exclusively in the marketing group, embraced this strategy and attempted to gain support for it at all levels in the organization including at CN Holdings.

### Option - III

This strategy proposes the elimination of an important fraction of Rapidex volume:

- Elimination of Rapidex Special and Rapidex Air.
- Return to the original concept for Rapidex, (restricted coverage, minimal special features, etc.).
- RX Special would be replaced by volume discount on basic RX tariffs, these discounts should not exceed 15-20% of present RX route tariffs as this appears to be the maximum cost savings attainable. This should apply only to specific shippers with pre-assessed volume; managerial authorization and customer commitment to minimum volume or rate adjustments if shipper fails to meet set volume are required.
- Review of ETA (LTL) tariffs to make them competitive with truckers.
- Separation of Rapidex and LTL, where the shipment volume warrants it.

This option entailed estimated revenue loss of up to 13\$ million (per 1980 budget). This market strategy could lead to a reduction in the Rapidex volume such that a separation of Rapidex and LTL is no longer feasible, as the volume of shipments will not justify the use of a separate vehicle fleet for Rapidex.

### Option - IV

This strategy, like the previous one, implies the elimination of Rapidex Special and Rapidex Air. The Rapidex tariffs are to be modified. All CNX services are to be integrated and only one tariff will be applied, based on tariffs in general trucking firms.

The 100 lb tariff will become the minimum price for all shipment under 100 lbs.

A new small parcel division will be created.

The specific actions to be taken in 1980 are as follows:

- o Elimination of Rapidex Special, Rapidex Air and Rapidex Rates.
- o Offering on a selective basis and for shipment below 100 lbs. of a "Rapidex" service at present ETA tariffs or some modification thereof.
- o Implementation of truckers' rates for all shipments above 100 lbs. with a minimum for shipments under 100 lbs. which do not qualify as "Rapidex".
- o Creation of a new separate small parcel operation (CN-Par.).

### Considerations

- The setting-up of a separate entity to compete in the small parcels market would help CNX in retaining customer base in this market; however indications are that few of present customers show the type of shipment profile that is attractive to, say, a CN-par operation;
- Such a separate entity could make use of excess shed capacity and therefore with lower direct costs turn a profit; however, where this alternative is not feasible, CNX would have to invest additional funds.
- Potential revenue loss of 20\$ to 35\$ million.

- Under the best of circumstances, the small segment of the market will yield only modest profits, given the extent and drive of competition and the basic economics of that industry; to achieve such modest profits, CNX would have to allocate scarce managerial and selling resources and to invest additional funds.

The probability of success for CNX in the lucrative but also highly competitive intra-and inter-city small parcel market, would be very low.

### Option - V

This option, which became known as the market concentration strategy, called for a total withdrawal from the small-parcels market in order to focus on the LTL market. This strategy can be summarized as follows:

- Concentration on LTL operations and marketing;
- Abandonment of all Rapidex services and tariffs.
- Offering on a selective basis and for shipments below 100 lbs. of a "Rapidex" service at present ETA tariffs or some modification, thereof.
- Implementation of truckers' rates for all shipments above 100 lbs. with a minimum for shipments under 100 lbs. which do not qualify as Rapidex.

### Considerations

- This option calls for a considerable market concentration; CNX becomes solely an express company with no attempts at competing in the small parcels and courier business.

- The "Rapidex" name is maintained to allow discount volumes to large shippers in the 0-100 lbs. category, after evaluating their contribution to CNX profits.
- Client base is considerably reduced (by as much as 40%).
- Impact of reduced volume on line-haul and P and D must be carefully assessed; extended geographic coverage might have to be achieved by extensive interlining;<sup>6</sup> the system should be geared to obtaining larger shippers with competitive prices and better quality of service.
- The impact of this reduced volume on operation is high; a reduction of 1,500 unionized employees, numerous vehicles to be sold, several terminals to be closed. As CN has a legal obligation to offer service to the entire Canadian territory, coverage must be achieved by sub-contracting or interlining. The replacement of permanent employees by sub-contractors may be opposed by the Canadian Brotherhood of Railway Transport and General Workers (CB RTGW).
- Major changes in CNX operating and management systems must be carried out to effectively compete in the LTL market with private operators.

This option was strongly recommended by the task force and Mr. Perron. The report went on to specify in more details the major components of that strategy.

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<sup>6</sup> "Interlining" means passing on shipments to other trucking companies operating in geographical areas that are not directly covered by CNX.

## **11.5 The Elements of the CNX Market Concentration Strategy**

### **11.5.1 The External Strategy**

The external component of this strategy is a repositioning in the LTL market. It would mean a complete withdrawal from the small parcel market as CNX found it impossible to achieve the unit costs of a small parcel specialist while operating within an integrated system handling small package and LTL traffic. Within the LTL service, two product lines would be designed, in order to discriminate between casual and regular shippers and improve the revenue/cost relationship in that part of the small parcel market which is captive to CNX.

The product definitions proposed under this market strategy are:

**Product A:** a simplified service in the 0-100 lbs. category, without benefits of the Trace system, without the collect feature, with a pick-up grid which will eliminate shippers distant from CNX terminals but which will otherwise have all essential features of the present ETA-100 (0-100 lbs.) and a similar price characteristic. The service will include a minimum charge for the one-shipment per pick-up equivalent to the appropriate 75-100 lbs. rate. That service may be called "Rapidex" to maintain the positive connotation attached to this name.

**Product B:** a complete LTL service, with full Trace system benefits, complete coverage and all appropriate features. It will have a 100 lbs. minimum charge which will be slightly higher than the 75-100 lbs. tariff of product A and slightly lower than the truckers' minimum charge. All lower weight shipments which are collect or which require specifically the Trace system or which are picked-up outside Product A's geographical grid, will be serviced at the minimum 100 lbs. charge. The tariff structure otherwise will be competitive with truckers both in terms of general tariff and special rates. Both products will have a tariff structure for the entire grid of CNX terminals with add-ons for other points served through interlining with local truckers.



A market repositioning of such magnitude imposes dramatic adjustments on CNX. A reduction of about 5 million pieces handled with a major contraction of customer base was expected.

### Objectives

Such a repositioning to be effective would require CNX to pursue aggressively the following objectives:

- o To become capable and credible as a carrier offering good (comparable) quality of service in the LTL business.
- o To shift the selling and market emphasis towards shipments in the higher weight break more suitable to the "plant" characteristics of CNX.
- o To make CNX a competitive "local" LTL carrier in all market areas where it operates terminals.
- o To increase the proportion of CNX's business which results from salesmen's efforts directed at prospects desirable from CNX's point of view; conversely to decrease the casual, undesirable business attracted by CNX's coverage or channeled to CNX by competitors.

#### **11.5.2 The Internal Strategy**

However, for CNX to become a viable enterprise in the LTL market, it must adopt managerial systems, an organizational structure and culture typical of the trucking industry. In other words, it requires an internal strategy to implement its external one.

Practically, this means the establishment of a highly decentralized operation with the focus of the organization on the terminal, the introduction of management systems to cope effectively with a decentralized operation (such as close control and monitoring of terminal activities by the headquarter), a substantial reduction in the number of terminals, a cut in the administrative, operating and staff functions, and changes in the organizational culture towards what the task force described as a "trucking culture with its particular set of values and ways of doing things, a no-nonsense bottom-line oriented management with little tolerance for bureaucratic games and formalizations".

The proposed organizational set-up would result in:

- 1) A fairly small headquarter staff, expected to try to reap all potential benefits that may result from administrative integration and coordination;
- 2) A division of the Canadian territory into eight major market areas for which eight "market areas coordinators" were to be appointed to carry an interface function between a group of "market areas (formerly, terminal) managers" and the system headquarter, and to expand the capacity of the organization to carry out this major transformation.
- 3) A series of small to medium sized businesses (i.e. terminals) managed by people (market area managers) who have full management responsibility for their operations and for the marketing of CNX services in their market area. Each terminal must be seen as a profit unit with defined market coverage, a revenue and expense accountability, and salesmen working under the direction of the market area manager.

#### The Head Office in the New CNX

To reap all benefits that may result from administrative integration and coordination, a critical number of functions or systems would be

centrally coordinated at headquarters. These functions are: planning, pricing, accounts receivable, line-haul, automotive, Trace and employee relations.

The head office would also be responsible for providing the driving and control mechanisms for field operations (i.e. action plans, operating targets, etc.) and for developing plans and programs to assist market area managers in the improvement of their performance.

An important role in fulfilling some of the above mentioned functions would be played by a computerized operating and accounting system referred to as "Trace". This system had been under development since 1977 at a cost in excess of \$10 million, and was to become operational in 1980. Apart from providing a great deal of data useful for cost determination, it would take over a number of clerical functions (allowing for a substantial reduction in clerical staff) and would allow CNX to offer its clients a better tracing<sup>7</sup> service than any of its competitor.

This change of avenue in the role of headquarters would require a substantial change in CNX's management style.

#### Market Areas Coordinators

The intended strategy called for the creation of eight positions of market area coordinators. These market areas would be: Atlantic, Eastern Quebec, Montreal, Toronto, North Eastern Ontario, South Western Ontario, Prairie, Mountain.

The key tasks of the market area coordinators would be:

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<sup>7</sup> "Tracing" means locating where shipments are at any particular time; this is a valuable service for shipments traveling over long distances.

### 1) Interface

To be the main communications link between headquarter and market area managers and relay policies, programs to market area managers. They would provide critical support during the enormous transformation of CNX into a terminal (market-area) based operation.

### 2) Advisory and assistance function

To provide consulting and analytical assistance to market area managers.

To assist MAM\* in implementing programs and preparing action plans.

### 3) Monitoring and Control function

## The Terminals in the New CNX

As already mentioned, CNX has a legal obligation to cover a string of small communities across Canada. The analysis of the economics and workings of a trucking operation led to the conclusion that it is nearly impossible to provide such an extended market coverage at a profit. Therefore, the external strategy proposed a concentration on a core network of terminals, coupled with a policy of "add-on pricing" to provide a wide geographical coverage.

In 1979, CNX was present in some 92 communities in Canada, with staff ranging from a single employee at some locations to more than 1000 employees in larger terminals. The plan of action involved a reduction to a core of 45 terminals in early 1981, with the goal of operating about 30 terminal by year-end 1981. (Table 11.7).

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\* Market area managers.

Nevertheless, services to all communities would continue to be provided through interlining arrangements with local truckers and "add-on pricing", i.e. CNX rates for the portion covered directly by CNX and local truckers' rates added on for service to the ultimate destination.

The terminal would be managed by a market area manager who must become a local businessman, backed by the full resources of CNX, with authority and accountability commensurate with his role. Since the intended turnaround strategy calls for "a terminal-based operation", the terminal manager must have the profile of an aggressive, market-oriented and cost conscious business operator. His experience, motivation and remuneration must reflect these requirements and expectations.

**TABLE 11.7**

**CNX TERMINAL CONSOLIDATION SUMMARY**

	JUNE 1979	DEC. 31, 1980	PROPOSED
B.C.	8	8	2
ALBERTA	5	5	2
SASKATCHEWAN	6	3	2
MANITOBA	8	6	1
ONTARIO	30	23	14
QUÉBEC	19	9	3
MARITIMES	16	15	6
TOTAL	92	69	30

Source: Memorandum to Cabinet. Re: CN Express, December 1980.

The key tasks of a market area manager would be:

- Marketing and selling of transportation services in defined product lines to shippers in market area;
- Ensuring quality of CNX's services in market area;
- Planning and control of activities (including the attainment of financial targets);
- Managing employee relations;
- Managing community relations.

Mr. Perron strongly advocated this market concentration strategy because, in his opinion, it offered several advantages:

- a) legal obligations are satisfied, that is the role of the CN as a Crown Corporation is taken into account;
- b) employment and labour aspects are dealt with satisfactorily; i.e. this option is "saleable" to the union as an alternative to complete withdrawal from the express business;
- c) this strategy would lead to a sharp but attainable reduction of deficit, down to around 19\$ millions by 1985; if achieved, this option was less onerous than any other option, including the "quick out" option.

### January 15, 1980

The Canadian Brotherhood of Railway, Transport and General Workers distributes to all unionized employees a pamphlet titled "CNR to Dismantle Express Operation!" The pamphlet attacks CN's presumed intention of rationalizing CNX operations on the back of employees.

"What is happening at CNX is but another chapter in a long history of making the workers pay for the profit-oriented policies of big corporations like the CNR" (CBRT release Local 99, Jan. 15/80). Earlier, the CBRTGW president had blamed bad planning and management at CNX for having plunged the operation into the red and thereby made workers suffer for their mistakes. (CBRTGW circular 112-MP-79, November 9, 1979)

Joint union/management committees are set up at the national, regional and local levels to improve communications between the parties and work out a program to help the express operation.

### End of January 1980

Emergency meetings of all headquarter managers, regional managers, sales managers, managers of large terminals, are held to discuss and debate the proposed courses of action.

As he fails to win Mr. Perron over to his point of view, the marketing vice-president resigns sending to the president of CN Holdings (by now CN Enterprises), a long letter outlining his position and proposed course of action. His arguments (for option 2) are supported by the marketing staff at headquarters.

The President of CN Holdings participates in a long meeting held on a Friday and Saturday to arrive at some resolution of the issue. However, faced with strongly held views and irreconcilable positions, he who has the final say at this juncture, does not commit himself to any option; he proposes to continue discussions and, after a long Saturday meeting, asks for a plan to implement at least those actions about which there is consensus: the shifting of more responsibility to terminal management; simplification of product line (elimination of "nuisance" features: collect shipments, etc.); the closing of marginal terminals; raising the present 25/lbs-minimum charge on LTL to a 50/lbs-minimum. However, the major decision of pulling completely out of the small parcel business is still very controversial and no final decision is made on this point.

February 18, 1980

Perron proposes a plan of action containing all the steps for the implementation of option 5, including the dropping of Rapidex special tariffs; however, the plan does not include the immediate abandonment of regular Rapidex.

February 1980

Phase I (waybilling) of Trace is implemented in all terminals.

CN Express and CBRTGW set up a negotiating committee to work out the provisions of a special agreement for the drastic reduction of operating personnel at CNX.

March 1980

The creation of eight small regions around major centers in Canada to replace the existing four major regions, in order to place more authority and responsibility at the local level. An intermediate layer of managers is eliminated and as a result 120 management and clerical positions are trimmed.

Actions concerning the product lines are taken, i.e. cancellation of the collect feature which results in a substantial loss of volume.

March 28, 1980

Mr. Perron announces a number of major decisions in a press release and a communiqué to all employees. After a brief review of CNX's performance and of the alleged causes of its problems, he communicates the following decisions:



- The cancellation of the "collect" features on Rapidex
- An increase in Rapidex rate effective June 1<sup>st</sup>, 1980
- A "decrease in emphasis" on Rapidex Special
- Cancellation of Rapidex Air
- The intent on becoming "more and more LTL oriented in the future because we are better equipped to handle this kind of traffic"
- Changes in organizational structure to decentralize operations at the terminal level, to create eight regions instead of the present four
- Reduction in the management ranks in order to reduce overhead
- Reduction of operating personnel in consultation with the union, through union/management committees set up in January 1980.

The President of the union (CBRTGW), Mr. Nicholson is quoted in the press release as declaring that "our Union is not happy about the actions that will be taken but we understand the critical situation CN Express is in and if things are to be turned around and the future of the great majority of our members protected, then we have to face up to this serious action."

#### April 2nd, 1980

Nicholson, President of CBRTGW, issues a circular letter to the unionized employees of CN Express announcing his intention to cooperate with the management to turn the company around, while negotiating at the same time arrangements to reduce the negative impact of layoffs.

#### April 1980

At the end of the 1<sup>st</sup> quarter of 1980, the situation is assessed and found to be fast deteriorating. The following reasons are invoked:

- o the 1980 traffic and revenue projections were too optimistic to start with;
- o a traffic drop from what might have been a more realistic forecast;

- a level of cost competitive with parcel specialists seemed unattainable;
- productivity targets were not met;
- hesitancy in carrying out rate actions as there was much concern about traffic losses;
- a larger than expected "parcel" component in LTL; and
- difficulties in implementing Trace on schedule.

The year-end outlook, based on present trends, showed losses of \$53 to \$56 millions.

More drastic actions are considered to improve short-term results, such as:

- (1) Deferral of the "Trace" program (\$3 million in savings possible in 1980). However, Trace is essential to survival in the LTL market and it would be a poor business decision to defer the implementation of Trace, if CNX intends to stay in the LTL business.
- (2) Additional reductions in administrative staff.
- (3) Total elimination of Rapidex (See calculations of financial impact in Table 11.8). However, it was felt that the action should be deferred until the UPS\* case had been resolved.

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\* United Parcel Service, an American small parcel company, had filed for the required permits to operate in Ontario. The Ontario Transport Commission was conducting hearings on that matter, at which CN and CP jointly and vociferously voiced their opposition.

**TABLE 11.8**  
**FINANCIAL IMPACT OF POSSIBLE ELIMINATION OF RAPIDEX**

<u>NET FINANCIAL IMPACT</u> (FULL YEAR EFFECT - PRELIMINARY)		
POTENTIAL LOSS OF REVENUE		\$25.0 M
EXPENSES REDUCTION RESPONSE (FIRST CUT)		
○ SCHEDULED (OFFICE, SHED, FLEET)	20.0	
○ LINEHAUL	4.0	
○ AUTOMOTIVE	2.0	<u>(26.0)M</u>
<u>NET IMPROVEMENT EXCLUDING REDUCTION OF OVERHEAD</u>		1.0 M

SOURCE: I.D. a re-assessment of the Express Situation as of mid 1980,  
 July 1980 - p.6

March-July 1980

Rate actions in the direction of the truckers' 100-lbs minimum are taken but with Canadian Pacific Express showing resistance to similar moves. CNX's sales force is now focussing on LTL, supported by somewhat improved service levels and the partially implemented Trace system.

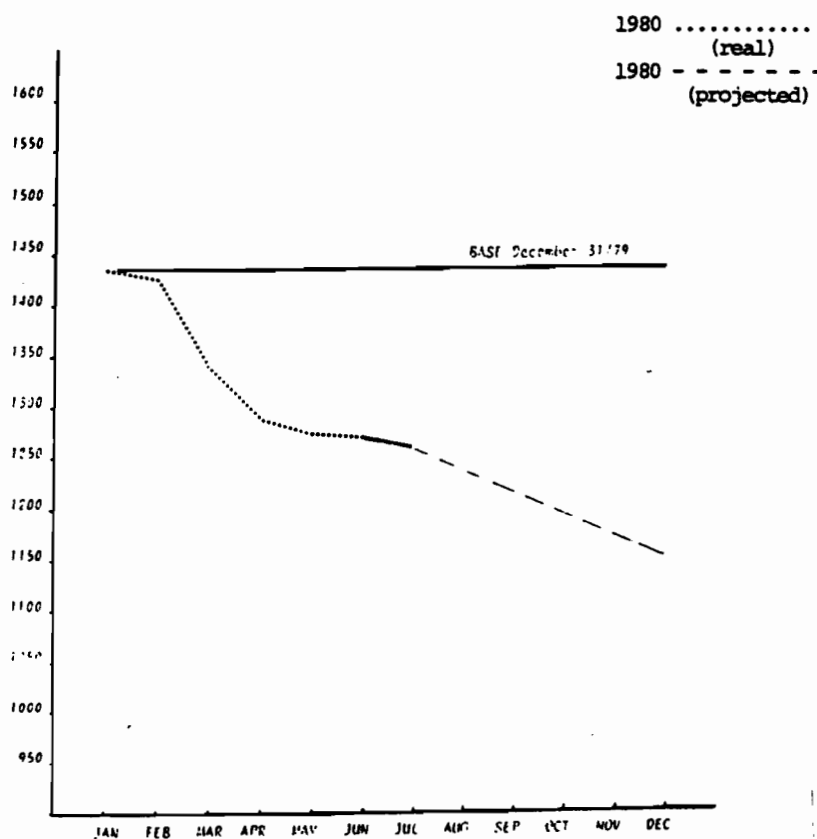
Add-on tariffs are being implemented in Eastern Quebec and Ontario. Work is underway to set add-on tariffs in New Brunswick, P.E.I. and Nova Scotia. Heavy political reaction is expected.

July 1980

CNX's management carries out a mid-year evaluation of tasks completed or yet to be done:

- Higher Rapidex tariffs are implemented and revenue per shipment were increased by 10%. These higher tariffs have had no clear impact on volume, although substantial reductions are expected.
- Sales promotion of Rapidex was phased out; LTL sales calls only are made, supported by direct mail advertising and hand-out material.
- Study of interlining arrangements (i.e. sub-contracting to local carriers) beyond core terminals has been completed.

- o Manpower (operational and administrative staff), P&D fleet inventory and number of terminals have been reduced (Fig. 11-6, and Table 11-9).
  - CNX is moving in the right direction and all programs are fully or partially implemented.
  - CNX management appears to be doing the job as well as can be expected.
  - Due to sales force redirection towards LTL and an increase in the Rapidex tariff, the volume of Rapidex is decreasing (Fig. 11-7).
  - Poor economic conditions largely explain the reduction in the volume of LTL handled by CNX in 1980 as compared to 1979 (Fig. 11-8).
  - There is evidence of mounting labor opposition to the nature and scale of on-going changes.
  - Financial results are still disappointing. No break-through has yet been achieved; CNX still faces a long hard pull. Total revenues for 1980 are lower than those in 1979, due to the introduction of the new Rapidex tariff and the drop in the LTL volume (Fig. 11-9).
  - Operating expenses are significantly higher in the first half of 1980 as compared to 1979, due to the impact of the major work force reduction programs (which entailed severance pays, early retirement packages, etc.) introduced early in the year, and to the costly implementation of Trace (Fig. 11-10).

FIGURE 11-6P&D FLEET INVENTORY (TRUCKS)

SOURCE: I.D. A re-assessment of the Express Situation as of mid-1980  
July, 1980, p. 11.

**TABLE 11-9**  
**TERMINAL NETWORK RATIONALIZATION**

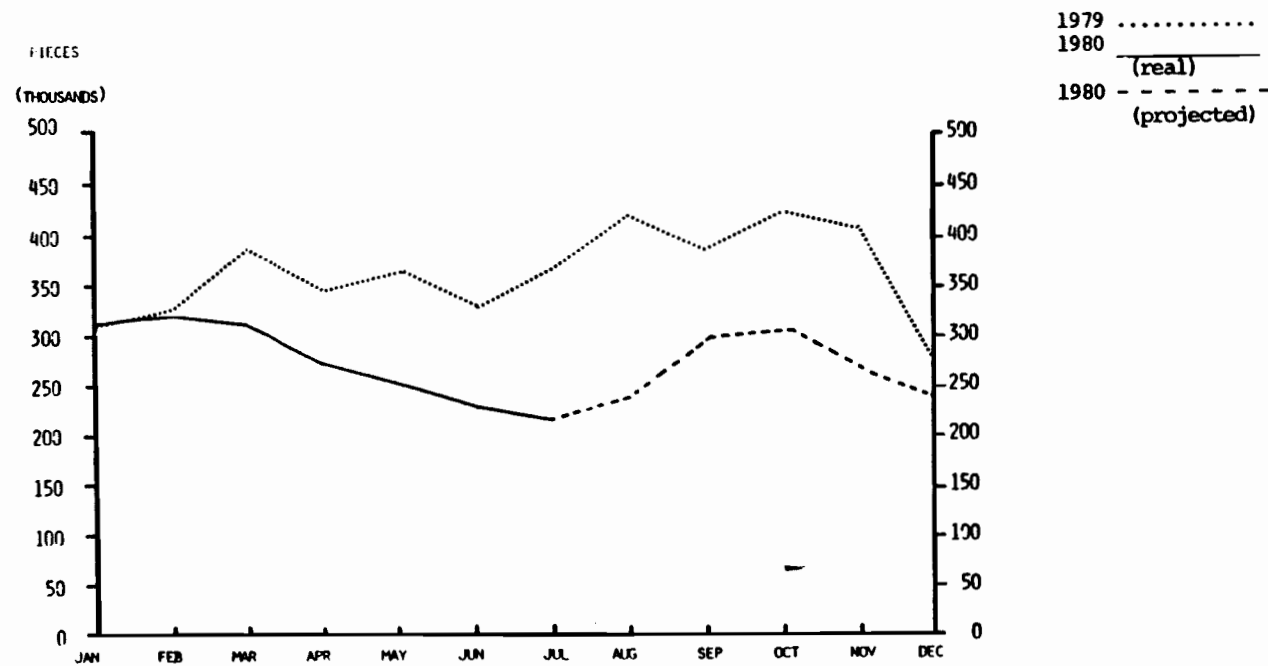
	NO OF TERMINALS TO BE:		
	RETAINED	CLOSED	TOTAL
INITIAL PROPOSAL (December 1980)	30	58	88
CARRIED OUT	—	<u>(8)</u>	<u>(8)</u>
TO COME	<u>30</u>	<u>50</u>	<u>80</u>

SOURCE: I.D. A re-assessment of the Express Situation as of mid-1980  
p. 13

FIGURE 11-7

RAPIDEX VOLUME NO. OF PIECES

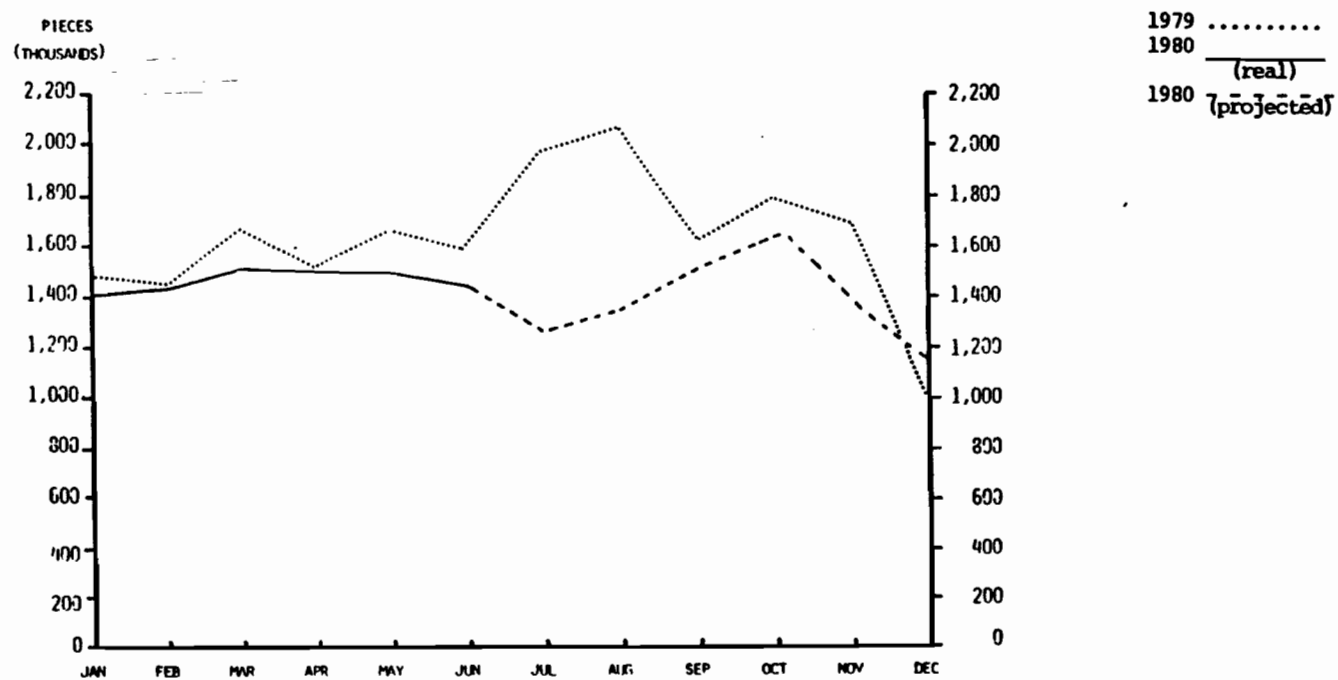
1979 AND 1980



Source: I.D. A re-assessment of the Express Situation as of mid-1980, p. 14.

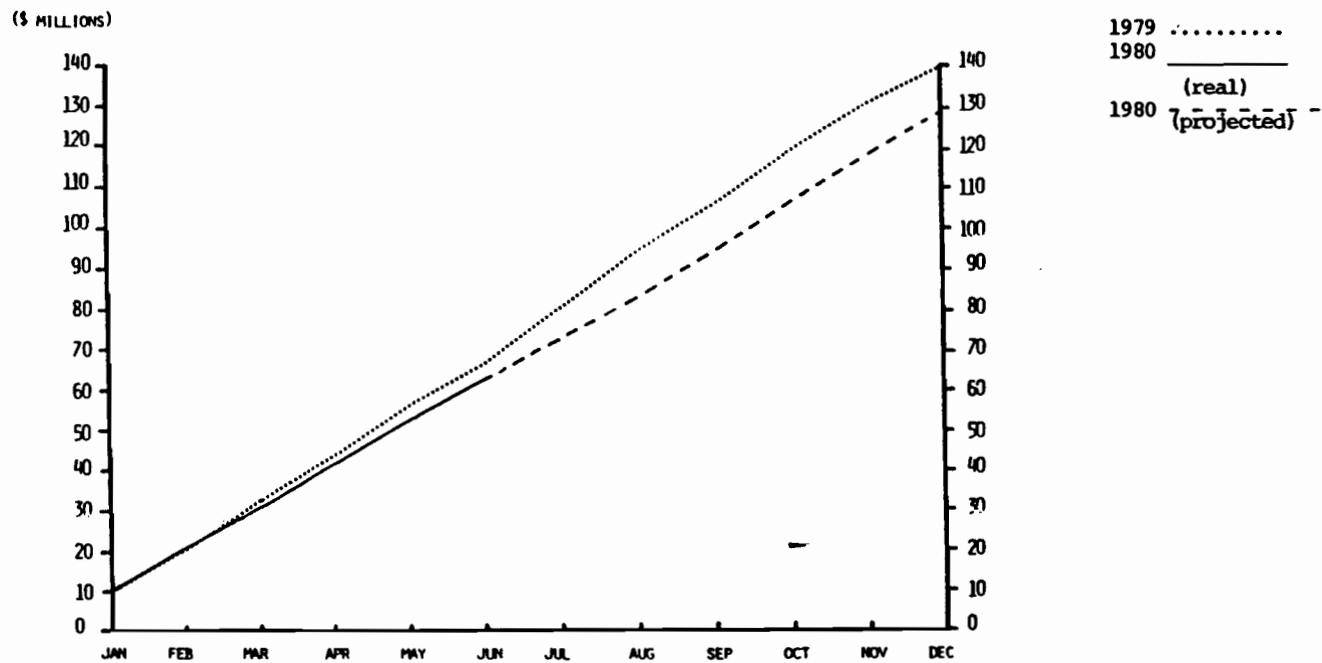


**FIGURE 11-8**  
**L.T.L. VOLUME**  
**1979 - 1980**



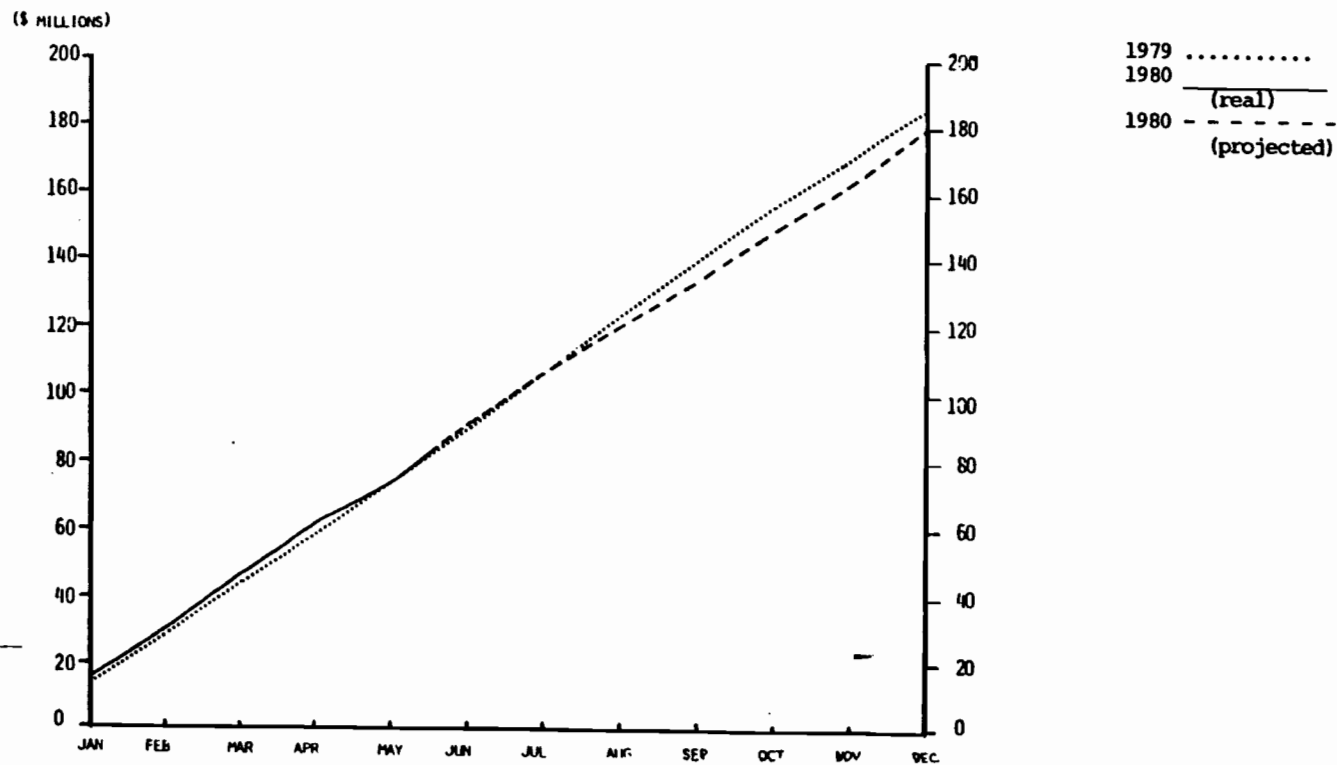
Source: I.D. A re-assessment of the Express Situation as of mid-1980, July 1980, p. 21.

**FIGURE 11-9**  
**TOTAL REVENUES**  
**1979 - 1980**



Source: I.D. A re-assessment of the Express Situation as of mid-1980, July 1980, p. 22.

**FIGURE 11-10**  
**OPERATING EXPENSES**



Source: I.D. A re-assessment of the Express Situation as of mid-1980, July 1980, p. 23.

- Based on present trends, a loss of \$53 million is expected for 1980 (Table 11-10).
- During the period 1981-85, a loss of \$168 million is projected, although deficits will continue to decrease every year and are expected to reach \$19 million by 1985. (Table 11-11).

As a result of this assessment, CN's management re-examines the option of CNX's complete withdrawal from the express business, under the following set of assumptions:

- . All vehicles would be sold.
- . Fixed assets and leases would be assigned to CN Real Estate.
- . All scheduled (unionized) staff terminated (after exercise of seniority).
- . All management staff released (reassigned or terminated).
- . CN Trucking loses express traffic (annual gross revenue: \$7.5 million).
- . CN Rail loses express traffic (annual gross revenue: \$12 million).
- . Corporate headquarter absorbs or re-assigns present cross charges of \$4.5 million.
- . CN's management services absorbs or re-assign present cross-charges of \$8.5 million.
- . Job security fund picks up 50% of \$22 million in separation costs.

TABLE 11-10FINANCIAL OUTLOOK AS OF JULY 1980 ON A QUARTERLY BASIS

	1st	2nd	3rd*	4th*	TOTAL
REVENUES	31.7	31.4	31.9	33.6	128.6
EXPENSES	<u>48.0</u>	<u>45.7</u>	<u>43.8</u>	<u>44.1</u>	<u>181.6</u>
N E T	(16.3)	(14.3)	(11.9)	(10.5)	(53.0)
Annual					
ANNUAL DEFICIT RATE	\$65.0	\$57.0	\$48.0	\$42.0	

\* Estimated

SOURCE: I.D. A re-assessment of the Express Situation as of mid-1980  
p. 25

**TABLE 11-11**  
**PROJECTED FINANCIAL RESULTS**  
**1980 - 1985**

	1980	1981	1982	1983	1984	1985
REVENUE			145,100	161,061	178,777	198,443
PRICE (9%)			13,059	14,495	16,090	17,860
MIX			2,902	3,221	3,576	3,969
	128,600	145,100	161,061	178,777	198,443	220,272
EXPENSE			187,100	197,068	208,863	221,394
INFLATION (10%)			18,710	19,707	20,886	22,139
PRODUCTIVITY (2%)			(3,742)	(5,912)	(8,355)	(8,856)
TRACE			(5,000)	(2,000)		
	178,600	187,100	197,068	208,863	221,394	234,677
NET BEFORE INTEREST	(50,000)	(42,000)	(36,007)	(30,086)	(22,951)	(14,405)
INTEREST	3,000	4,000	4,400	4,500	4,600	4,700
DIVISION NET	(53,000)	(46,000)	(40,407)	(34,586)	(27,551)	(19,105)

SOURCE: I.D. A re-assessment of the Express Situation as of mid-1980, p. 28

- . Corporate headquarter picks up the cost of management separations: \$15 million.
- . CN must continue to fund pensions for past services.

For the period of 1981-1985, the option of complete withdrawal would imply, according to the latest calculations, losses of 129,4 million; and this estimation does not include the market impact on CN Rail and on CN's trucking companies (Table 11-12). It would also, of course, mean laying-off almost 5,000 employees in various parts of Canada (Table 11-13).

A fallback strategy, if complete withdrawal is not acceptable to the government, is the concentration of CNX operations on LTL markets by accelerating present programs to reduce the terminal network, raise prices, interline traffic to local firms and phase out parcel operations (Rapidex). This fallback option, it is expected, would improve the net by 1.6 million over the ensuing 12 months (Table 11-14)

**TABLE 11-12**

**PROJECTED FINANCIAL IMPACT OF COMPLETE WITHDRAWAL**

	1980	1981	1982	1983	1984	1985
REVENUE	128.6	11.4	-	-	-	-
OPERATING EXPENSE	178.6	55.3	14.4	12.0	11.0	10.0
Clean up cost	-	2.5	-	-	-	-
Liquidation balance sheet	-	7.2	-	-	-	-
Contribution to job security	-	11.0	-	-	-	-
Separation costs - Management & Supervisors	-	15.0	-	-	-	-
	<u>178.6</u>	<u>91.0</u>	<u>14.4</u>	<u>12.0</u>	<u>11.0</u>	<u>10.0</u>
NET BEFORE INTEREST	(50.0)	(79.6)	(14.4)	(12.0)	(11.0)	(10.0)
DIVISION NET	<u>(53.0)</u>	<u>(82.0)</u>	<u>(14.4)</u>	<u>(12.0)</u>	<u>(11.0)</u>	<u>(10.0)</u>
IMPACT ON OTHER DIVISIONS						
CN Rail		(4.0)	(2.0)	(1.0)		
Separately operated Trucking companies		(1.0)	(.5)			
GRAND TOTAL	<u>(53.0)</u>	<u>(87.0)</u>	<u>(16.9)</u>	<u>(13.0)</u>	<u>(11.0)</u>	<u>(10.0)</u>

SOURCE: I.D. A re-assessment of the Express Situation as of mid-1980 - page 36



TABLE 11-13EMPLOYMENT IMPACT OF CLOSING DOWN CN EXPRESSAS OF AUGUST 1ST, 1980

	NO. OF EQUIVALENT EMPLOYEES	PRINCIPAL POINTS
British Columbia	233	Vancouver, Prince George
Alberta	284	Edmonton, Calgary
Saskatchewan	123	Regina, Saskatoon, Prince Alpert
Manitoba	360	Winnipeg, Brandon The Pas
Quebec	1,154	Montreal, Quebec City, Drummondville
Ontario	1,866	Toronto, Hamilton, Ottawa
Maritimes (Excl. Nfld)	763	Halifax, Moncton
Headquarters (Incl. Senior Management across Canada)	<u>165</u>	
TOTAL	<u><u>4,948</u></u>	

SOURCE: I.D. A re-assessment of the Express Situation as of mid-1980,  
p.38

TABLE 11-14PROJECTED IMPACT OF MARKET CONCENTRATION STRATEGY

	CLOSE DOWN PERIOD (90 DAYS)	NEXT 12 MONTHS
LOSS OF REVENUE	3.0	16.0
COST SAVINGS		
Manpower	0.6	11.2
Vehicle & Line Haul	0.5	4.4
Other Reductions	-	2.0
	<u>1.1</u>	<u>17.6</u>
IMPROVEMENT IN NET	<u>(1.9)</u>	<u>1.6</u>
REDUCTION IN:		
NUMBER OF MEN	458	
NUMBER OF VEHICLES	140	

SOURCE: I.D. A re-assessment of the Express Situation as of mid-1980,  
p. 43

As a result of this mid-1980 assessment, CNX's and CN's management decide to pursue the following lines of attack:

- Management will explore the support it can muster for a political solution through the "quick out" or "special subsidy" alternative.
- These explorations must be carried out very discreetly until a positive reaction is assured;
- In the interim, CNX management must continue with "business as usual", implementing in effect an incremental market concentration strategy by raising Rapidex tariffs.

August 13, 1980

CN Express and the CBRTGW release a media backgrounder to provide the public with a clearer picture of the situation at CNX, i.e. what the Division is doing to improve its financial situation. It is hoped that "if the media get a better understanding of why and how CNX is doing things, it will be less critical and negative about actions which in some instances, will disturb clients, citizens and even governments". (From joint press release by CNX and CBRTGW).

August 26, 1980

Mr. Perron makes a comprehensive presentation on Express to CN's executive committee, outlining three possible avenues for CNX:

- 1) The present five-year plan
- 2) "Staged withdrawal",
- 3) The "quick out".

The financial consequences of the three options are presented in Table 11-15.

### **The "Present Five-Year Plan"**

1. This option means the continuation and acceleration of the strategy that CNX is now pursuing, that is focus on LTL trucking, reduction of geographical areas directly serviced by CNX and a change in customer profile towards high-volume shippers with desirable shipment characteristics.

CNX's five-year financial projections now include quantifiable improvements that are to be achieved by the different programs within this strategy. The present plan forecasts a reduction of the deficit to \$19.1 million by 1985. However, it entails a total loss of \$167,7 million over the period.

### **2. The Staged Withdrawal**

To some extent, this option is a more radical version of the market concentration strategy currently underway. It consists of:

- i) the cancellation of all point-to-point rates involving centres outside the core territory, i.e. Southern Ontario, Southwestern Quebec, basic points in Atlantic and Western Canada.
- ii) The removal of all special LTL tariffs other than for the core origin/destinations network.
- iii) The cancellation of discounts on LTL tariffs.

TABLE 11-15FINANCIAL IMPACT OF VARIOUS OPTIONS1981 - 1985

(in millions of \$)

	<u>5 years 1981-1985</u>	
	<u>Net Income</u>	<u>Net Cash Flow</u>
○ PRESENT 5-YEAR PLAN	(168)	(136)
○ THE "QUICK OUT"	(176)	(115)
○ "STAGED WITHDRAWAL"	(151)*	(118)

\* EXCLUDES COST OF SPECIAL LABOUR "PACKAGE"

- iv) Increases in Rapidex rates, independent of CPX, by an amount varying between 10% and 25%, depending upon weight break and territory, but definitely designed to push out of the system a substantial volume of traffic, particularly at the lower end of the scale. These actions need not be taken concurrently but could be scattered over a 2-3 month time period.

Although the market concentration strategy also stirred some opposition, the staged withdrawal option was expected to provoke bitter confrontations with communities and labour as individual services are systematically re-shaped and curtailed.

It was also expected that reductions in service and failure to maintain adequate service levels would result in a series of CTC hearings which are both time consuming and costly to CN and the Government. Manpower reductions were expected to incite strong opposition from employees and unions and produce low morale for those employees still working but facing impending layoffs.

### 3. Quick Out

It entails an accelerated traffic erosion by product/network service curtailment designed to achieve a total withdrawal in the shortest possible time.

The specifics of this alternative have already been presented. CN's executive committee favors the "quick-out" purely out of financial considerations. It recognizes, however, that once such a decision is made, CN may face difficult political problems. No final decision is made; CNX management is to continue with present course.

September 2, 1980

At a meeting in Ottawa between CNX Management and the Executives of the CBRTGW, the current status of union/management committees is reviewed. CBRTGW executives state that they will soon run out of credibility with locals unless a clear statement of direction for CNX is issued by the corporation.

September 8, 1980

Presentation by CN's advertising agency on new CNX logo, slogan and message for a communication strategy required to position CNX as an LTL transportation company, in case the market concentration strategy were to be continued. The chosen slogan is "CNX the Heavy Weight Champion". A new logo would be painted on all Express trucks. Publicity materials, both in English and French, would be produced.

September 15, 1980

CN'S corporate executives make a presentation and recommendation to CN's board of directors at a meeting held in Saskatoon. The board accepts the recommendation to withdraw totally from the express business. However, the decision to proceed is conditional upon political support from Ottawa.

September 23, 1980

An assessment of the year-end outlook for 1980 is carried out; the 5-year plan and budgets for 1981-1985 are prepared. Year-end outlook indicates a loss of \$53.0 million, which is \$6.0 million worse than 1979 and \$16.8 million worse than the 1980 budget.

To explain this dismal outlook, a number of reasons are listed: an "abnormal" drop in volume (about \$18.5 millions) in 1980 as compared to 1979 because of poor economic conditions; the significant reductions in the expense base (manpower, vehicles, linehaul costs) were not sufficient

to match volume losses and achieve the planned productivity improvements needed to offset the impact of inflation.

The forecast for 1981 is at a loss of \$46 million. This improvement of \$7 million in net results would be achieved primarily through:

- 1) a sharp focus on the LTL product line to improve the "mix" and increase the revenue per shipment through price increases and the application of truckers' minimums. These actions would be supported by specific advertising programs directed at the LTL market.
- 2) The introduction of a mechanized and centralized terminal balance sheet and increased exploitation of the control systems developed through the TRACE system, which will yield significant manpower savings.
- 3) The completion of the program of extended service area in eleven districts, which will mean a substantial extension of the policy of "add-on" pricing and a further rationalization of the terminal network along with a reduction of unprofitable extended pick-up and delivery routes and on-hand points.

#### October 7, 1980

A critical meeting is held in Ottawa between CN and government officials. CN is represented by Dr. R.A. Bandeen, President and CEO of CN, the President of CN Enterprises, the Vice-President for Personnel, the Vice-President of Labor Relations and Mr. C. Perron, President of CNX.

CN presents its case for the shut-down of the Express Division to three Ministers (Transport, Treasury Board, Employment) and about thirty senior civil servants. CN's proposal is received with little enthusiasm and evokes little support. CN agrees to assist in preparing a memorandum to the Cabinet.



October 20, 1980

The executive committee of CN expecting no immediate response from Government, approves an interim strategy consisting of what was called "market concentration" pending a formal response from Ottawa on CN's request for permission to withdraw from the express business.

October 27, 1980

The board of CN is informed of the Ottawa presentation and approves the market concentration strategy recommended by the Executive Committee.

October 30, 1980

Mr. Perron meets with the head of the union in order to explain the main consequences of the Board's decision to implement a market concentration strategy (drop Rapidex, close terminals, add-ons, up to 1,500 layoffs).

Working committees are set up to jointly devise and implement necessary changes.

November 10, 1980

Negotiations on a special agreement start with Mr. Hunter, Vice-President of the CBRTGW and the five regional vice-presidents. The Special Agreement is signed on November 14, 1980. The CN-CBRTGW agreement, reached after a few days of intensive bargaining, calls for improved job security provisions. These include training for new jobs, relocation expenses for those who are required to move to a new job location and special benefits for employees who meet age and service qualifications for early retirement.

The agreement is considered "one of the most comprehensive job security packages in the industry", according to CN's Labor Relations Vice-President, Mr. Cooke. Jim Hunter, national vice-president of the CBRTGW is quoted as having said "We are not happy about the loss of job opportunities but at the same time we were able to conclude our agreement which hopefully will lessen the impact on employees and allow CN Express to survive" (Keeping Track, Nov. 18, 1980)

#### November 13, 1980

A document is produced on the implications of the market concentration strategy. The following problem areas were identified:

- The implementation of the strategy will have a severe, highly visible impact in terms of lay-offs, services available, shipping costs and "CN's presence" in many communities.
- It may very likely generate vigorous opposition, at first in the communities directly affected but ending up at the national level, in a debate about CN's obligations, priorities, etc.
- There are doubts in the minds of many members of the CNX management team that the corporation will withstand the pressures exerted to change that decision; there was concern about where that would leave them if CN headquarters were to change direction.

#### November 14, 1980

The Executive Committee of CN agrees to a detailed plan of action for the market concentration strategy, including the establishment of a Corporate Co-ordinating Committee for Manpower and Communications. The Committee will monitor all job openings within the CN corporation and give priority to express employees in filling these jobs.

November 18, 1980

The CN news organ "Keeping Track" officially announces the corporate decision to embark CNX on a "market concentration" strategy. It emphasizes the will of the company to alleviate as much as possible the pain of those affected by CNX's fundamental restructuring.

December 3, 1980

Senate committee hearings on CN Express begin in Ottawa. CN is represented by Dr. R.A. Bandeen, Mr. D. Todd, Mr. C.M. Cooper and Mr. Claude Perron.

Mr. Bandeen, President of CN presents to the Senate Committee on transportation, arguments supporting the market concentration strategy. He explains that a rationalization of express operations is urgent as the Express deficit is one of four factors holding down CN's net income. This is particularly damaging as CN faces massive capital expenditures over the next five years in order to maintain current services; and its present level corporate income will not be enough to finance the heavy borrowings that will have to be undertaken.

Bandeen explains that CN Express will now concentrate on large multi-piece shipments, as it is best geared for success in that market. Mr. Bandeen further emphasises that an improved job security package will lessen the impact on employees by making early retirement attractive to CN Express employees with age and service qualifications. He also assures the committee that interline arrangements will be made with local truckers so no community now served will be left without service because of the closing down of selected express terminals.

The Government authorizes the "market concentration" strategy as a way of rationalizing CNX's activities.

December 5, 1980

At a meeting in Charlottetown, P.E.I., the Premier of P.E.I. is informed by the federal Minister of Transport, in the presence of CNX executives, about impending changes at CNX and their likely impact on the Maritime provinces. The Maritimes will bear this blow with more difficulty as CN Express operations are a sizeable employer in this region.

December 8, 1980

At a CN's Board meeting, the Executive Committee recommends the approval of the market concentration strategy. The Board agrees.

December 10, 1980

The President of CN Enterprises meets with the caucus of federal M.P. from the Maritimes to inform them about impending changes in CNX's operations and their impact on the Atlantic Provinces.

December 17, 1980

At a meeting in Fredericton, the Premier of New Brunswick is informed by the federal Minister of Transport about impending changes in CNX's operations.

OTHER ACTIONS TAKEN TOWARDS THE END OF 1980 UNTIL FEBRUARY 1981

December 1 - December 31, 1980

- Price increases in Rapidex tariffs

December 1, 1980 - February 28, 1981

- The closing of 23 terminals in light traffic areas.
- The construction of a new terminal at Pickering, Ontario as a subsidiary to the major operation at Concord (Toronto) terminal.
- The continuation of the program of interlining with local truckers, especially in the Maritimes beyond the core networks with add-on charges.
- The centralization of the line-haul operation at headquarter.
- The continued thinning and regrouping of management ranks to provide a leaner operation, more responsive to the needs of the market.

February 28, 1981

Withdrawal of all Rapidex package tariffs. As a result, Rapidex traffic declines to \$1.7 million in 1981.

March 1981

Increase in tariffs for LTL and Air Express. LTL revenues decrease by \$5.0 million (or 5.4%) vs 1980, or in physical volume from 17.5 million pieces in 1980 to 14.6 million pieces in 1981. Air express revenues increase by 0.9 million, or 11.7% due to rate increases. Negative reactions are expected from shippers as the "add-ons" and the Rapidex tariff

withdrawal will increase their cost of doing business. (Tables 11-16 and 11-17). Intervention by CTC is expected as well as the deterioration of the relationship with CP.

#### March - December 1981

- The closing of 30 terminals and further adjustments in the work force.

Actual employee count at December 1981 was 2,892, a reduction of 1,292 or 30% from the comparable figure as of December 1980. As a result productivity increases (Figure 11-11).

#### April 20, 22<sup>nd</sup>, 1981

CNX management holds discussions with outside consultants. The purpose is to "enlarge the present field of vision of line management and bring a greater range of actions and performance measures into focus". (I.D. Peat, Marwick et Ass., April 23, 1981).

More specifically, management wants to address a number of critical issues such as:

- Finding of a breaking-even formula for CNX in a manageable time frame;
- Estimating the cost of constraints within which CNX is operating;
- The development of general measures of performance that can be universally applied in the organization, but at the same time remain sensitive to differences in traffic mix among terminals.
- The establishment of a number of valid standards for comparison between CNX and other motor transport companies.
- The development of appropriate methods of market segmentation.

**TABLE 11-16**

**IMPACT OF ADD-ONS ON TARIFFS FOR SOME REPRESENTATIVE CASES**

	<u>PRESENT</u>	<u>PRESENT + 10%</u>	<u>CORE + TRUCK</u>	<u>% OF</u> <u>PRESENT RATE</u>
	<u>\$</u>	<u>\$</u>	<u>\$</u>	
TYPICAL MOVE UNDER 200 LBS.				
1 - 25 LBS. - SAINT JOHN - AMHERST	9.01	9.91	15.98	177%
MONCTON - BRIDGEWATER	9.31	10.24	13.64	146%
HALIFAX - GRAND FALLS	10.03	11.03	14.49	144%
QUEBEC CITY - RICHIBUCTO	19.30	21.23	24.00	124%
TORONTO - BRIDGEWATER	20.20	22.22	23.50	116%
LONDON - CHARLOTTETOWN	20.20	22.22	25.00	124%
101 - 150 LBS. - SAINT JOHN - AMHERST				
MONCTON - BRIDGEWATER	11.82	13.00	16.98	144%
HALIFAX - GRAND FALLS	11.90	13.09	17.00	143%
QUEBEC CITY - RICHIBUCTO	14.54	15.99	20.40	140%
TORONTO - BRIDGEWATER	29.50	32.45	32.50	110%
LONDON - CHARLOTTETOWN	40.80	44.88	29.50	72%
	32.65	35.92	40.75	125%

\* FINAL RATES MAY VARY SLIGHTLY. DEPENDENT  
ON CURRENT NEGOTIATIONS WITH CP EXPRESS.

Source: CNX internal documents.

**TABLE 11-16**

**IMPACT OF ADD-ONS ON TARIFFS FOR SOME REPRESENTATIVE CASES** (continued)

	<u>PRESENT</u>	<u>PRESENT + 10%</u>	<u>CORE + TRUCK</u>	<u>% OF</u> <u>PRESENT RATE</u>
	<u>\$</u>	<u>\$</u>	<u>\$</u>	
<b>TYPICAL MOVE OVER 200 LBS.</b>				
201 - 250 LBS. - SAINT JOHN - AMHERST	14.03	15.43	16.58	118%
MONCTON - BRIDGEWATER	11.90	13.09	17.00	143%
HALIFAX - GRAND FALLS	20.74	22.81	20.40	98%
QUEBEC CITY - RICHIBUCTO	39.20	43.12	32.50	83%
TORONTO - BRIDGEWATER	63.20	69.52	36.50	58%
LONDON - CHARLOTTETOWN	44.95	49.45	50.30	112%
 451 - 500 LBS. - SAINT JOHN - AMHERST	22.61	24.80	22.27	98%
MONCTON - BRIDGEWATER	21.59	23.75	27.37	127%
HALIFAX - GRAND FALLS	36.13	39.74	33.03	91%
QUEBEC CITY - RICHIBUCTO	70.70	77.77	54.10	76%
TORONTO - BRIDGEWATER	108.90	119.79	57.50	53%
LONDON - CHARLOTTETOWN	75.70	83.27	83.35	110%

- \* FINAL RATES MAY VARY SLIGHTLY, DEPENDENT ON CURRENT NEGOTIATIONS WITH CP EXPRESS.

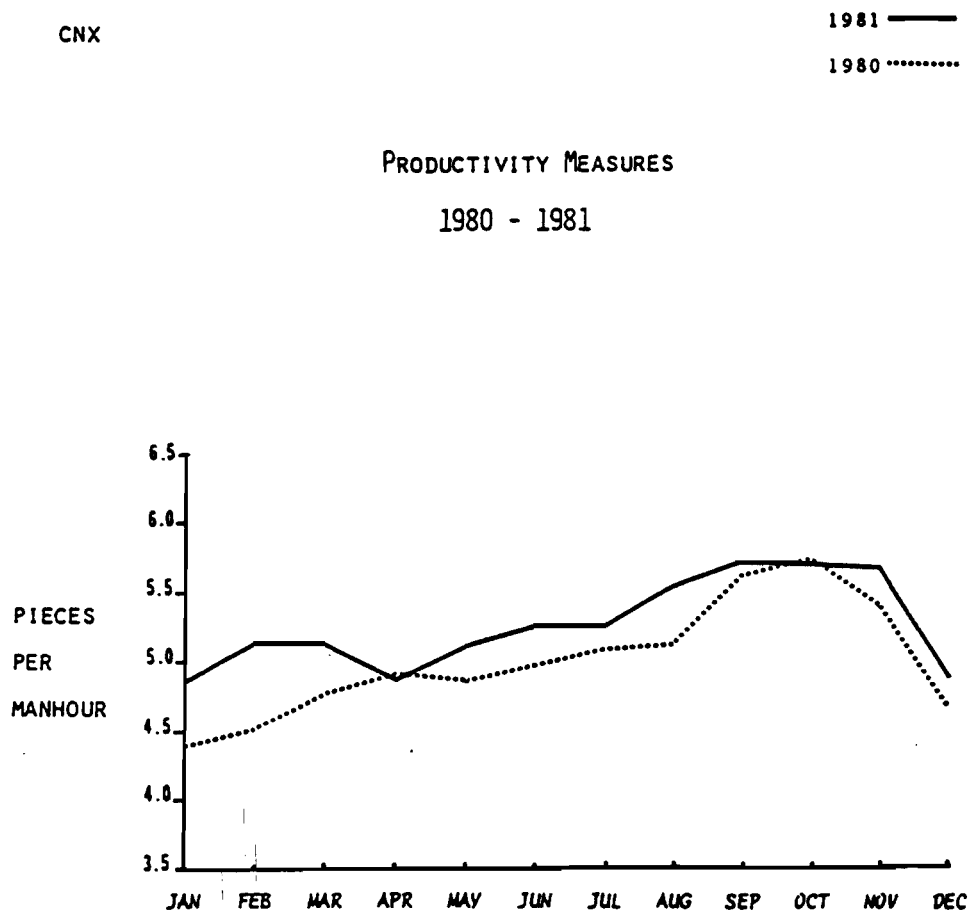


TABLE 11-17

IMPACT OF RAPIDEX WITHDRAWAL ON TARIFFS

	<u>MINIMUM RAPIDEX</u>	<u>22 LBS. RAPIDEX</u>	<u>UNDER L.T.L.</u>	<u>% INCREASE OVER PRESENT RATE TO LARGE USERS</u>
● MONTREAL - TORONTO	\$2.75	\$4.00	\$7.00	255%
● MONTREAL - WINDSOR	3.25	4.50	8.20	252%
● TORONTO - OTTAWA	2.75	4.00	8.25	300%
● TORONTO - QUEBEC CITY	3.25	4.50	10.55	325%
● OTTAWA - WINNIPEG	4.25	5.60	16.40	386%
● HAMILTON - EDMONTON	4.75	6.00	17.65	372%
● TORONTO - HALIFAX	4.25	5.60	17.50	412%
● MONCTON - HALIFAX	3.25	4.50	8.75	269%

Source: CNX internal documents.

FIGURE 11-11

April 28 - May 1st

Meetings between CNX management and outside consultants in search for a break-even formula are taking place. Industry comparisons are discussed. The carriers selected were as follows:

- Consolidated Freight Ways
- United Parcels Services
- Yellow Freight System
- Ryder Truck Lines
- Husband Transport Limited
- Midland Superior Express Limited

Based on the comparison, it was determined that attention should be given to examining CN Express operating expenses by account. Furthermore, indicators of performance should be developed that can be used by line managers in the field to measure daily progress towards expense targets.

- Cost control indicators are agreed upon by CNX management and consultants.

Expenses in 1981 are diminished from \$177.7 million in 1980 to \$143.2 million, a saving of \$34.5 million. These savings resulted from the lower traffic volume, the withdrawal of the Rapidex product early in the year, and the closure of a number of small terminals coupled with productivity gains. This figure reflects the impact of inflation on wages and other expenses, some \$16.8 million.

Revenues amount to \$105,7 million, a reduction of \$21,2 million or 16.7% from 1980. The distribution of revenues for the two years is shown in the following table (Table 11.18).

TABLE 11-18

	1981	1980	Increase or (Decrease)	Percent Increase or (Decrease)
	<u>      </u>	<u>      </u>		
LTL Express	\$ 88,2	\$ 93,2	(\$ 5.0)	( 5.4%)
Rapidex	\$ 1.7	\$ 17.1	(\$15.4)	(90.1%)
Air	\$ 8.6	\$ 7.7	0.9	11.7%
Services Provided to other divisions	<u>\$ 7.2</u>	<u>8.9</u>	<u>(\$ 1.7)</u>	<u>(19.1%)</u>
	\$105.7	\$126.9	( 21.2)	16.7%

Source: CNX internal documents.

The Express division's loss is \$39.9 million at the end of 1981, compared with \$53.1 million in 1980 (Table 11-19).

Due to the increase in LTL tariffs combined with the slowdown of the economy, the volume of LTL pieces has decreased from 17.5 million in 1980 to 14.6 million in 1981, or in relative terms, a decrease of 16.2%.

Concerning Air Express, the volume of pieces has decreased, from 962,000 in 1980 to 936,000, or a decrease of 2.63%. The average number of pieces forwarded per day has decreased from 38,000 in 1980 to 37,000 in 1981.

As a result of discontinuing Rapidex shipments in February 1981, the volume in 1981 dropped to 253,000 shipments vs 3,050,000 in 1980.

Despite the general loss of volume, the revenue per piece has increased for all products. Indeed, for LTL from \$5.35 in 1980 to \$5.76 in 1981, for Rapidex from \$5.62 in 1980 to \$6.50 in 1981, and for Air Express from \$7.97 to \$8.62 respectively.

In terms of costs, despite decreases in the range of 6.4% to 28% for a number of expenses such as billing and collecting, shed, pick-up and delivery, line-haul, terminal, overhead, administration, express operating, interest and others, the total cost per piece has increased from \$8.29 in 1980 to 9.07 in 1981 (Fig. 11-12).

TABLE 11-19

VARIANCE EXPLANATIONS  
 TWELVE MONTHS ENDED 31ST DECEMBER  
 1981 VS 1980

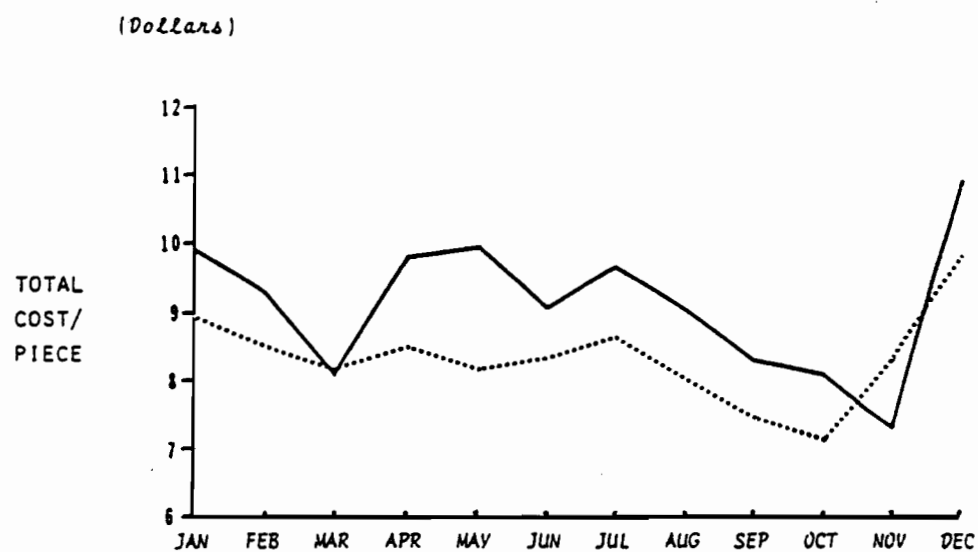
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(\$ million)		
1980 LOSS		(53.1)
<u>VOLUME LOSS</u>		
Revenue reductions	(33.3)	
*Less reductions in variable expenses	26.7	( 6.6)
<u>INFLATION IMBALANCE</u>		
Revenue yield from price/mix change (13.1%)	12.1	
Impact of inflation on expenses (12.5%)	(16.8)	( 4.7)
PRODUCTIVITY <u>IMPROVEMENTS (NET)</u>		<u>24.5</u>
1981 LOSS		<u><u>\$(39.9)</u></u>

\* 60% of external (100% of RAPIDEX) and 80% of internal revenue reductions.

FIGURE 11-12

CNX

1981 —  
1980 .....TOTAL COST PER PIECE  
1980 - 1981

Source: CNX 1981 Annual Report

This situation is due to the more significant increase of such costs as marketing and automotive, the latter including cross charges which were previously allocated to "administration". At an average revenue per piece (considering all products of CNX) of \$6,24 and an average total cost per price of \$9.07, CNX still shows an average loss per piece of \$2.83. (Fig. 11-13).

The loss is down to \$39.9 million by the end of 1981, which compares well only to the forecasted loss for 1981 of \$46. millions. A synopsis of the overall performance of CNX in 1981 compared to 1980 is presented in Table 11-20.

## 1982

### January - December

Continuation with the programs to cut down the size and visibility of CNX.

- o Closure of 26 terminals from 57 in 1981 to 31 by the end of 1982.
- o Reduction in the number of employees in both management and operating, on an equal basis, from 2532 in 1981 to 2388 by the end of 1982.
- o Reduction in the fleet size from 2602 in 1981 to 1100 by the end of 1982.
- o Loss and damage prevention programs are initiated and, as a result, the percentage of claims decreases from 2.4% in 1981 to 2.1% of revenues in 1982.

TOTAL COST PER PIECE —————  
TOTAL REVENUE PER PIECE .....

FIGURE 11-13

CNX



Source: CNX 1981 Annual Report



TABLE 11-20CNX - OPERATING RESULTS FOR 1980 AND 1981

(\$ MILLIONS)

	<u>1981</u>	<u>1980</u>	<u>INCREASE/(DECREASE)</u>	
			<u>AMOUNT</u>	<u>PERCENT</u>
REVENUES	\$ 105.7	\$ 126.9	\$ (21.2)	(16.7)
EXPENSES	143.2	177.7	(34.5)	(19.4)
	<hr/>	<hr/>	<hr/>	<hr/>
OPERATING INCOME (LOSS)	(37.5)	(50.8)	(13.3)	(26.2)
OTHER INCOME (EXPENSE)	(0.6)	(0.1)	0.5	N/A
INTEREST EXPENSE	1.8	2.2	( 0.4)	(18.2)
	<hr/>	<hr/>	<hr/>	<hr/>
INCOME (LOSS)	<u>(39.9)</u>	<u>(53.1)</u>	<u>(13.2)</u>	<u>(24.9)</u>
	<hr/>	<hr/>	<hr/>	<hr/>
OPERATING RATIO %	135.5	140.0	( 4.5)	( 3.2)
EXPRESS SHIPMENTS				
HANDLED (INCLUDES				
O.C.S.) (000's)				
- LTL	2587	3078	(491)	(16.0)
- AIR	652	659	(7)	( 1.1)
- RAPIDEX	254	3050	(2796)	(91.7)
	<hr/>	<hr/>	<hr/>	<hr/>
	3493	6787	(3294)	(48.5)
CAPITAL EXPENDITURES	1.1	4.1	( 3.0)	(73.1)
FUNDS FLOW	(28.1)	(49.4)	21.3	43.1
DEBT RATIO %	37.3	49.7	(12.4)	(24.9)
EMPLOYEES - AVERAGE NUMBER	3418	4739	(1321)	(27.9)
- YEAR-END	2532	4184	(1652)	(35.0)

Source: CNX 1981 Annual Report.

July, 1982

A comparative study between CNX and the five largest U.S. truckers<sup>7</sup> is produced. Despite significant improvements in CNX's performance, the study shows that CNX still has a long way to go to become a successful trucker.

Indeed, on the operations and performance side, significant differences exist in terms of:

- 1) Receivables, expressed by the number of days of revenue sales, that the outstandings are equivalent to. The all-industry average for U.S. carriers over \$10 million is 31 days. The top five range from 23 to 32 with "Consolidated" at 29. CNX's ratio stands at 42.
- 2) In terms of marketing/sales expense, CNX spends, like some of the American truckers (Consolidated, Yellow, PIE) 4% of revenues. However, due to the fact that they have proportionally higher revenues from a fewer number of shippers, CNX has fewer sales hours of effort per customer than they do, and probably fewer per major customer, with the negative consequences of this fact.
- 3) The percentage of fixed costs, in total costs is higher at CNX as compared to the U.S. truckers.

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<sup>7</sup> . Roadway, (\$1,153,826,000 gross revenue)  
  . Consolidated (\$936,354,000 gross revenue)  
  . Yellow (\$776,461,000 gross revenue)  
  . PIE (\$408,381,000 gross revenue)  
  . Spector Red Ball (\$408,381,000 gross revenue)

The data for this comparison are taken from an internal document titled "Differences between CNX and the five largest U.S. Truckers", by W.J. Piggott, July 5, 1982.

- 4) Concerning the weight/shipment and the mix of traffic, CNX is moving in the right direction but a long way behind. While Consolidated averaged 713 pounds on 31,000 LTL shipments in 1980 and reached about 800 pounds per shipment in 1982, CNX, although in the right direction has moved in the same period, from as low as 210 lbs/shipment to only 321 lbs. Furthermore, in terms of the mix of traffic, some of the American truckers (i.e. Consolidated and Yellow) have increased the number of shipments below 100 lbs and priced them accordingly. Both are prepared to do this as long as they have enough heavyweighted LTL shipments to keep the average high. The mix of LTL is the key with each terminal, knowing what part of the mix they are lacking and effectively selling that part. As for CNX, it is not yet at the stage where each terminal knows what mix implication is, nor where to get the missing part.
- 5) The trailer load (TL) revenue as a percentage of total revenue is considerably higher amongst the "big four", than with CNX. The spread is from 22% at Consolidated to 42% at PIE. With CNX, only 4% of the revenues are coming from TL, because truckload traffic is the preserve of another CN entity, CN Trucking.
- 6) In data processing CNX is roughly equal to the big American truckers with same disadvantages in the customer information area and some advantages in operational benefits. Any attempts to match the "big four" are constrained by the CNX lack of higher revenues; the "rule of thumb" in the data processing industry is that production should not exceed  $2\frac{1}{2}\%$  of revenue. CNX is already at about 4% in 1982.
- 7) In terms of claims, the ratio of the top five is the same with the one of CNX, i.e. between one and two percent of revenue.

- 8) Costwise, the big U.S. truckers are more efficient than CNX. Indeed, CNX's P&D costs, as a percentage of expenses is 21% compared to 13% for PIE and 17% and 19% for Consolidated and Yellow respectively. However, as compared to 1980, they are going in the right direction. Concerning the line haul costs as a percentage of expenses, CNX costs are lower because it uses piggyback and boxcars, whereas the U.S. truckers use highway nearly exclusively. Highway costs more, but it is faster, has no peak cut-offs, and can be used as a tool in providing a continuous peak-free workload. Furthermore, the American truckers have higher line haul costs because, as shown by their high percentage of revenues from trailer loads, they pickup and deliver often in the same unit. For example, PIE gets 43% of its revenues from trailer loads (TL), and has as a consequence, very high line haul expenses (58% of expenses), the lowest P&D costs (13%) and the lowest shed cost (12%). CNX, with only 4% of revenue coming from trail load, has considerably higher P&D costs (21% of expenses) and extensive shed activities, with costs, which only due to the computer system, remain in the line with the industry (16%). The differences in the cost structure of CNX versus the big U.S. truckers can be explained mainly on three counts: 1) the use of piggyback and boxcars, 2) the avoidance of competition with the CN Trucking, a company managed at arm-length by CN and which does mainly TL traffic and 3) an insufficient client selectivity policy, which has as effect, the acceptance of small casual shipments, high P&D and shed costs.
- 9) U.S. terminals have fewer doors than those of CNX, transfer terminals are built at strategic sites, and where they are in the same site with pick up and delivery ones, they are separated at least operationally. There is total flexibility in manning, workers are called in according to the volume of traffic actually existing in a certain day, and a trailer (38,000 - 40,000 lbs) is expected to be sorted, unloaded and stored, by one man in 8 hours. A driver is called only two hours before an outbound unit is ready. Traffic is staged for the outbound unit to keep

traffic together and build high density loads. This is rarely done at CNX, moreover that flexibility in manning cannot be achieved because of the union's constraints. The biggest difference, which translate in lower costs, is that the U.S. truckers varies the number of men needed from shift-to-shift to coincide with the fluctuating volume, on between 8 and 24 hours notice. CNX does not; even worse, the billing and collection office is unionized and subject to displacement from other parts of CN. Generally at U.S. truckers, offices are non-unionized and are part time to a greater extent than at CNX. The payroll and fringe benefits combined represent 77 cents of each revenue dollar, at CNX. At the U.S. truckers, they are only 59 cents. Nevertheless, due to higher revenues their take home is higher. Despite an increased efficiency in the shed, CNX has 35% more employees than Americans do for the same amount of revenue. They have .017 employees for every \$1000 in revenue, whereas CNX has .023. The biggest difference in employee count is in the "overhead categories", including terminal. Overhead dollars as a percentage of expense range from 8% at PIE to 10% at Yellow, to 12% at Consolidated. At CNX is 27%.

- 10) The percentage of expenses devoted to billing and collections among the top five carriers is 2%, while CNX's figure is 11%. The explanation is two fold: first, CNX has a larger number of small and casual shippers than others, and second, the newly installed collection system requires some time to be fully adjusted.

Furthermore, a look at some structural dimensions reveals that fundamental differences exist between the American truckers and CNX, in philosophy and mode of functioning, which may impede CNX to ever become profitable.

The most important difference is in the system of pay and compensation. Indeed, in the case of the five top American truckers, the "operating ratio" determines how much money the Terminal Manager, Sales Manager, sales people and operating people make. As an Express officer puts it: "The American terminal manager, and therefore the people who depend on him, live or die based on the operating ratio". (I.D. "Differences between CNX and the five largest U.S. Truckers", 5 July, 1982). Furthermore, since many of the "American truckers are public companies, staff incentive pay is used, that is, each gets a graduated number of common shares. There is also additional bonus money based on bottom line performance. For instance, at "Consolidated Freight", the Terminal Manager could make up to 70% of his pay, in bonus money, with the sales and operating Manager obtaining a lesser amount.

The fact that CNX operates under the same union conditions as CN Rail and that even office employees are unionized, reduces its flexibility and its functioning at the lowest possible costs. For the same level of revenues, CNX employs 35% more people than American firms; and even worse, CNX cannot vary the number of employees needed from shifts to coincide with fluctuating volume.

Furthermore, the strategies pursued by these five top American trucking firms differ from CNX's actions in critical ways. First, concerning product lines, the American firms operate several divisions, that is Freight Forwarding, Container Consolidation and Contract Hauling. CNX concentrates presently on LTL exclusively.

Second, concerning territorial coverage, the American firms reduced the number of interline carriers they deal with and resort instead to an active strategy of acquisitions. Indeed, they add smaller companies to their network and do not allow them to retain their identity.

Third, American truckers went international; that is, they move traffic to and from the U.S., to and from Canada and Mexico respectively. CNX is significantly different in this respect, as it started to get some international traffic in 1982, "almost by accident, without any solid plan" as an Express Officer puts it. (Idem p. 8). Indeed, CNX has not yet joined international tariff bureaus that regulate international traffic movement, nor had it established an effective coordinating organization for this purpose.

### August, 1982

- The completion of the implementation of the terminal based units, which means that terminals are established as fully integrated sales/operations business units.
- The new organization structure (Figure 11-14) is now fully in place.
- The completion of the implementation of the TRACE system - the divisions on-line operating and management control system.
- The centralization at the headquarter level of the automotive equipment and accounting, with the resulting benefit of major cost savings.
- The continuation with promotion of the image of the division through the new CNX Logo to emphasize the change to the "Heavy weight LTL" trucking operation and style.

### Overall Performance

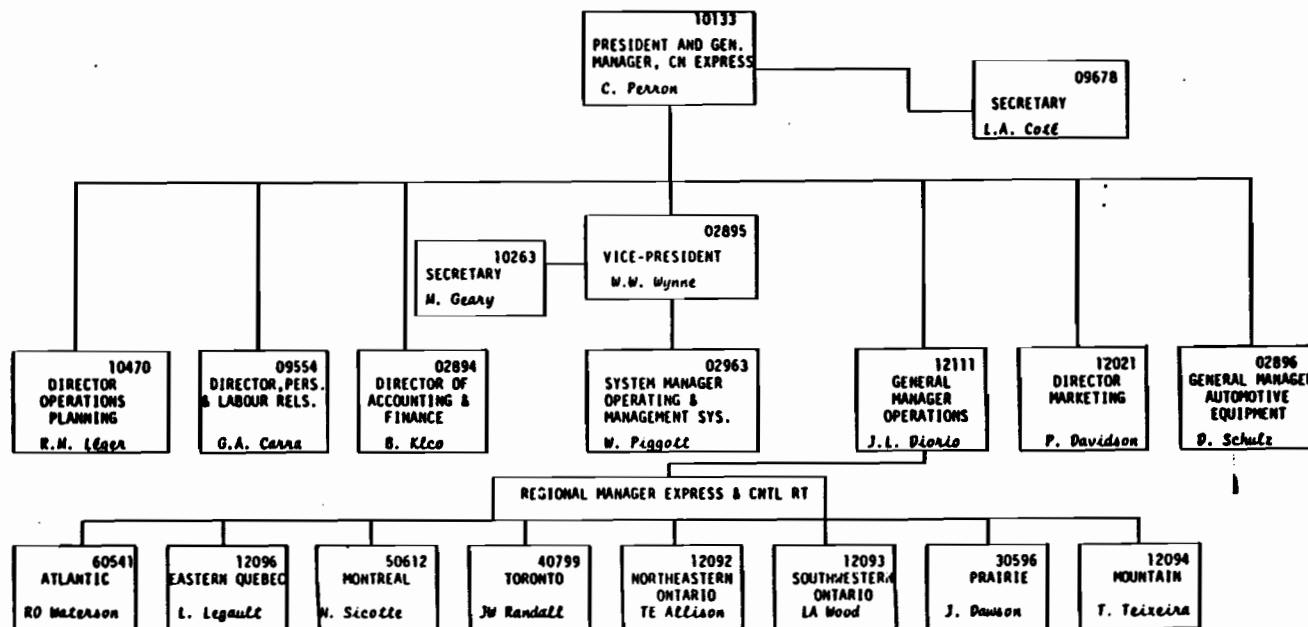
As an effect of the market concentration strategy, the revenues have decreased in 1982 by 10% as compared to 1981, that is from \$105.7 million to \$94.1 million.

**FIGURE 11-14**

**CNX'S ORGANIZATION STRUCTURE (1982)**

**ADMINISTRATION**

**CHART 1**



Source: CNX Annual Report 1982.



Deficits have been reduced by \$10.1 million by the end of 1982 from \$39.9 to \$29.8 million. When compared with the 1981 five-year forecast for 1982 of \$40.4 million, this reduction in deficits seems even more positive (Table 11-21).

The shipments handled dropped by 30% from 3,493,000 in 1981 to 2,270,000 in 1982 due mainly to the cancellation of Rapidex (3 million) pricing to discourage small and to generally poor economic conditions.

- The productivity has continued to improve as shown by the measure number of pieces per manhours of 8.5 in 1982 vs 6.5 in 1981, an increase of 30%.
- An improvement in the quality of the traffic mix occurs due to pricing actions to discourage small; the revenue per shipment increases from \$30.26 to \$41.44 or in relative terms an increase of 37% in 1982.
- On time, shipper to consignee performance as the measure of reliability of service compared to capability has improved by 1%, from 78% in 1981 to 79% of the cases in 1982.
- The loss of small and the redirection of sales effort to LTL produced an increase in the average weight/shipment from 232 lbs (1981) to 321 (1982), a 33% increase. In the first 6 months of 1982, a significant gain of 9% has been achieved in the most competitive 500 - 20,000 weight range even in the face of 15% overall market decline.
- Sales and price actions have reduced the size of the customer base. The number of customers is decreased together with an increase in the annual revenue per customer.

A synopsis of the CNX performance for the actual three years of turnaround (1980, 1981, 1982) is presented in Table 11-22.

TABLE 11-21FIVE-YEAR FORECAST - 1981 - 1985Five-Year Operating Forecast

(\$ MILLIONS)

	1980	1981	1982	1983	1984	1985
Revenues	128.6	145.1	161.1	178.8	198.4	220.3
Expenses	179.4	188.6	199.0	210.8	223.4	236.6
Net Before Interest	(50.8)	(43.5)	(37.9)	(32.0)	(25.0)	(16.3)
Interest (NET)	2.2	2.5	2.5	2.6	2.6	2.8
Net After Interest	(53.0)	(46.0)	(40.4)	(34.6)	(27.6)	(19.1)

Source: CNX internal documents.

**TABLE 11-22**  
**CNX - OPERATING RESULTS AND PERFORMANCE**  
**INDICATORS FOR 1980, 1981 AND 1982**

<b><u>OVERALL PERFORMANCE</u></b>	1980	1981	1982
Total Revenue	\$ 126,6	\$ 105,7	\$ 94,1
Losses	\$ 53,1	\$ 39,9	\$ 29.8
Shipments handled (000)	6 787	3 493	2 271
<b><u>SIZE OF OPERATION</u></b>			
Number of employees	3 804	2 532	2 388
Number of terminals	87	57	31
Fleet size	2 546	2 602	1 100
<b><u>QUALITY OF TRAFFIC MIX</u></b>			
Revenue/Shipment	\$ 19,10	\$ 30,26	\$ 41,44
Average Weight/Shipment (lbs)	210	232	321
<b><u>SERVICE PERFORMANCE AND PRODUCTIVITY</u></b>			
Shippers to consignee (on time performance)	75,0%	78,0%	79,0%
Pieces per man hours	6,5	6,5	8,5
Claims as a % of revenue	3,0	2,4	2,1

Source: I.D. CNX 1982

In late 1982, a special task force is formed and chaired by the ex-president of CN Holdings, to study the feasibility of merging CNX with CN Trucking. In January 1983, they recommended the integration of CNX and CN Trucking in one division with headquarters in Toronto. This recommendation was approved and has been implemented during the course of 1983.

- The board of directors of CN passes a resolution praising the job done by Perron and his management team in turning around CNX.
- In 1983, Perron becomes assistant vice-president in the strategic planning group at CN headquarters.

## **CHAPTER - 12**

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### **A CONCEPTUAL INTERPRETATION OF THE STRATEGIC TURNAROUND AT CNX: DYNAMICS AND PROCESSES**

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## 12.1 Introduction

This chapter attempts to weave into a coherent pattern the events, actions and decisions described in previous chapters and enriched in this chapter by the verbatim recollections of key actors of that period. It provides this researcher's interpretation of the dynamic interplay among events impinging upon an organization and actors struggling to extricate that organization from its predicament.

However, Figure 12-1 is offered as a reminder of the organizational arrangements and product decisions over the entire life of CN's express operations. This chapter, as indeed the whole thesis, focuses on the period 1976-1982 during which CN Express functioned as a division with the urgent task of turning around a dismal performance.

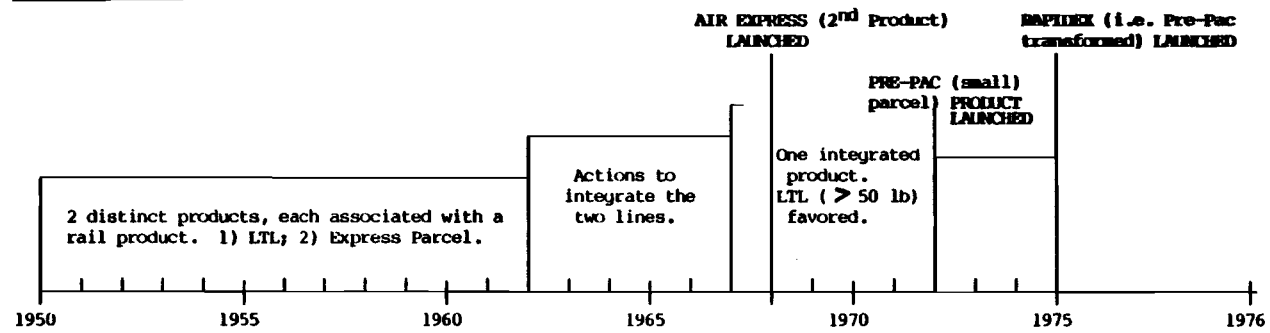
When CN Express acquired division status in 1976, it ended its historical role as an adjunct to CN Rail. Setting CNX as a division was part of structural changes brought about by President Bandeen's determination to create a climate favorable to a commercial orientation at CN. Indeed, Bandeen was at that time trying to carry out a fundamental transformation of CN's values, ways of thinking and managing.

Having dealt with the financial drain of passenger rail service by getting the government to pass the burden to Via Rail (a new Crown corporation), Bandeen turned his attention to the express service with its large and now very visible losses. Commenting on these events, Bandeen stated:

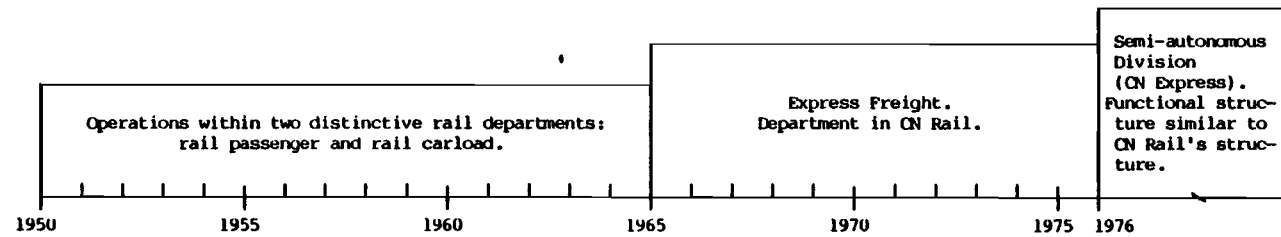
I recognized Express as a problem as early as 1960 when I proved that they were losing money. The people in charge of Express would not recognize the data, pretending that the way I was trying to separate things into parts was not right. When I became president, I separated CN into parts to see the exact results. I was proved right. They were losing \$34 million. (Interview, 20 June 1983).

The fact that CNX was in deep financial troubles, now made glaring and unavoidable by CNX's status as a division, created a sense of ur-

# PRODUCT STRATEGY



# ORGANIZATIONAL STRUCTURE



gency and led to short-term actions to improve the situation, but no general consensus was reached as to basic causes and solutions.

"In 1976, when the division was created" an Express officer said, "the purpose was not to become a trucker, but to provide focus for the headquarter, as to whether the express business was making money or not. When we realized the losses, we tried to make Express efficient. The motto was: we will do the same thing but better." (Interview, 3 December 1983).

Indeed, the period 1976-1978 was characterized by a continuing search for measures to stop the bleeding of the division and by a series of actions to improve somewhat the financial situation of CNX. Unfortunately, the effort was to no avail. Deficits continued to grow, reaching \$37 million by 1978 and \$47,3 million by 1979. A perplexing question started troubling management: why did these measures, all of them "prima facie" logical and appropriate, fail to stop the bleeding of the Division, or even reduce the size of the deficits?

## **12.2 STAGE I: Holding Fast to the Wrong Course of Action (1976-1978)**

The diagnosis of the task force in early 1980 sheds some light on this issue: the remedial actions taken between 1976-1978 all flowed from a belief on the part of management that CNX's problems resulted from operational malfunctioning, such as inadequate rates structures, insufficient volume, the lack of adequate productivity (CNX functioned with too much "deadwood"), poor cost control in operations, etc.

As a manager put it: "The president at the time would not listen very much. His solution was pricing and cost control, assuming that the system was efficient". (Interview 29 June, 1983). "It seems pointless to discuss strategy and planning", asserted a consultant to CNX in those days, "until this current operational situation is resolved." (Sept. 9, 1979).



Figure 12-2 provides a summary of the key events and results during this period which must be interpreted and made meaningful at this juncture. In retrospect, one must ask: Why was it so difficult to question the basic assumptions of CNX's present course? Why was management so impervious to signals of fundamental, systemic problems at CNX?

To the extent that culture imbues actors with particular mind sets and world views, it had powerfully conditioned the definition and range of strategic options considered at CNX in the period 1976-1978. Not to put too fine a point on it, CNX's management viewed the world and CNX through a set of highly structuring assumptions derived from rail operations. To escape from the grip of a structure of mind shaped by years of functional adherence to operating and management principles, is a rare feat.

The basic tenets of that world view were as follows: CN has a legal obligation to offer transportation services in a non selective manner to the broad Canadian market; CNX is helping CN to fulfill this public service mandate at lower costs than would be obtained by rail coverage; CNX may nevertheless become profitable even under those conditions, if sufficient volume is obtained, prices are well managed, costs kept under close control; the best way to achieve these desirable characteristics is to go after volume and handle it through large integrated terminals affording maximum economies of scale.

As Bandeen put it: "The express activities were run by rail operators" (Interview, June 20, 1983). But in designing the new CNX organization, CN's management reproduced some of the characteristics typical of the railway business.

**FIGURE 12-2**

**Key Indicators of Performance and Strategic Actions  
at CNX (1976-1978)**

Revenues	(\$116.3)	(\$112.7)	(\$117.9)
Losses	(\$34.0)	(\$35.0)	(\$36.0)
REVENUES/LOSSES (millions)			
	(6.338)	(5.900)	(5.470)
MANPOWER			
95			92
NO. OF TERMINALS			Consolidation and construction of large Montreal and Toronto terminals
Rev./shipment	(\$15.51)	(\$14.83)	(\$13.55)
Ave. Weight/ Shipment	(140 lbs)	(140 lbs)	(160 lbs)
OPERATING INDICATORS			
PRODUCT LINES (Million \$)	<div> <div>LTL \$103.8</div> <div>RX \$5.4</div> <div>AIR EXPRESS \$7.1</div> <div>Introduc- tion of Rapidex Special</div> </div>	<div> <div>LTL \$96.3</div> <div>RX + RXS \$9.3</div> <div>AIR EXPRESS \$7.1</div> <div>Introduc- tion of Rapidex Air</div> </div>	<div> <div>LTL \$95.6</div> <div>RX + RXS \$14.7</div> <div>AIR EXPRESS + RX AIR \$7.6</div> </div>
ORGANIZATIONAL STRUCTURE INFORMATION AND MANAGEMENT SYSTEMS	CN as a Division (railway type structure)	Work on Trace begins      Manning Standards Programs	Implementation of Traffic Lane and Terminal Cost System  Perron as VP Marketing
	1976	1977	1978 (July)

### 12.2.1 A Top-Down Organization

Indeed, the structuring of the CNX Division in 1976, with a centralized line of authority, a four-region geographical set-up, and terminals operating as mere loading and unloading facilities, is a miniature replica of the CN rail organization. Commenting on the issue with perfect hindsight, Bandeen stated: "The business was run using a railway distribution system". (Interview, June 20, 1983).

A CNX manager commented on the nature of accountability and responsibility:

"Before 1979, we were a corporate-oriented organization as opposed to a bottom-line organization. To define the former, let's take an example: as a regional manager, you were not oriented bottom-line; in other words, you did not encounter all the costs of your endeavours. They were known only at the headquarter level. As a result, as a regional manager, you were not aware of bottom-line operation ratios. The fully allocated costs of the terminal were not known. (Interview 27 January, 1983).

Other expressions of a top-down style of authority and unidirectional information flow abound in the comments of several managers of that period:

"The president (then) had a high control on all the systems. He monitored a number of key indicators: revenues per day, per shipment, number of pieces per shipment with a strong emphasis on the control of expenses. The powers of regional managers were also very large. They had control on the field operations. The regions were managed pretty autonomously; they were power centers, they had the accounting, the equipment maintenance, the personnel function in their control (27 June, 1983).

Another Express manager stated:

"There was not much to motivate you. People were not used to think for themselves. It was a very centralized

and authoritarian type of management. Top to bottom line of authority. Rather bureaucratic, many rules and documents. Before making a decision one had to check, and check all over again. Expectations from employees were: to be better than a statue". (Interview, Jan. 27, 1983).

Despite the fact that the newly created division was intended to be a profit center, the interface of marketing and operations was weak at the regional and terminal level, as in the railways.

The terminal manager was less concerned with sales. He was responsible for expenses. In Express, only the General Manager was responsible for Revenues and Expenses. At CN Rail, this responsibility was even higher up in the hierarchy. (Interview, 28 January, 1983).

Many employees at the operating level had a fairly good idea of what CNX's root problems were, as shown in the documents and opinions collected by Perron when he consulted broadly the operational people upon taking over the presidency. However, up to that point, their views and advices had never filtered up to top management who, in any case, was little inclined to listening to wisdom from below.

Even Perron's tour was more a "human relations" gesture than a quest for strategic solutions. The evidence shows that he followed up on a number of personnel problems and irritants raised during these meetings, but that he did not hear the inchoate diagnosis contained in the opinions on CNX's market strategy. This same diagnosis and derivative solution gained credibility only when arrived at, and presented in a structured and formal manner, by consultants a year later.

#### **12.2.2 A Legal Obligation**

The tenacious insistence that CNX had to offer its services by itself to the entire Canadian territory represents the overt expression of a strongly ingrained CN rail assumption that "CNX is a national

carrier serving many geographical regions and providing service required by the public interest".

The former president of CNX was adamant on that subject:

"Under the Railway Act we have to give service to all communities. In isolated areas you lose your shirt, but you have to go by law. In many areas we succeeded to go only 3 times per week instead of daily. Ottawa always reacted". (Interview, 10 May, 1983).

Another manager explained:

"Before 1979, CNX was a railway oriented division in terms of rules and regulations; for instance, you did not do any interlining." (Interview, 27 January, 1983).

### 12.2.3 Efficiency Through Integration and Volume

The market decision to offer two very different product lines, small parcels and LTL, through an integrated operation geared for LTL business, offers a telling example of a decision structured by the railway assumption that "volume and economies of scale are key factors for survival". The addition of the volume discount "Rapidex special" compounded CNX's problems but not in the view of the management at that time.

"Rapidex was a profitable business; the new management has decided to get out of it. My opinion was that you get to save if you add another product on a by-product basis. The same building, the same people, the same facilities... If they had kept both Rapidex and LTL with the Trace system, they would have broken even by now or made profit, because of the volume. Express is a volume business. If you don't get it, you might as well get out of it". (Interview with former president of CNX, 10 May, 1983).

A railway assumption is at work here. In that business, any extra volume can only help, as almost any tariff will cover variable costs and contribute somewhat to the high fixed costs involved. For instance, the costs of passenger traffic could be recouped somewhat by handling small parcels over the same routes, at little additional costs. This "wisdom" was extended to the Express business, with the Rapidex - LTL integration.

"Rapidex and LTL are complementary. For example, take Montreal-Toronto, a trailer of LTL traffic. Your goods are light but voluminous. You can add some packages on it up to the weight limit. You can unload it indoors in two sheds side by side". (Interview, 10 May, 1983).

A long time Express manager admitted:

"The CNX department was made of too many railroaders. They had preconceived ideas about how to do business. For instance, they thought that volume is good, revenue of any sort is good, instead of saying "here is the cost, we shall charge a little more" or "every customer has to pay its way"; the main performance indicator was ton-miles, a volume measure".

Another manager stated:

"The criteria for promotion and success were mainly two at CNR, and the Express before 1979 was very similar, in this respect: first, volume of business, the more the better, because of very high fixed costs in the railways, regardless of price and profitability; second loyalty". (Interview, 20 January, 1983).

Still another manager opined:

"Before 1979, the Express was rail oriented in terms of doing things. Criteria of promotion were surpassing the volume to be sold and seniority". (Interview, January 27, 1983).

Another manifestation of a railway-inspired search for economies of scale, appears in the construction of two huge terminals (in Montreal and Toronto) where all traffic were to be channelled and handled with state-of-the art, automated, equipment. The fact that these proposed terminals were to be larger than any other operated in North America, should have created some discomfort. American studies of the trucking industry had shown repeatedly that there are but modest economies of scale in terminal operations and that beyond a certain size, diseconomies of scale actually set in (Wyckoff, 1976). That evidence had led American trucking companies, much larger than CNX, to operate a string of medium-sized terminals.

This information was easily available in the mid 1970's. Yet under the spell of CN Rail's operating assumptions, the management of CNX centralized in mammoth terminals all traffic going to and from Montreal and Toronto. This turned out to be a disastrous decision. Both terminals, cluttered and overwhelmed by the huge number of shipments to be handled, were terribly inefficient, caused heavy losses and a substantial reduction in the level of service for the whole CNX system. Eventually, CNX had to construct a smaller terminal in Toronto to alleviate somewhat the problems.

In its quest for cost efficiencies through raw volume and large integrated operations, CNX was chasing shadows. The evidence presented in chapter 6 is compelling: the trucking industry shows no significant economies of scale as a function of raw volume; success in that industry depends in large part on specialization and proper selection of clients and shipment characteristics. The trucking industry is a grouping of separate and distinct firms serving different types of client/shipment configurations under different conditions and with different cost functions.

#### **12.2.4 A Losing Combination**

The interplay of these two assumptions: that any volume was desirable and that CNX had a public responsibility to provide service to all of Canada, created a very difficult situation for CNX. It molded CNX into a generalist organization expected to carry "everything for everybody, everywhere", which was eroded, and torn to pieces, by a variety of specialists offering services with better quality/price ratios.

Specialists design their organization so as to provide at best possible costs, the kind of service a segment of clients desires. They then market their services intensely to these specific clients, channeling to generalists undesirable business coming their way. Of course, these specialists are geared to serve shippers with high volume of desirable shipments, leaving to the generalist the large volume of shipments generated by low-volume shippers and low density lanes.

"Before 1979, we were perceived by the public as a Post Office for bigger parcels; we did a lot of business but without knowing what kind of traffic we should go after. We did not know that you can only be in one or the other type of business, that is small or LTL. In 1979, we realized that we were not equipped to handle small traffic, to deliver for instance, a 2 dollars parcel with an LTL truck. It did not make sense". (Interview, 4 February, 1983).

The consequences for CNX were inevitable: a) an operating system crowded by a large number of shipments generated by a large number of shippers with a vast geographical grid of pick-ups and deliveries; b) as a result, a generally low quality of service which pushed service-sensitive shipments (usually from high volume shippers) towards specialists; c) suffering from the poor quality of CNX's services in offering their products, CNX's salesmen, accountable for volume, would play their only card: prices. The introduction of Rapidex Special discounts made the process even easier. Salesmen could offer substantial discounts and did so even when shippers did not qualify. As three products (LTL, Rapidex and Rapidex Special) with very different levels of price and very similar coverages, were offered by the same salesmen, it was easy for shrewd shippers to obtain CNX's best prices regardless of product specifications. In time, such pressures led to a gradual bastardization of all features of Rapidex and Rapidex Special to such an extent that these products eventually came to resemble LTL (for shipments of less than 50 pounds) but with a substantial discount off LTL prices. In these circumstances, Rapidex and Rapidex Special were huge "successes" when measured by their volume growth.

The causes of CNX's problems, its high unitary costs, low revenues per shipment, and poor service, were systemic rather than operational, and could not be corrected by the piecemeal corrective actions taken until 1980. Even with improved cost controls and strict observance of the Rapidex product's features, the results would have been, to a large extent, the same.

It should be observed that the grip of these two critical assumptions (volume and public service role), seeded by the particularities



of the CN rail organization, was very strong at CNX's headquarters but a good deal weaker with employees who had close and continuing contacts with the realities of the market. Operating employees, at the first opportunity, voiced their concern over a market posture they found untenable. Salesmen saved their jobs by getting volume through whatever means (largely pricing) were available, but were not blinded by CN rail's culture to the predicaments of CN Express. Offering Rapidex Special prices to shippers who obviously did not qualify, was a tough-minded means of coping with the demands of a system that had run amock. It did not reflect a commitment to salvation through volume.

Unfortunately, a hierarchical style of management which located wisdom at the top (and ultimately at headquarters) prevented the free flow of information and feedback from the trenches that might have led to some tough (and earlier) questioning of critical assumptions at headquarters.

Two additional characteristics of the CN rail culture and structure seemed to have played a role in delaying effective actions during that period: the obsession with cost knowledge and the prevailing time horizon for planning and action.

#### **12.2.5 Cost Knowledge as a Prerequisite to Action**

When CNX was first formed as a division in 1976, available cost data were of course very limited, consisting mainly of aggregate figures. CNX's long-standing role as an adjunct to rail operations meant that no historical data or times series had been collected to inform management about the costs of specific services and specific lanes, and as to the behavior of various cost components (P+D, line haul, office, shed, etc.).

Over the preceding ten years, since the National Transportation Act of 1967, CN Rail had become intensely preoccupied with cost knowledge, a requirement for competent pricing of rail services under the

new commercial freedom granted by this Act. CN Rail had designed and implemented a very elaborate and sophisticated computerized information system (called TRACKS) to monitor and control operations and to produce the required cost information. This system, developed over the course of many years, proved very successful. It greatly improved the efficiency of operational control and the quality of management information. It became an indispensable tool in making finely calibrated decisions on pricing of services and on management of equipment.

Given the emphasis on cost knowledge at CN and the success of these actions, it is not surprising to observe CNX's management opting for a similar course of actions. It set up a large and costly operation to design and implement its own computerized operating system (called TRACE) which was to provide vastly improved cost and operational data and lead to a substantial reduction of clerical personnel. The management also hired consultants to design a cost information system (called TLTPS!) that would use as inputs the cost data produced by TRACE.

Having undertaken (and pinned their hopes on) these large projects which would require a few years to complete, management had now become paralyzed when it came to considering other strategic avenues or taking new major actions. For, how could management act without the detailed cost information that had become at CN a prerequisite to any sound and competent decision making; and, furthermore, how could management take major actions without waiting for the assistance of these new systems it was developing at great expense to the corporation.

As it turned out, the diagnosis of CNX's ills and the radical actions eventually taken, were arrived at on the basis of general considerations of market structure and dynamics supported by data that were easily available at the time.

#### 12.2.6 The Prevailing Time Horizon at CNX

In a railway organization, major decisions unfold over a long period of time. The addition or renewal of equipment, changes in railway trackage, the financing of capital expenditures, all require careful planning and many years to implement. Once committed to a course of actions, it must be implemented as planned, come what may. As a consequence, analyses are long and abundant before any commitment is made; plans are detailed and careful with sufficient time allowed to carry them out effectively. As is typical of oligopolies with large capital expenditures and long cycles of implementation, the firms' own actions are highly structuring of markets and industries. Firms in such contexts cannot change their supply capabilities overnight, nor can they change swiftly their plant configuration. Therefore they must live, for better or worse, with their long-range capital investments decisions. Pricing among competitors, all subjected to these same contingencies, tends to fluctuate around a level providing an adequate long-term return on investments (except when substitute products can pressure the industry).

As CNX became a somewhat autonomous division in 1976 and the size of its financial problems became evident, management took some actions, but more in the spirit of the CN organization, it prepared 5-year plans, filled with what they considered energetic actions, all leading to a profit situation by the fifth year of the plan (and of course, the coming of that happy event was moved out in time by one year each time the annual exercise of the five-year plan was repeated).

The point is however that, judged by the standards and tempo of actions typical of rail organizations, the plans of actions proposed by CNX's management verged on the frenetic. By the standards of the nervous, hyper-kinetic trucking industry (where a five-year plan would be a slightly ridiculous oddity), these were ponderous, technocratic and snail-like; but the frame of reference of CNX's top management was

not the trucking industry. It still functioned in the pervasive ambience of CN Rail.

The best evidence of CN Rail's mind set at work in CN Express is offered in a long report prepared in 1977 by the senior Vice president responsible for all the trucking and express activities of CN. The document titled "Is the five-year plan achievable" offers a year-by-year, point-by-point exegesis of CNX's five-year plan. After a number of recommendations, some of them right on target, others way off the mark (but all of them given equal weight), the report concludes that the plan is achievable if management becomes convinced that "we achieve what we plan", that, on no account, "should deviations from the plan be tolerated."

As was made clear in chapter 6, the LTL and small parcel market is made up of a large number of competitors who can swiftly adjust to changes in demand, quickly modify their supply configuration; it is characterized by easy entry (and exit) of competitors. But CNX's plan was assessed, found adequate, and CNX's management was urged to carry it out with punctilious determination, as if CNX were operating in the oligopolistic and capital intensive railway industry.

CNX's results having failed to improve over the period 1976-1977, Bandeen (with the concurrence of the senior vice-president responsible for express) took the step, extraordinary in the CN tradition, to parachute an outsider as Vice-President for marketing of CNX, with the implicit intention of making him president of the division.

This action by CN's top management is an indication that corporate headquarters entertained doubt about the diagnosis of the Express problems and about the effectiveness of remedial actions taken since 1976.

### 12.2.7 Conceptual Interpretation

This first stage offers a parallel to what Johnson and Wallace refer to as a "period of individual stress due to value-environment dissynchronization". It is also consistent with the empirical findings of the Swedish school on discontinuous changes in organizations. In their parlance, discontinuous change often begins with a period of "subjective uncertainty" and decline in performance due to a lack of correspondence between myth and reality (Hedberg & Jönsson, 1977) or between managers' prevailing cognitive structures about the firm's economic position and actual events. (Nystrom, 1974).

#### A period of individual stress and cultural distortion

Indeed, at this stage, CNX offers a typical case of an organization poorly adjusted to its market contexts (linkage "a" in the model of radical change presented in this thesis). The causes and processes through which such a misfit, may occur, are legion.

However, what we have here is not merely a technical misadjustment which can be corrected by a quick overhaul of market strategies or operating systems. The misfit results from "value-environment dissynchronization"; that is, the requirements of the market environment in which CNX is attempting to compete are dissonant, at odds, with the prevailing assumptions and values within CNX. The exigencies of an agile, terminal-based, client-selective firm clash with the modes of thinking and operating of a rail-dominated, state-owned corporation.

The continued poor performance of CNX led to what Johnson-Wallace call "cultural distortion" and the Swedish researchers refer to as the "crisis" stage. It is a period of "power deflation", of widespread doubts about top management's ability to cope with the situation. Dysfunctional behavior, cynicism, scapegoatism and opportunism will quickly set in if remedial actions are not taken.

In what follows, factors contributing to this situation will be discussed briefly:

### Incremental Diversification

The CNX study documented a misfit which grew out of gradual, unwitting diversification actions undertaken by CNR over the years when it replaced uneconomic railway lines with a trucking service.

Indeed, as shown in the historical account of CNX's genesis and evolution (Chap. 9), the division was started as a spin-off from the railway activities of CNR. More specifically, it evolved from what was initially a rail service between locations served by the railway to a trucking operation providing service to these same localities but at a much lower cost to CN.

Not intended nor seen as diversification into a new business, the trucking operation remained meshed in the CN Rail organization; for all intents and purposes, they were inseparable until 1976.

CNX's problems in trucking indicate that an obvious requirement for successful diversification is an awareness on the part of the corporate leadership that it is entering into new territories where their past experience and acquired skills may be of limited pertinence, if not woefully inadequate.

It is tempting to assume that what has made an organization successful in its present business will also work in another industry. This propensity is sometimes reinforced by emphasizing the similarities between the new and old business. This trap is particularly dangerous when, as was the case at CNX, a corporation moves into new fields incrementally, without an explicit strategy of diversification.

When formed suddenly (in 1976) as a semi-autonomous entity, CNX's cultural and socio-structural systems could only reflect those same influences that shaped the CN organization (linkages "g" and "h" as documented in chap. 7 and chap. 8). As a result, the trucking operation was totally infiltrated by the ways of thinking and doing which had proved useful in railway operations. The analysis of the trucking industry (chap. 6) has shown the very different character of that industry when compared to the rail industry (chap. 8).

The problem of CNX may be illustrated schematically as in Figure 12-3. CN, long and still (in 1976) dominated by its railway operations, had evolved as a system of relationships well adapted to its rail transportation context, but was certainly not designed in response to the particularities of the small-parcel and LTL market contexts.

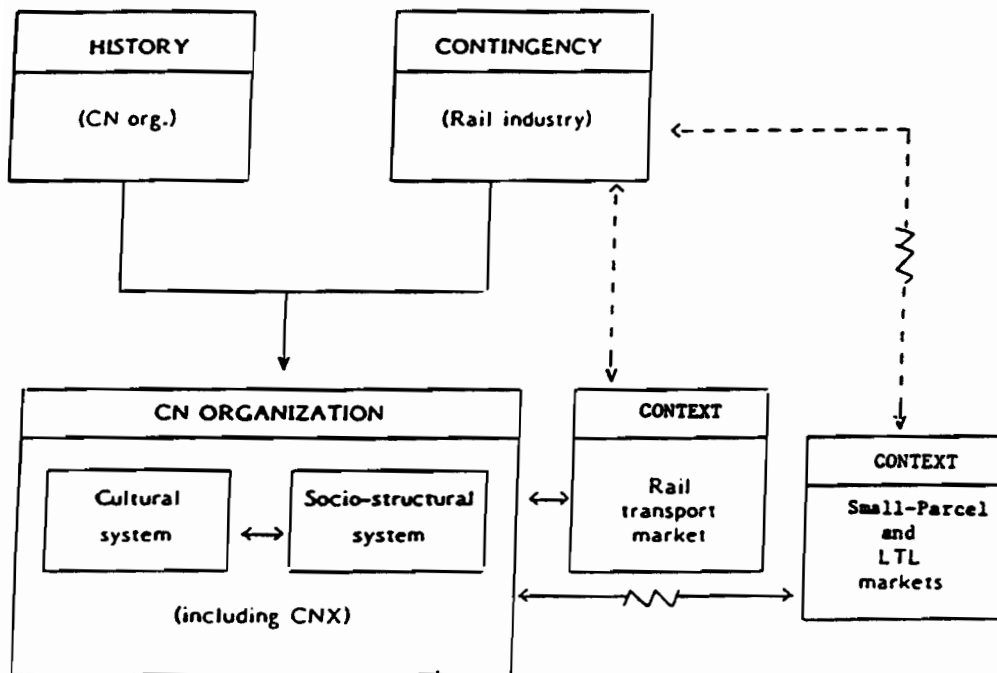
Market and industry contexts slowly work themselves into organizations as contingency factors [linkage (i)]. However, a unitary, functional-form organization can accommodate only one set of contingency factors; and this means that the dominant industry's characteristics will shape to a large extent the organization's structural and cultural properties.

The sudden shift to a multidivisional form in 1976 could not correct the situation overnight. It could, and did, highlight the extent of the problem and provide the basic structural set-up that would be required to adapt express operations to the demands of their specific market. However, problems are bound to arise when a division which is operating in a given market and industry is closely tied structurally and culturally to the rest of the organization which is dominated by the requirements of a different market and industry.

It appears from this evidence that what constitutes diversification (related or unrelated) must be defined in terms of the kind of values, ways and style of management that are necessary for

FIGURE 12-3

SYSTEM CONSONANCE AND DISSONANCE  
PRIOR TO 1976





success rather than exclusively in terms of general industry data and official statistical classification. Businesses which may appear to function in very similar industries may turn out to require different, even mutually exclusive, skills. Not only is trucking different from railway transportation, which is easy to grasp, but the small parcel business is quite different from the LTL business, which is a more subtle distinction and certainly one that is not reflected in any broad analysis of the industry.

Furthermore, the insulation of new businesses from the cultural and structural influences of the rest of the corporation (or of its dominant division) would appear to be essential. Rarely will the cultural and structural characteristics which are highly functional for a particular business prove also functional for a different business. That seems to be the first lesson to be learned from the study of CNX.

### The Mind Set

The events and actions during the period 1976-78 show how an organization's structure and culture imbued actors with a particular mind set and a world view that powerfully conditioned the definition and range of strategic options considered. The notion of a corporate mind set has been proposed to capture this phenomenon (Firsirotu, 1981; Allaire and Firsirotu, 1982), a notion which has found empirical support in studies done by Mintzberg and Waters (1982b) and in this thesis.

Indeed, the "railway" culture played in CNX's destiny a critical role that went beyond its contribution to the misfit between CNX and its markets. The railway culture structured management's cognitions and influenced the very definition of CNX's reality and of its strategic options. This is the most subtle and pernicious role of culture in any organization.

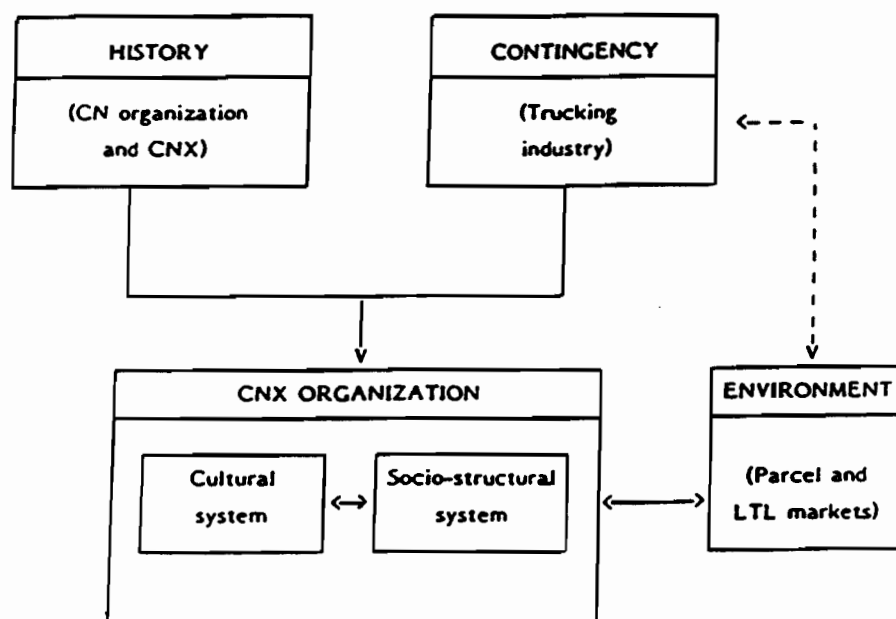
It was manifested in the sheer incapacity of the by-now autonomous management team to take whatever actions were necessary to fit the organization's strategies and operations to the exigencies of the parcel and LTL market environment. From 1976 on, the goal should have been clear: to achieve at CNX a state of consonance between the CNX organization and its market context, as exhibited in Figure 12-4.

The process of achieving such a result proved highly problematic. The pressing losses, revealed by the divisionalization, did lead to a frenetic search for solutions in the period between 1976-1978. Alas, this quest was to no-avail. As documented previously, this search for solutions was guided by a mind set that saw the problems of CNX as arising from operational inadequacies brought about in part by CN's legal obligations, rather than from a structural and value misfit between the organization and its market context.

This mind set led to a search for volume at all costs, for economies of scale through integration, to five-year plans and costing systems, to a tempo of actions which could be viewed as fast only in the context of a large regulated public utility. To break out of this strategic myopia is remarkably difficult without external assistance, without the contribution of new managers who can question taken-for-granted "facts" and assumptions. And, even then ...!

The CNX study points to an acute dilemma for organizations. The cohesiveness and skills required for the successful operation of an organization call for member socialization to common ways of thinking and for intensive training in required ways of doing. But these lead to a mind set that is functional as long as contexts are evolving in a continuous manner. Discontinuous times will require a capacity to question fundamental assumptions, to "step out" of the prevailing mind set about the whys and wherefores of the firm's predicament.

Ideally, organizations should develop leaders who are "meta-cultural" actors; that is, managers who are not (and avoid being)

FIGURE 12-4GOAL OF TURNAROUNDFROM 1976 ONWARD

structured by the dominant world-view and set of assumptions, but who are conscious of these powerful factors, aware of their origins and sensitive to their functional role in the organization.

### Stress Factor

In a period of crisis, the frustrating incapacity of finding adequate solutions and the organizational and personal threats that would ensue, may, in a vicious circle, raise the level of stress to a point where dysfunctional behavior and thinking set in. According to Nelson (1981) who draws on Hirschman's work (1970), the nature of the response to a crisis in an organization depends on the degree of adversity it is experiencing: "if adversity is severe<sup>1</sup>, constructive action will be rare and inappropriate responses may occur." (p. 33).

On the basis of his studies of several firms in crisis situation, Nelson (1981) observes:

"... The change from constructive action to irrational behavior is a common phenomenon. At some point, a person's cognitive functioning deteriorates. The individual's habits become rigid so that information is ignored and errors are increased. The individual becomes irritable and cannot profit from experience. The ability to recognize mistakes, particularly important during the effort to resolve a crisis, decreases. ... under continued stress, rigidity and destructive actions compound the individual's difficulties." (p.35).

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<sup>1</sup> "Severe adversity suggests a recognition that the firm is near insolvency and the triggering of bankruptcy is imminent." (Nelson, 1981, p. 33).

Although this thesis did not set out to find such phenomena, the empirical case of CNX offered some evidence that this was occurring and suggests that this factor should be considered in turnaround strategy or in any other stress-inducing strategic situation.

### **Integrated Schema**

Figure 12-5 collects the variables and factors which help to understand the pattern of actions during this phase, a phase which is best characterized as one of groping for operational solutions within the framework of assumptions supporting the past course of action.

### **12.3 STAGE II: Getting Things Right and Everyone on Board (July 1978 to October 1980)**

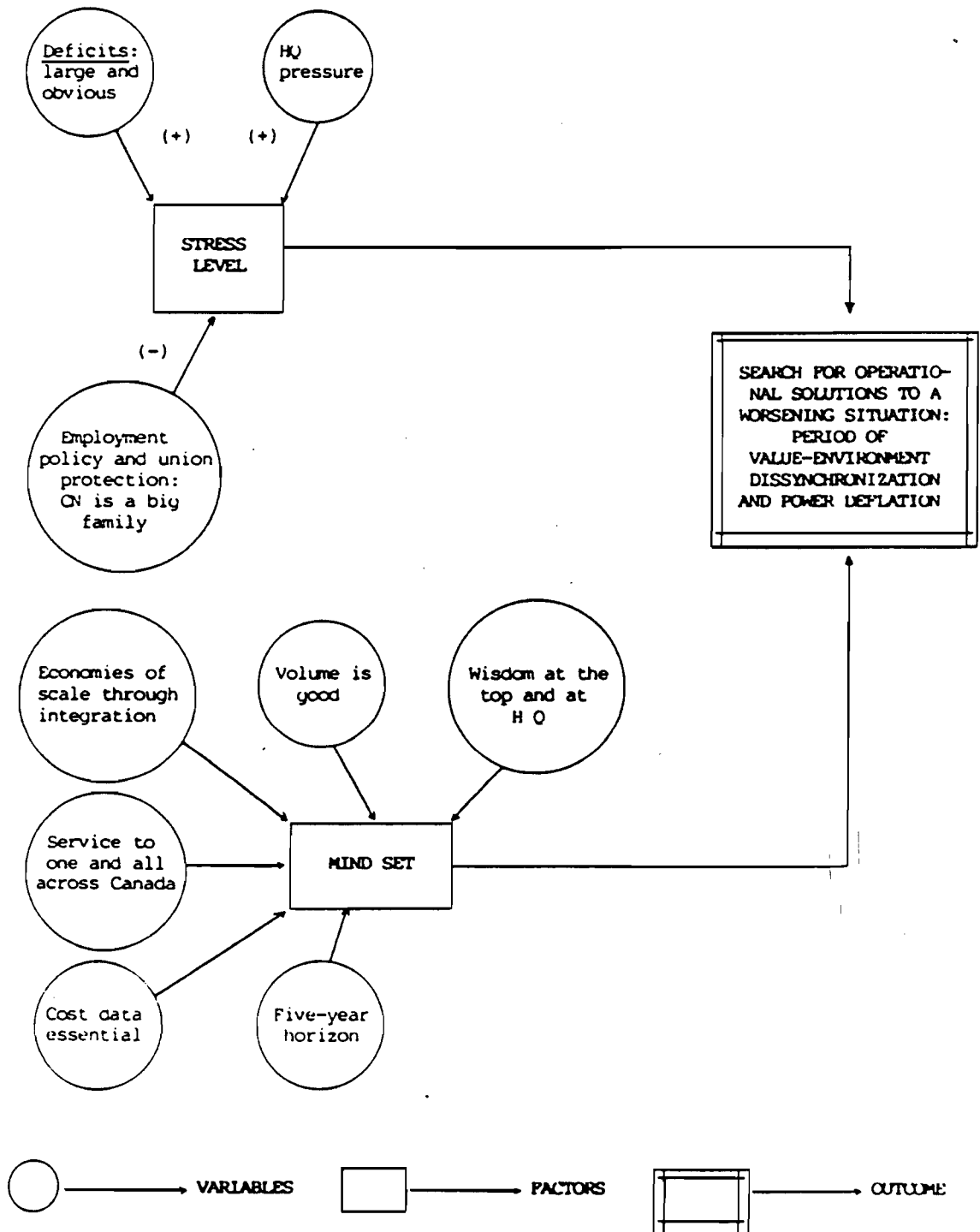
Figure 12-6 summarizes the main events and actions during this period. Claude Perron became the Vice-President, Marketing, in January 1978 and, in July of the same year, acting President when the incumbent President took early retirement. Perron would become full-fledged President of CNX in January 1979.

Perron faced a tough challenge. Turning CNX around was a "mission impossible" in the eyes of many at CN headquarters. Bandeen's preferred course of action was to simply close down the whole express operations:

"I discussed seriously the option of closing down CNX. But the legal people in CN thought it was not possible. The Government was also against. It meant laying off 5,000 people. I was for, because if you want to start a trucking business, better start it from scratch, not with \$34 million in deficit and people who have no background and experience in this line of business, and a CN rail mentality of "service to the population". (Interview, 20 June, 1983).

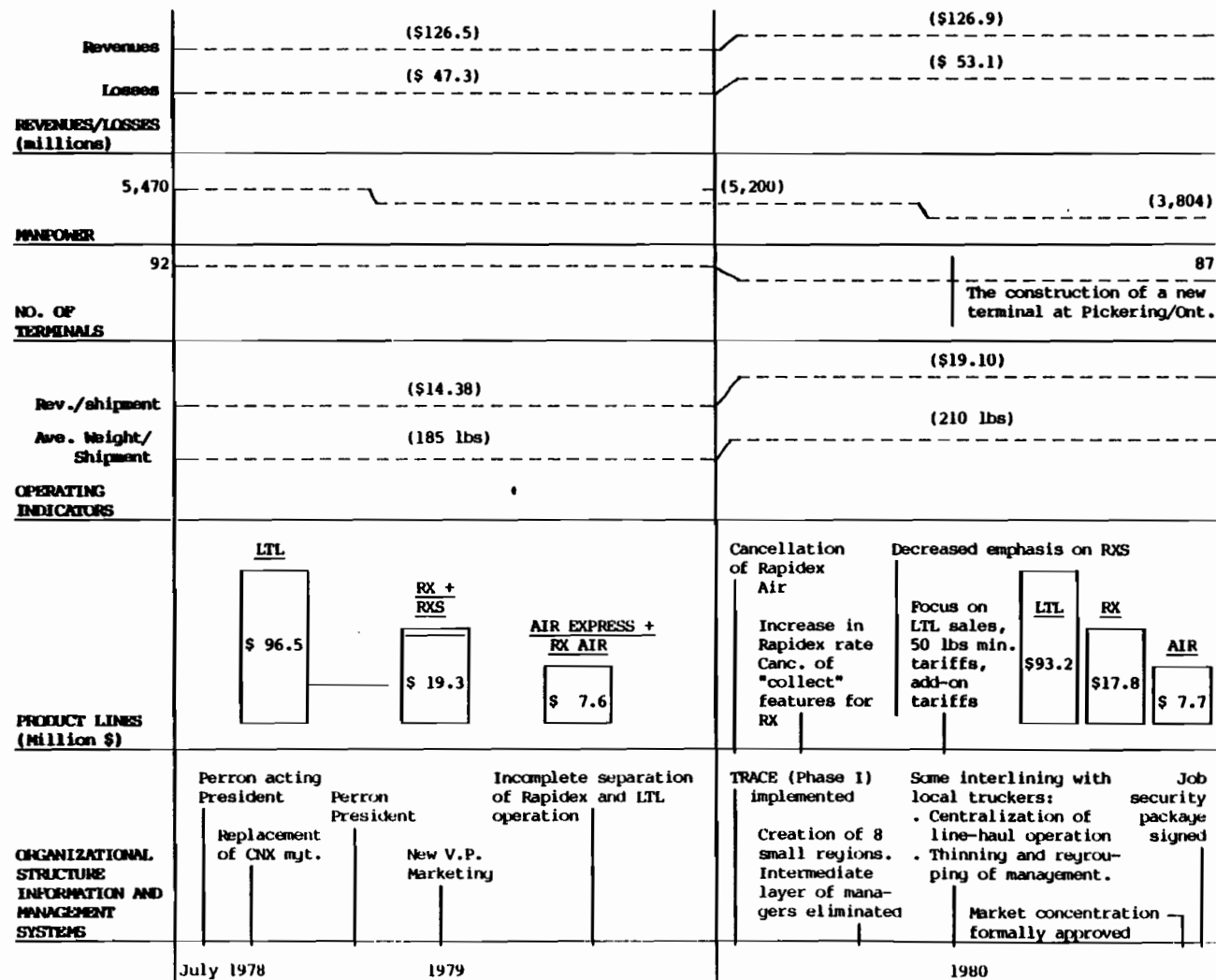
FIGURE 12-5

CONCEPTUAL INTERPRETATION OF CNX'S ACTIONS  
DURING THE PERIOD 1976-1978



**FIGURE 12-6**

**Key Indicators of Performance and Strategic Actions  
at CNX (1978-1980)**



Bandeen's calculus in bringing Perron in was to have someone take a fresh look at CNX's problems, someone who would shake and stir things up a little while he (Bandeen) was working on his preferred option.

Perron came on board with some assets and a few heavy handicaps. Very young by CN's standards (not yet 36 at the time he became acting President), Perron had no experience to speak of in the trucking or express business. He was an outsider, with privileged access to Bandeen, fine political instincts and a flexible, seemingly pliant, style of management (in an interview with the Financial Post, he would refer to his "Columbo" style, by analogy to the TV serial detective, with a bungling, slow-witted demeanor who nevertheless always outfoxed clever criminals).

In the CN culture, a leader must be forceful, provide directions, point the way, give orders. He can expect dutiful, if at times grudging, obedience in carrying out decisions. Disagreements will be voiced diplomatically and prudently. Opinions will be aired and considered, but eventually the leader must weigh the evidence and decide; then, everyone is expected to rally behind him.

Perron's style was very different, and the truth is that he had no magic solution to offer, no clear direction to propose. He therefore attempted to set-up new management processes and to manage the human side of the organization:

"I had no credibility at the beginning. I was buying time. Each time I was making a decision, I was evaluated. I looked at the history of Express and contacted old timers of Express at all levels, up to the middle management level. I met around 30 people. I wanted to be perceived as someone who understands tradition, culture, their efforts. Instead of criticizing, I wanted to understand their assumptions at the time of their actions. For example, the construction of the Toronto terminal, which was a mistake after the fact, it never really worked. Their assumptions at the time were, first, that the small business is going to grow and second, economies of scale. It never turned out



this way. Also, I wanted to appear sympathetic, that I cared about continuity on the human side.

I acted as a resource person, a person who concentrates on processes. I avoided giving opinions, but I provided the tools that helped managers to see by themselves what was right or wrong. I insisted on the discipline of meetings with prepared agendas. Thus the meetings became more productive." (Interview, 29 June, 1983).

This form of leadership (a resource person!) was at first, very disconcerting to his managers. He probed their minds, asked for opinions, created occasions to debate and discuss problems and possible solutions; but he did not offer his own solution, did not take sides, did not decide on any course of action. He was obviously hoping for a consensus to emerge around one best way, one preferred solution that could then be implemented at all possible speed. But Perron was quickly convinced that this would not happen with the present management team; he set out to replace most of them over the period September 1978 to July 1979.

### **12.3.1 A New Management Team**

In forming the new team, Perron made a crucial choice. Except for the marketing vice-president, he drew his new managers from CN's pool of managerial talent.

"I wanted people who could be innovative, intelligent, credible and from outside CN Express, but within the corporation, to bring new blood. People who were already there did not know the solutions to the problems. I needed people who could think through the whole design of the organization, and who have not been identified with old ways of doing things or the interests of one department or one region". (Interview, with Claude Perron 29 June 1983).

At first sight, to limit the recruitment of a new management team to CN's resources is a curious choice, if the foregoing arguments about culturally induced myopia at CNX have any validity. It becomes comprehensible, however, within the context of that time period. Perron had not, as yet, arrived at any clear diagnosis of CNX's ills; he was not aware that the roots of the problem may come from a wholesale transfer of assumptions and mind set from CN's rail environment to express operations. However, he was acutely concerned with his weak power base and credibility. He was convinced that the turn-around of CNX would require a broad base of support in the CN corporation. He argued that pulling together a team of outsiders to manage CNX would create resentment and hurt feelings in the rest of the corporation, and would erode his already thin base of support.

Perron set out to woo a number of CN corporate managers with deep roots and connections in the CN family, and a reputation for solid management.

However, when it came to the Marketing Vice-President (a position left vacant since he assumed the presidency), Perron decided to look outside of CN. As this was the last position to be filled for a while, he felt he could afford to recruit an outsider without paying too heavy a price in bruised susceptibilities. Convinced that marketing would have a key role to play in future actions and that CN did not produce an over-abundance of marketing talent, he hired an executive placement firm to look for candidates.

A forceful and articulate 38-year old engineer cum MBA, a product of the Xerox system where he was then manager of marketing for the Quebec region, was hired in June 1979 as Vice-President for marketing.

### 12.3.2 A New Spirit and Style

Concurrent with these events, Perron set out to impress upon CNX a new style of management. He adopted a participative, democratic but hard-driving style of leadership with his immediate subordinates. Upon becoming President, he recorded a video speech that was distributed to all terminals across Canada. He sought to make a few essential points:

"I wanted to convey to the employees who I am and what I stood for, and, also, that I was prepared to listen and learn. The message was also that a change in management style will take place, that the new style will facilitate a freer flow of information and communication between the employees and the management. I announced further that new thrusts will guide our decisions and actions in years to come. These thrusts<sup>2</sup> were: a closer relationship between the organization and the customer, a leaner organization, a decentralized structure of responsibilities and accountabilities and a higher accountability of head-quarter policies towards employees." (Interview with Claude Perron, 24 October 1983)

Perron then embarked on a cross-country series of "breakfasts with the President" through which he got to meet in early morning sessions, a good sample of employees from all levels and functions of CN Express. Comments made at these sessions were carefully recorded, and the minutes distributed to participants. Perron attempted to follow up on specific problems which could be quickly corrected. However, his main purpose was to establish contact, to become tangible to employees and to hear from their mouths their perception of the situation. The picture of CNX painted in these meetings was gloomy; field employees were vociferous in their indictment of headquarter's wisdom, policies and strategies. Amidst the usual litany of individual slights

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<sup>2</sup> These thrusts, it should be pointed out, reflect no new diagnosis and propose no new course of actions; in fact, they represent the conventional wisdom of the period, formulated in a modern management lexicon. However, the last thrust (headquarter's accountability) indicates Perron's growing awareness of (and political sensitivity to) the hostility towards headquarters among field employees for what they felt were poor policies and decisions by a weak management cut off from the realities of the market.

and pet beefs, operating personnel carried out a systematic questioning of CNX's approach to the market, and offered a point of view that was quite at odds with the view prevailing at CNX's headquarters, but that was not grasped very clearly at the time.

However, Perron's efforts at instilling a new spirit and style of management did produce a certain amount of goodwill and respect among unionized workers, but also planted the germs of serious problems for him at a later stage.

### 12.3.3 Support from the Union

CN's union, the Canadian Brotherhood of Railway Transport and General Workers, is a feared union with a long tradition of fighting for the rights of its members and of winning major concessions from management and government.

The union's belief system is a simple, functional one, anchored in the history of CNR: CN is a state-owned rail organization that was set up to serve the Canadian public interest; it should continue to carry out this noble mission, unaffected by narrow commercial considerations; express activities are part and parcel of CN's mission and responsibility to provide transportation services to the Canadian public; CN's attempts at diversification are derogations from its basic mission (in fact, union leaders continued, in most of their statements, to refer to the company as CNR; the change of name to CN with its symbolic connotations of a move away from a narrow rail organization, is given little recognition and no support); recent actions by Bandeen are highly suspect, smacking of intentions to privatize CN, a calamitous prospect to the union; finally, in the tradition of autocratic, hierarchical authority, relationships between the union's leadership and CN's management tend to be defensive and confrontational.

Typical statements from the union's leadership during the relevant period, read as follows:

"You are aware that for some time all of us have been concerned about the profit oriented policies of the present CN Corporate body", the national President of the Union, Don Nicholson states in a letter addressed to all CN locals. "Coupled with this", he continues, "has been a further concern that behind this is a motivation to return a source of great potential profit to the private sector of the economy. Equally, all of us have been aware of the great impact upon workers and the country resulting from a changed role which would result in the corporation becoming totally directed to maximizing profit to the detriment of public service. We will have to continue to be concerned and to speak out in support of a continuance of the historical responsibility of a government-owned railway, and it is my opinion our greatest problems may be ahead of us, not behind us". (Circular No. 111-NP-79, Nov. 1, 1979).

On the specific subject of CN Express, the union leadership wrote:

"The CNR is demonstrating once again, that concern for their employees and for the public interest, ranks low on their scale of priorities. A vital public service, Canadian National Express, is being scuttled as a dubious cost-saving measure. In February, Canadian National is paring down the express operation from 70 to 30 terminals, and the total work force from the current 4,600 (already down from 5,450 in 1979) to around 3,200 employees. These are only the cuts they have chosen to announce!! The object of this exercise, in our view, is to make the CNR suitable for "privatization", which CN President Robert Bandeen has confirmed many times in public speeches. Canadian National Express represents an ugly blemish on their beautiful body, which they are endeavouring to remove surgically. The question that must be posed here is this: "Why does CN management have the right to place the interest of the private sector ahead of the public interest? What is happening at CNX is but another chapter in a long history of making the workers pay for the profit oriented policies of big corporations like CNR". (I.D. CNR to dismantle Express Operations, January 15, 1980).

Here, however, Perron played a critical role. His open, unassuming management style was disconcerting and refreshing to the union's

leadership. Early on, he established contacts with union leaders, provoked "accidental" meetings with them, put his cards on the table, consulted with them:

"I arranged to meet by 'accident' the President of the union. I explained to him that I needed his cooperation as CNX was in a crisis situation and that there was a real possibility for CNX to be closed down. There were divergences at first, but we agreed eventually on developing a number of labor/management committees which would attempt to improve communications between the parties and work out a program to help the express operations. We had a number of precedents to establish a good relationship with the unions. First, from the very beginning, I have listened to the employees' complaints and tried to respond to them. Second, we have already cut a layer of managerial positions. Third, the solution itself came from the rank and file, from the way competitors were functioning. We had to specialize and they knew it". (Interview 24 October, 1983).

#### **12.3.4 A New Diagnosis!**

As the course of action adopted by the previous management had not produced good results, the new team had to chart a new course of action.

Perron's moves so far, though impeccably orthodox, would soon appear as merely cosmetic if they did not lead to a judicious strategy and course of action for CNX. Discussions of these issues are innumerable, at the risk of turning CNX's management into a "debating club".

In March 1979, the new management team (complete but for the Marketing Vice-President) was collected for a three-day strategy session on "Turning CNX around". Briefing books containing pertinent facts and data were prepared by consultants who acted as moderators and resource people during the session.

Again, a list of critical issues, or "challenge areas" in the consultants' lingo, were identified, numbered and clustered. However, it did not provide a systemic, dynamic view of CNX's problems. It did

not integrate various bits and pieces of information into a coherent picture; it led to piecemeal recommendations, some sensible, but of limited impact, some too vague to be immediately actionable (e.g. "transform CNX in harmony with its market").

The discussions continued, as Perron's days of grace were running short. He still had no course of his own to propose. He was still betting a solution would come out of his new management team's examination of the issues under his insistent probing.

His style of management, participative and consensual, which was useful, perhaps necessary at the beginning, was now boxing him in. If some avenue appeared promising to him, he had to sell it to his management team, persuade them of its desirability. Until he achieved that, no action could be taken as his management was now accustomed to, and expected decision making by consensus. When Perron concluded that a fruitful action might consist of buying outright a courier and small-parcel firm in Toronto and let it take over and manage the small-parcel operations of CNX, he was unable to convince his team:

"The management's response was negative. They said that before we do this, we should do it ourselves (that is, separate small parcels from LTL and run this operation as a quasi-independent business). I knew beforehand it would not work, but I went along only because my management wanted to do it." (Interview, 24 October, 1983)

In this relative absence of positive proposals, marketing, now headed by a forceful and opinionated individual, stepped in. The new Vice-President should have been a natural ally to Perron: same age, same educational background, also, an outsider to CN's culture and structure. It did not turn out this way<sup>3</sup>.

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<sup>3</sup> We can only conjecture as to why this occurred, as the individual concerned was not accessible to this researcher. It may be Xerox's particular socialization, the poor chemistry between him and Perron, the failure of Perron to impose himself and his views upon this forceful newcomer, or, shortly after his arrival, the presence of consultants dealing directly with Perron and giving him their opinions on marketing strategy. And, adding to all these circumstances was the possibility of dysfunctions induced by

Shortly after coming on board, the new vice-president adopted the position that had been taken until then (but with less effective advocacy) by the marketing people at CNX's headquarters:

- Marketing had managed to slow down the erosion of the LTL business.
- The marketing of the small-parcel products, Rapidex and Rapidex Special, was a clear success as evidenced by their rate of volume growth.
- The pricing structure of CNX was largely similar to that of competitors who managed to make money; however, a good deal of additional revenues could be obtained by tariff increases on specific traffic and routes for which CNX had a captive market.
- Therefore, the problem lay not with marketing, which was doing its job, but with operations which could not deliver the product that marketing was selling. The solution to CNX's problems would come from improvements in the dismal level of productivity and efficiency on the operations side of the business.

The marketing vice-president wrote in July 1979:

"Rapidex's growth has assured us the possibility of staying in the market over the longer term by allowing us to maintain market share. While our small business is not, under present operating cost characteristics, financially viable, it is certain that CN Express would have been and will be in a desperate situation without this business. We must stay in small for the foreseeable future, if we are to survive as a business. We must develop a short term action plan which would aim at improving our effectiveness in managing our present business, doing better of the same." (Strategy Planning Meeting, 25 July, 1979, p. 6, emphasis added).

Perron did not believe that this would work but he had no specific alternative to propose, no effective counter-argument to oppose it at that point. In early Fall 1979, the Marketing Department prepared the 1980 revenue budget on the basis of its assumptions and perceived solution. The proposed budget contained a large increase in revenues arising from broad tariff increases without any reduction in volume. Under these conditions, the budget forecasted a sharp reduction of CNX's deficit for 1980.



Perron disagreed sharply with this prognosis but marketing was adamant. Lacking staff resources to come up with an alternative, having failed to win the argument with marketing and cornered by his own democratic style of management, Perron reluctantly passed on these budget figures to corporate headquarters.

Perron's position was becoming untenable. He was pushed into a strategic option he did not believe in. He had put his signature on a budget he knew would quickly appear totally unrealistic, an action which might well exhaust the dwindling store of confidence in him at corporate headquarters.

To make matters worse, the corporate structure of CN had been changed. Since he had become President of CNX, Perron had been reporting directly to Bandeen who was taking a benevolent and episodic interest in his performance.

Now, CNX had been grouped with the other non-rail businesses of CN in a corporate entity, called CN Holdings. The President of CN Holdings was an intense and short-tempered officer who got quickly involved in, and impatient with, CNX's operations.

Pressured by CN Holdings to come up with solutions, pushed by his marketing people into a course of actions he disagreed with, Perron bit the bullet. In October 1979, he made a critical switch in his managerial approach to the problem. He announced to his management team that he was taking over the responsibility of coming up with a strategy and course of actions. To achieve this, he set up a task force chaired by himself and made up of his special assistant (a long-time express employee, a former regional manager, intimate with the details of CNX's operations) and two outside consultants (one of whom had been advising Perron off and on since he had come to CNX).

"I had no other choice", Perron said, "but to form a task force. There was no way I could work from within".  
(Interview 14 October, 1983)

The task force (or more precisely the consultants accompanied by Perron's special assistant) visited a number of terminals, interviewed managers in the field and at headquarters, probed the available data and evidence, tried to understand the assumptions underpinning CNX's actions, examined the strategies and modes of operations of competitors.

"I suppose we started on this assignment with the classic mind set of the efficiency expert, expecting to find gross inefficiencies, featherbedding, and fat to be trimmed. In some ways, our working hypothesis was similar to the marketing people's version: operating people were at fault; the productivity of operations had to be improved by chopping people off; there had to be a lot of unnecessary bodies out there. We soon found a different reality. I still remember our visit to the Quebec city terminal on a bitterly cold day in early January 1980. Workers had to load and unload trucks in unheated hangars where the temperature stood at a damp minus 25C. The terminal manager and the sales manager shared a secretary who also functioned as petty cash clerk. The office was old and decrepit . . . The potential for cost savings was small indeed! And then, there were those numbers: over 150,000 different clients in any given week, 90% of them providing total business of less than \$1,000 a year. No system can handle that at the kind of prices they were charging." (Interview with consultant to the task force, December 16, 1983).

By the middle of January 1980, the task force had completed its analysis and identified a set of strategic options for CNX, ranging from a quick exit from the express business to the marketing department's preferred course of action to a "market concentration" option (dropping out of the small-parcel business to become an efficient LTL trucking company over a shrunk core territory).

This latter option, strongly favored by the task force, was very controversial as it challenged some fundamental assumptions at work at CNX:

1. It called for the dropping of Rapidex which, in the eyes of the marketing people (and others), was both a success story and the life line that had kept CNX from going under;

2. It called for a substantial reduction in the direct coverage of the Canadian territory; under this option, many areas would be serviced by private truckers to which CNX would pass on (inter-line) shipments going to destinations beyond its core coverage; it was widely believed that CN had a legal obligation to provide its services directly to the Canadian population;
3. It would result in a work force reduction of some 2,000 people, stirring a vehement opposition from the labour union and, more politically potent, from the geographical regions most affected by the lay-offs.

The consultants presented their findings and recommendation first to the President of CN Holdings (and his staff) and then to CNX's management. The debate was sharp and increasingly acrimonious. At the end of January, a three-day session was convened, attended by headquarter executives, field people (regional managers, sales managers, some terminal managers), the consultants, and CN Holdings' staff. Within CNX, and particularly among the field managers, the "market concentration" strategy was rapidly gaining ground.

During this session, the Marketing Vice-President abruptly resigned and dispatched to the President of CN Holdings a bitter letter with a long document outlining his position:

"The marketing position adopted in the attached paper proposes the optimistic cost reduction and service improvement hypothesis. It is far more subjective than I would have liked. Unfortunately, the entire analytical resources of the Division are presently occupied trying to prove another thesis. If the position presented merits further interest, I strongly recommend that the major points made, be thoroughly analyzed before action is taken" ("CN Express's marketing strategy", letter of Vice-President, Marketing to the President of CN Holdings, 31 January, 1980)

This dramatic gesture and the tenacious opposition of the marketing people shook CN Holding management. The Rubicon, dropping out of small parcels, was not crossed; however, CNX's management got the go

ahead on all other measures (including interlining and the closing down of terminals) about which a broader consensus had emerged.

The constructive dialogue with the union initiated by Perron started yielding its fruits. Although, the reduction in size and visibility of CNX implied huge reductions in personnel, the union turned very cooperative. Indeed in April 1980, a circular was issued to all CNX union members, stating the leadership's intentions to participate in the turning around of CNX, which would involve them in a harsh rationalization program.

While Perron and his management team set out in the Spring of 1980 to implement a vast restructuring of CNX's operations, CN's corporate headquarters pursued their efforts to get the shareholder's concurrence to the closing down of express operations. Bandeen obtained the approval of CN's board for a "quick out" option and initiated discussions with federal officials. It is uncertain whether these moves expressed a genuine belief that the closing down of CNX was a politically saleable option at the time; or, were they a shrewd gambit to make the "market concentration" option with its considerable shrinkage of workforce and coverage more palatable to federal government officials (including the Canadian Transport Commission), the union, and provincial governments?

However, CN headquarters' pursuit of the exit option during the late Spring and Summer of 1980, came to the attention of the union. It created a good deal of confusion and bitterness.

"My information now indicates" the President of the Brotherhood writes to Perron, "a change has occurred and that those we represent have become and are becoming more apprehensive and restless concerning their economic welfare and their employment security... We feel there is a need for all those affected to be advised of the realities of the future and it is my view that these cannot be known and identified unless there is a clearly enunciated decision made by the corporate CN authorities". (Letter to Claude Perron, September 12, 1980).

Remarkably, Perron retained the confidence and trust of the union's leadership even during that period. Writing to New Democratic Party leader Ed Broadbent to enlist his support against CN's suspected intention of closing down the express operations, union officials wrote:

"He (Perron) has visited all the terminals, listening to complaints of the rank and file and trying to sort out the mess that has existed for years between CN Management and their employees. Changes are announced and formulated and he does keep his promise to keep in touch with the workers and involve them in any changes that would affect the Express Operation. We believe that Mr. Perron is trying to deal with us in a mature and honorable way but that the Corporate Dictators and the liberal hacks make it impossible to do so". (Letter from CBRT & GW local 34 to Ed Broadbent, August 25, 1980 p. 4).

Perron had to navigate in treacherous waters for a while, until the market concentration strategy was finally approved by CN's board in October 1980.

Indeed, federal officials proved to be less than enthusiastic about the option of closure and asked CN to come up with alternatives; they quickly indicated much interest for the market concentration strategy. At CN's board meeting of October 1980, the market concentration strategy, including the withdrawal from the small-parcels business by dropping the Rapidex line of products, was formally approved. Immediately after, the managers of CNX undertook the tricky task of charting and carrying out this course of actions.

At that point, intense and feverish negotiations between the union and management began, culminating in the signing on November 14, 1980 of "one of the most comprehensive job security packages".

### 12.3.5 Conceptual Interpretation

#### Emergency actions

At first, Perron may be seen to engage in emergency life-support actions, a critical period during which he attempts to gain precious time and support from CN Headquarters and to change the feeling of drift and futility in the organization.

As a division of a Crown corporation, CNX's continued existence did not directly depend on market decisions but was a function of corporate headquarters' whims and the government's mood. Having brought in an outsider to the organization indicated a willingness to bear with CNX for some period of time. However, Perron knew that survival and the time of grace required to carry out any fundamental change program would come from headquarters (and from headquarters' perception that outright closure of CNX would not be acceptable to CN's shareholder). His emergency life-support actions consisted, logically enough, of cultivating CN's chief executive to obtain from him some time to manoeuvre, and some support in establishing the credibility of CNX's viability in one form or another.

Rather quickly after assuming the presidency, he replaced CNX's cadre of top managers by ambitious people who could be motivated by their desire for success and promotion and by the impact on their career of failure or sub-par performance. He started therefore with changes in the organizational structure. CNX's study on this count supports similar findings in the literature on turnarounds. Indeed, Schendell, Patton and Riggs (1976) report that 80% of the cases of turnaround studied started with the replacement of the old management team.

Perron also decided to introduce a new management style at CNX. He did not know at that time whether this would be productive or counterproductive under CNX's circumstances. He was testing the water.

Indeed he set out to convey the message that a new team was in charge, that a new management style was intended, that he would listen and be accountable to the employees and act in the interest of all. His extensive program of visits to all parts of the company, the videospeeches addressed to employees as well as the constructive dialogue, the "hot line" established with the union's leaders, helped in establishing a sense of purpose, determination and support, a renewed will to cope with the problems of CNX.

These actions also raised the level of awareness about the crisis situation of CNX; it led to a higher degree of tension and insecurity among managerial people (in particular), and to the mellowing down of the union's sharp attacks.

### The formulation of a new code

Then, Perron embarked on the revolutionary phase of the turnaround. The year 1980 was marked by a flurry of activities which may be subsumed under what is called in Johnson-Wallace's theory of revolution the "formulation of a new code" or what the Swedish scholarship on discontinuous change has labeled the "formulation of a new myth".

The pernicious role played by CN's cultural and structural seepage into CNX was not clear to Perron for a good while. He brought in more CN people to manage CNX. He carried on in his role of chief executive in an authoritarian organization with the style and approaches he had learned, and found useful, in very different contexts. He soon found himself boxed in on all sides, his position as president of the division, shaky and threatened. It was definitely a period of trial and error.

In extremis, he shifted to a take-charge attitude and brought in consultants with a broad but urgent mandate. The composition of the task force was critical: two consultants and a long-tenured CNX manager (a prototypical product of CN's cultural and structural influen-

ces). This arrangement, and the give and take of opinions within the task force, led to a document that was sensitive to both the internal and external realities of CNX.

Perron then had in hands a charter for action, a document which contained a compelling explanation for CNX's misfortunes and a credible worked out strategy for them. Among the options discussed in the task force report, only one was strongly favored as a viable alternative: market concentration.

For Perron, it was as if a new mind set was created; the task force's report gave form and substance to a whole reconceptualization of the firm's market positioning, its ways of thinking and doing. The strategy formation process identified at CNX parallels a similar pattern reported by Mintzberg and Waters (1982b) in their study of the Canadian Lady Corporation. Indeed, as in that case, Perron went through a period of preparation (informing himself), followed by incubation, to one of illumination. Furthermore, the formulation of a "new code" at CNX supports similar findings in the literature on strategic turnarounds. Whether it is called "a new strategic orientation" (Schendel, Patton, Riggs, 1976), "a new business concept" (Wyckoff, 1976), "a new concept" (Biteman 1979), "a new myth" (Hedberg and Jönsson, 1977), a similar phase has been observed in almost all cases of strategic turnaround. At this stage, new cognitive structures seem to emerge in the leadership. The articulation of an alternative theory of action leads to the advocacy of a fundamental cognitive reorientation in all other organizational members. Wallace (1970) describes this process as "mazeway resynthesis" or "hysterical conversion".

A manager typically recollected:

"In 1979-80, a total zero-base management review was made; questions were asked: What are the impediments for making money? Every facet of the operation was studied.



It became obvious that the costs of operating a heavy weight piece were higher than for a small parcel. But the revenues for each were different. Even if we had handled a double amount of Rapidex, we would have lost money. We separated Rapidex from LTL, but we realized that with the same operating organization and system we could not handle separate lines under the same roof. Consultants were invited. They saw things differently. They offered options to look at. Those who are successful have a specialized approach, they said. They are not everything for everybody. They become extremely efficient at what they do. They become lean and the management team is totally entrepreneurial. Perceptions and decisions are molding. A think tank is created. People are brought together (retired senior managers, low terminal managers, present headquarters managers). In a large room, for 3-4 days we tried to sort out the best scenario out of several ones. The idea of revolution in our raison d'être came. We have to concentrate on LTL. We were a national carrier, we have to try to be a national trucker. We understood that the money is where the weight is. There were people who thought that going out of Rapidex was wrong. They were an absolute minority". (Interview, 3 December, 1983).

### Power game

However, for this new myth, code or strategy to take hold and be sanctioned, there had to be, in CNX's case, a convergence of interests among various groups of power holders. It is because (and when) union leaders, CN headquarters, CNX's management, and the federal government as shareholder and as regulator (CTC) saw the market concentration strategy as the "saddle-point" of their power game, a sort of "minimax" decision for all concerned, that it received their reluctant blessing and support. In this particular instance, an "optimal" strategy (in the eyes of CNX's leadership) based on a reading of market contexts and internal capabilities turned out to be an acceptable compromise for all parties concerned. But it could have been otherwise. An inferior market strategy or a protracted period of indecision might have been imposed on the firm by the conflicting interests of power-holders. This is a risk incurred by all organizations subjected to considerable political dependency and weak market control.

Furthermore, it is instructive, and probably of general applicability, that CNX finally had an explicit, public and, in the eyes of management, appropriate market strategy only when there was a coincidence between the requirements of CNX's external contexts and the interests of its various power-holders.

It would seem logical therefore that the more numerous the stake-holders and/or the more equal in power, the more difficult (and rare) it would be to achieve such a coincidence. In its absence, the organization's strategy will tend to be implicit and tacit; then, the firm's strategic actions will be determined more by the search for viable compromises than by optimal adjustment to its market contexts.

Figure 12-7 attempts to schematize the flow of events during that period.

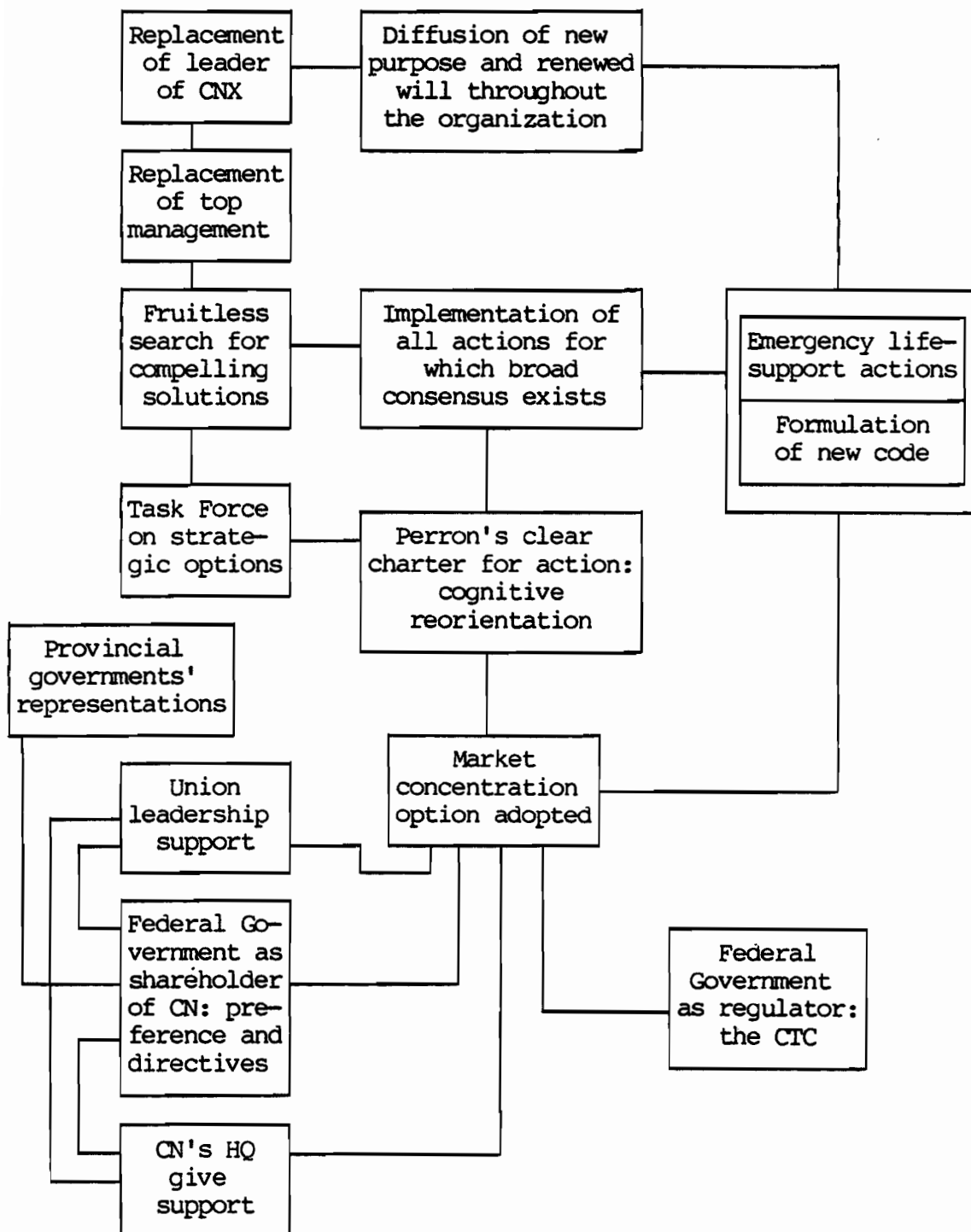
#### **12.4 STAGE III: Implementing a Radical Strategy (1980-1982)**

Figure 12-8 offers a synopsis of major events during the period 1981-1982. However Perron did not wait for corporate headquarters' final go-ahead in October 1980 to begin implementing the market concentration strategy. He chose to interpret the conclusions of the January meeting in the broadest possible terms; he considered Armstrong's mitigated concurrence as a "yellow light" to proceed with this new strategy.

##### **Pre-emptive implementation**

Perron was convinced that the market concentration strategy, as formulated by the task force, was the right direction, both from an analytical and political perspective. He believed it highly improbable that federal officials would agree to a closing down of express operations. Confident as to the outcome of these negotiations, he proceeded in February 1980 with the planning and implementation of market concentration.

FIGURE 12-7

CONCEPTUAL INTERPRETATION OF EVENTS AT CNX (1979-1980)

**FIGURE 12-8**

**Key Indicators of Performance and Strategic Actions**  
**at CNX (1981-1982)**

<b>Revenues</b>	(\$105.7)				(\$94.1)			
<b>Losses</b>	(\$39.9)				(\$29.8)			
<b>REVENUES/LOSSES (millions)</b>								
	(3.804)				(2.532)			
<b>MANPOWER</b>								
	(87)				(57)			
<b>NO. OF TERMINALS</b>								
	(31)				(31)			
<b>Rev./shipment</b>	(\$36.57)				(\$47.38)			
<b>Ave. Weight/ Shipment</b>	(232 lbs)				(321 lbs)			
<b>OPERATING INDICATORS</b>								
<b>PRODUCT LINES (million \$)</b>	Withdrawal of Rapidex				Withdrawal of Air Express			
		LTL (\$88.2)	Air Express \$8.6			LTL (\$94.1)		
<b>ORGANIZATIONAL STRUCTURE INFORMATION AND MANAGEMENT SYSTEMS</b>	Closure at 23 terminals and interlining				Closure of 26 terminals			
	Installation of a new management control System				Comparison with US successful truckers			
	Centralization at HQ of automatic equip. and accounting				Initiation of loss and damage programmes			
	Development of general performance and standards for comparison				Further interlining			
	Completion Trace				Completion of the implementation of the terminal based operation system			
	1981				(1982)			

Of course, he could not pull CNX right out of small parcels as this step had not been approved; nor could he actually close down terminals until some global agreement had been reached with the union. But, he could, and did, take all steps and measures in the direction of market concentration and in preparation for its full implementation when and if approved.

In April 1980, in a joint press release with the union's president, he announced major changes in CNX's structure and strategy. The focus of CNX's operations will shift to terminal manager, who will be supported by eight regional managers (up from four at that time). CNX will concentrate its selling efforts more and more on heavier shipments. CNX's territorial coverage will be reduced. These were the opening skirmishes of a cultural revolution at CNX.

Whether Perron was fully aware and conscious of this fact, is a moot point. He now had a "charter for action" he believed in. The report of the task force had spelled out and provided him with a compelling explanation of CNX's misfortunes to which he rallied a large part of his management team. The departure of the marketing vice-president had muted the opposition to this course of action.

The task force's report also sketched out the type of organization required to carry out this strategy. It stressed the need for a separation, structural and mental, between CNX and its rail antecedents and linkages. It defined the key operating characteristics and values of successful trucking firms.

Perron's particular talents and affinities were well suited to implementation. He is a man of action, not of cogitation; he is goal-driven and achievement-oriented; he takes little pleasure in, and has little patience with ratiocinations about goals and strategies. Supplied with a blueprint, Perron could now focus his energies on making it happen.

The decentralized management style and philosophy required for a new organization-environment linkage at CNX, came naturally to Perron. "He has a team-work style, and he was careful to build a capable team", an executive states (Interview, 28 January 1983). "There is a new atmosphere installed by Perron, a team effort, search for ideas, new ideas are quickly approved", comments another officer. (Interview January 14, 1983).

### Communication

The management of CNX was put on high gear, pushed on a fast-paced course of changes.

The new formal strategy (market concentration) and its main requirements (terminal-based management, concentration on heavy-weight shipments, selection of clients, reduction of geographical coverage) were communicated at saturation level throughout the organization.

The union's leadership issued circulars to its members explaining, and expressing support for, the new strategic orientation of CNX. Advertising materials and contents were changed to reflect the new direction and their targeted audience were not only potential customers but CNX's employees across Canada; CNX's logo and colors were changed; CNX set up its own internal journal to communicate more effectively with employees; up to that time, news about CNX were included in CN's journal (which bears a revealing name: **"Keeping Track"**); again this was a move to insulate the division from CN Rail's influences; it also increased management's ability to deal with rumors and disseminate favourable information.

Given the sizeable shrinkage of managerial ranks, Perron could not recruit too many outsiders to reinforce the new style and orientation. However, he used the few available occasions to hire or select people who could act as change agents in the ranks of middle management.

## Climate

Furthermore, Perron strived to install at CNX a climate of experimentation, propitious to fast and energetic actions.

After 1979, a manager stated: CN Express became very much problem-solving oriented, action oriented. If you have a solution you think is reasonable, go ahead and do it. (Interview, January 27, 1983).

Evidence that the CNX's management style was challenging the old ways is offered, albeit from a rather critical perspective, by a former Express marketing manager who left CNX in disagreement with the new strategy:

"CNX is more volatile now, more experimenting-oriented, not as conservative as CN. This can be explained by the difficult financial situation of CNX, which requires new big solutions to ameliorate the situation. No monitoring system, jumping quickly to new projects, if the one at work did not provide quick results. Small emphasis on knowing well the operation, emphasis on finding new solutions, a big break-through. No emphasis on sweat, hard fought battles within the old path; emphasis on quick easy answers, no incremental work". (Interview, January 13, 1983).

But this is what the situation required. The new management style yielded its fruits. Indeed, yesterday's unthinkable structural changes were now taking place without any disruption.

In 1980, we held regular monthly discussions with employees. A problem-solving climate was created. We were taking suggestions from the employees. The whole concept of change was dealt with the entire company. We conveyed to people that "the money is where the weight is" and that we should no longer be everything to everybody. In 1981, the crunch came. Rapidex was eliminated, terminals reduced to 30, 1,800 jobs eliminated. Nobody was against: no strikes, no drops in productivity. (Interview, December 3, 1982).

### Goal culture and structure

The task of changing CNX's "raison d'être" was not an easy one. It implied structural and cultural transformations for which no ready-made recipes existed.

The job was to reorient and to compete in a different business", an Express Officer said. "Old attitudes had to be changed, the decision making process had to be shortened. Get the people accustomed to do new things, for which no established ways existed. A new approach is required, a more responsive one. The competition in trucking is different from the rail - more competitors, a very fragmented market. Competitors are not sophisticated in their management style. Truckers are after short-term games. They are survivors, geared to getting in and out of business. (Interview 14/1/1983).

Indeed, terminal managers had to learn to manage their operations with autonomy, as a profit and market oriented business. Terminal managers had to understand their role as businessmen in the trucking industry, and be allowed to act in accordance with that capacity.

The roles of CNX's headquarters and regional management had to be transformed. "The terminal manager must become a local businessman with authority and accountability commensurate with his role; he must have the profile of an aggressive market-oriented and cost-conscious business operator. His experience, motivation and remuneration must reflect these requirements and expectations."

CNX's culture had to be changed to what the task force described as a "trucking culture with its particular set of values and ways of doing things, a no-nonsense, bottom-line oriented management with little tolerance for bureaucratic games and formalizations".

Perron made major structural changes. He broke up the four powerful regions, a residue of rail operations. He set up eight regional managers to act as coordinators and facilitators for the major overhaul



of express operations. However, he did not go along with the consultants' recommendation to drop the title of regional manager and replace it with the symbolically potent title of "market area coordinator". He believed such a change of lexicon was too abrupt and would create confusion and resistance among his managers.

As a regional manager in the new CNX organization put it:

"The successful trucker sells the back haul first. He does not operate as a common carrier; he selects his customers. Get the terminal manager to understand it, in other words, what profitability means in the trucking business. It is a mental thing. You have to understand it. One problem we had at CNX before was that we did not get it through our heads". (Interview, 20 June, 1983, emphasis added).

### Managerial shrinkage

Another change of structural and symbolic significance was the elimination of a number of managerial positions at the regional level and a redefinition of the regional manager's job. "At the regional level, an executive stated, "we removed a lot of people to give the terminal manager the feeling that he was becoming important". (November 4, 1983).

### Sales efforts

The new market strategy was also supported by incentive programs for new traffic over 400 lbs, by retraining salesmen, redirecting their sales efforts and placing them under the authority of terminal managers, by "priority customer programs" for selected shippers, etc.

### Symbolic actions

The customers' perception of CNX had to be changed as well. CNX had to change its image of a general carrier related to rail to that of

an efficient, national, modern, LTL trucking firm. To this end, CNX was dissociated from CN rail. The colour on its trucks and publicity materials were changed from orange (CN rail) to yellow and grey; its customers were informed, almost lectured, on the new "raison d'être" of CNX. The availability of state-of-the-art computer systems to provide customers with better service was emphasized.

We were perceived by the public as a Post office for bigger parcels. The biggest problem was to change people's perception. Clients perceived us also as a rail company. Our average shipment two years ago was 120 lbs, now it is 400 lbs. We are now in LTL. To change perception, we set up a customer program inviting potential customers to our company. We presented slides to them, informing them about the kind of operation we are in, the equipment we used. The computer system we had, which could trace traffic all along the route and help thus the traffic to get to the destination in time. We prepared a brochure to show the type of business we handle, that is LTL. We've got new business". (Interview, January 4, 1983).

The new slogan for CNX was: "CNX: The Heavyweight Champion". Punchy advertising themes synthesized the new profile of the division: "XTRAS - The computer system that makes CNX unbeatable". "CNX gives you a whole lot more with XTRAS, the most advanced computer system in trucking today". "The brains behind the Heavyweight".

To provide concrete and vivid symbols of what CNX should aim for, Perron identified high performing American companies (e.g. Consolidated Freightways, Ryder, etc.) and arranged for fifteen of his managers to spend some time in these companies to study their operations and management. These companies, CF and Ryder in particular, became the embodiments of a goal culture and structure for CNX. (See Table 12-1).

"The trips to the USA", an Express officer commented "have shown us that a successful trucking company is characterized by local management measurement, that is, the results are measured locally at the terminal level. Bonuses are given to terminal managers. Authority is delegated to the terminal level. Highly mechanized paper system, lean organization, hardly any clerical

TABLE 12-1  
Goal Culture and Structure  
as inferred from successful American  
trucking firms

- 1° A decentralized terminal-based organization.
- 2° Each terminal is a profit center.
- 3° Sales and operation reports to the terminal manager.
- 4° Live or die by the operating ratio.
- 5° Selective selling.
- 6° Very entrepreneurial management.
- 7° Very quick response.
- 8° Very tight control system.
- 9° Incentive base.
- 10° Very few layers of management.
- 11° Free flow of information.
- 12° Focus on service first (reliability and speed).
- 13° Flexibility in manning.
- 14° Flexible and articulate short term planning.

Source: Perron, C., "Leadership and the Management of Change: the CN Express Case", Niagara Institute, June 19, 1984.

jobs. It showed that what we have to aim at is locally based management". (Interview, January 14, 1983).

To tighten this structural and symbolic association, Perron had bought and now made operational Consolidated Freightways' computer system for operations monitoring and control. The installation of this system in CNX terminals was a constant reminder of, and a stimulus to match, the discipline and tight monitoring that makes for success in these organizations. The symbolic importance of these American role models was such that when CNX's management wished to assess their progress and the distance still to go, they twice carried out an extensive comparison of their operating characteristics with those of successful American trucking firms.

From March 1981, the pace of implementation was quickened. Rapidex was dropped, numerous terminals were closed and the responsibility and accountability of terminal managers were increased.

These structural changes, in addition to their substantive purpose, constitute strong symbolic signals conveying in tangible form the new orientation of the Division:

The closing of terminals and the dropping of Rapidex drew people's attention to changes" an Express Officer said; "it was an important signal that the ways of doing things changing. The new objective was: look at the bottom line, that is the net loss of the Division. A bottom line orientation is installed with the objective of reducing losses. There is now a doer attitude at CNX. (Interview January 14, 1983).

#### 12.4.1 Conceptual Interpretation

This period may be conceptually divided into two stages: a stage of communication of the new code (Johnson-Wallace) or of managing ideology (Hedberg and Jönsson, 1977) and a stage of cultural transformation (Johnson-Wallace). In the former, the new strategic orientation was

presented to CNX employees as a solution to the crisis. The aim was to instill in members the optimism and an experimental attitude required to overcome the crisis. In the latter, the notion of "cultural revolution" gains all its significance.

Indeed, the aim of radical strategy, is to bring about required major changes in goals and strategies, in organizational structures and management systems. The challenge is to bring about the changes in culture and individual mind sets required to support and reinforce the changes in strategic orientation. If this is not achieved, structural changes will be ineffective, cosmetic or, even, counter productive. "Cultural transformation" implies precisely these two processes: the attempt at transforming present culture and structure into the goal culture and structure defined by the new code.

### An emerging "transfer culture"

Perron's actions during this period may be described as an overt attempt to implement a "transfer culture", to use Johnson (1966)'s terminology; that is, a system of operations which, if fully carried out, will transform the existing culture into the goal culture (Johnson 1966). An important issue however is whether Perron had at the time a clear cut transformation program, a strategy to implement the new strategy (a "meta-strategy"), an explicit "transfer culture".

A close reading of the events of that period and long discussions with CNX's President would seem to indicate that he pursued a somewhat haphazard, emergent, "meta-strategy" which, in the main, was well served by his instincts.

Of course, he had experienced by then a "mazeway resynthesis" (Wallace, 1970); that is, he had a broad concept of the organization's desirable external strategy, of the structural design and operating systems required to carry it out, and of the kind of culture (values, assumptions, ways of thinking) that was essential to support the new

strategic orientation. In other words, Perron knew what "goal culture and structure" were suitable for CNX, what was required by the evolving technology, regulations, economics and competition in the trucking industry.

However, he did not have a worked out concept of how to go about achieving this, that is, a "meta-strategy"; nor did he make a conceptual distinction between structural changes and cultural ones.

However, as a matter of fact and in retrospective, Perron's actions did address, and aim at, both CNX's structure and culture in a rather coordinated sequence. (Table 12-2)

At the socio-structural level (strategy, goals, organizational structure and management systems), he changed the product line (elimination of Rapidex and concentration on LTL), transformed the operating system and decentralized the organizational structure. These actions, structural in nature, also had a strong symbolic significance and assisted in changing CNX's culture. For instance, increasing the number of regional managers and changing their role in line with the new structural design helped break away structurally and mentally, from CN Rail's organizational set-up.

At the cultural level, Perron attempted (intuitively) to synchronize the changes in strategy and structure with symbolic actions that were aimed at restructuring the mind sets of management and employees. He formulated an image, a new myth, which captured the external strategy and goal culture to be implemented and communicated it forcefully throughout the organization. He gave substance and concreteness to this goal culture and structure by identifying successful American trucking firms as role models for CNX. These companies became symbols of what CNX had to become; all key managers spent some time on site observing the management and operations of these companies; eventually the names "Ryder" or "CF" became highly charged, acquired a mythical

TABLE 12-2IMPLEMENTATION ACTIONS

	<u>Cultural Level</u>	<u>Socio- Structural Level</u>
. Use of outside consultants		X
. Formal explicit strategy		X
. Choice of model organization (US firms)	X	
. Major reorganization (8 regions etc.)		X
. Accelerated implementation of Trace system and Monitoring System	X	X
. Tight monitoring of progress		X
. Implementation teams		X
. Revise selection, reward system	X	X
. Training and education	X	X
. Creation of new symbols	X	
. Addition of change agents at middle management level	X	
. Communication programs	X	
. Management Style of CEO	X	
. Labor/management committee for implementation		X

quality as the Goal to which CNX should aspire and against which it should be measured;

Recruitment, selection and promotion of management personnel were influenced by the new goal culture and structure; every opportunity was availed of to place in key positions people favourable to the new orientation and capable of carrying it out; however, this was done on an ad hoc basis with little systematic planning. The possibility of hiring outsiders was severely curtailed by the circumstances; having to cut so many management positions, CNX more or less had to select among available managers in filling the remaining positions (the left over managers either took early retirement or had to be integrated into other CN divisions).

All salesmen were re-trained in the business of selling LTL products; otherwise, training programs as a means of individual conversion played a very minor role in CNX's turnaround.

Perron also intuitively adopted a rate of change which was fast but not such as to overwhelm members and totally dissynchronize the cultural and socio-structural systems of the organization; a good example of his sensitivity to this issue is provided by his decision not to adopt the task force's recommendation to call the new regional managers "market areas coordinators". The consultants argued that this title would provide symbolic reinforcement for the changed structural role of these managers, and move CNX further away from CN Rail's terminology. However, Perron felt that to introduce a new management lexicon at a time when so many other changes were going on would have been counter-productive.

However there was a problem with Perron's attempt at "cultural transformation": no clear determination was ever made as to what was CNX's present culture and as to where it came from. As mentioned in one of the interviews with him, Perron early on wanted to understand the history of the division as well as the assumptions underpinning



various actions taken in the past. Unfortunately, this quest was never very systematic and his knowledge of the cultural assumptions at CNX, when he took over, was very tenuous. So was his understanding of the sources, role and pervasiveness of the frames of mind extant in the organization before the intended turnaround. Therefore, the proposed goal culture, though well adapted to CNX's external environment, did not establish what had to be changed and how it was to be changed. The proposed strategy contained no explicit linkages between goal culture and present culture on which to build a transformation program, no awareness of the underlying sources and factors which had shaped CNX's culture.

For instance, had he clearly grasped that the search for volume and for economies of scale through integration was a deeply ingrained CN rail assumption, he could have attacked it directly or tried to reshape and reformulate it in the context of the trucking industry; that is, volume is highly desirable given selected shipper and shipment characteristics.

Changing a culture does not mean a "tabula rasa" of present values and the wholesale arrival of a new set of values. In fact, to all extent possible, the goal culture should preserve, emphasize, build upon, aspects of present culture that are positive and compatible. The present culture may exhibit inherent contradictions in value and assumptions. Culture change may often result simply from novel reconciliations of these contradictions; culture change may also emerge from a downgrading of some assumptions and values, and the increased emphasis on others within the set of presently coexisting values and assumptions. The history of CN, if not of CNX, shows many shifts in dominant values and outlook which resulted from new reconciliations of conflicting goals, from the benign neglect of some values in favour of other guiding principles. (For instance, the remarkable and varying tension among CN's "commercial orientation", its "public service role", its State-ownership, and its "independence from government interference".)

Perron was handicapped by this relative ignorance of CNX's extant culture. It was difficult for him to understand objections and arguments made by various managers. (For instance, his management team's refusal to go along with buying a small courier firm and shifting to it all of CNX's Rapidex business; this attitude stemmed from the then prevailing assumption that integrated operations were desirable in order to achieve economies of scale.) These objections were grounded in values and assumptions which by their very nature, remained implicit, inarticulate and led to arguments which appeared "irrational" to someone imbued with different values.

Furthermore, his lack of awareness of CNX's system of beliefs and assumptions almost led to his buying into this culture, to accept some of its prevailing assumptions (about CNX's legal obligation, about the success of Rapidex, about productivity and cost efficiency in operation as the basic problems, about wisdom residing at H.Q.)

### Types of managerial actions within the transformation program or meta-strategy

It seems that the actions taken by the leadership during the turnaround of CNX fall into three distinct categories: technical, political and symbolic. Although a specific action could sometimes be classified into more than one category or lead to disputes about its proper attribution, this simple classification is helpful in following the occurrences during strategy implementation.

Management has and needs a technical, analytical, base. The structuring of strategic options, the derivation of cost functions, the analysis of competitive strategies, are all manifestations of technical management. Political management was essential and at times exquisite at CNX. Aligning a coalition of union leaders, politicians and CN executives behind the market concentration strategy was no mean achievement, a testimony to very adept political management.

Symbolic management, a poorly understood and haphazardly practiced form of management, refers to the conscious attempt at channeling the complex social processes through which symbols, meanings and values are created (Peters, 1978). Although spotty and intuitive, its practice at CNX was at times inspired. The shaping of American trucking firms into mythical objects of reverence, of ultimate achievement for CNX's management, provides a good example of symbolic management.

In the best of times, leadership requires competence in these three forms of management, certainly in the latter two (political and symbolic). But these leadership skills are urgently needed and severely tested in periods of transformation and upheaval. Radical change, understood as the synchronized, systematic alteration of the formal and informal character of an organization, offers a formidable challenge to any leadership faced with such a situation.

Perhaps, Figure 12-9 may help in understanding the nature of the task confronting a leader, such as Claude Perron, who has to carry out a radical transformation of a large, complex organization.

The implementation of a radical strategy will have been achieved only when culture, structure and individual members (or their mental set) have been changed and re-synchronized and successful economic performance has been achieved. However, these components, or sub-systems, change at different rates and through different mechanisms.

Management has a high degree of control over structural variables which can be changed (on paper at least) through competent technical management; a good dose of political management may be required to gather the support and consent required for their formal approval. If changes to structural variables are supported by, and legitimate within, present cultural context, their effective implementation will be swift and straightforward.

**FIGURE 12-9**  
**DYNAMICS OF CHANGE**

	DEGREE OF CONTROL BY MANAGEMENT	RATE OF CHANGE	MODE OF CHANGE
<b>SOCIO- STRUCTURE</b> (strategy goals, orga- nizational structure, management systems)	High	Moderate to high	Political and technical mana- gement plus cultural legitimacy
<b>CULTURE</b>	Low to moderate	Low to moderate	Symbolic mana- gement suppor- ted by structur- al changes
<b>INDIVIDUAL</b>	Moderate to high	Moderate to high	Conversion through repla- cement.
	Low to moderate	Low to moderate	Training, re- education, and the restruc- turing of assumptions and worldviews

When it comes to changes in culture and in the mind set of members, management's latitude is severely curtailed by the elusive but sedimented nature of these phenomena. It is here that skills at symbolic management become crucial; a sophisticated (or brilliantly intuitive) understanding of the reinforcing, mutually supportive role of symbolic actions and structural changes becomes a necessary if not sufficient condition for success.

CNX offered a good illustration of this process. Figure 12-10 catalogues this researcher's classification of some of Perron's actions during the period July 1978 - December 1982, according to whether they were technical, political or symbolic in character.

### The future

By early 1983, there was a general consensus at headquarters and at the regional levels that CNX was doing better as a result of a number of factors:

- 1) the specialization, that is the market concentration of CNX on LTL,
- 2) the decentralization of responsibilities and accountabilities at the terminal level, which makes the terminal function as a business unit,
- 3) the cut in the "fat" accumulated along the years (i.e. consolidation of terminals, reduction in the number of management positions) and,
- 4) the implementation of the computer system "Trace" (XTRAS) which provides better customer service (tracing) and better clerical support (billing, etc.) with a greatly reduced personnel.

However, impediments to further improvement in CNX's performance were identified and traced to structural factors which are not under the control of CNX's management:

- o the wage level (high by comparison with the trucking industry) set by contract negotiations for the entire CN corporation;

**FIGURE 12-10**

**CNX's Strategic Turnaround**

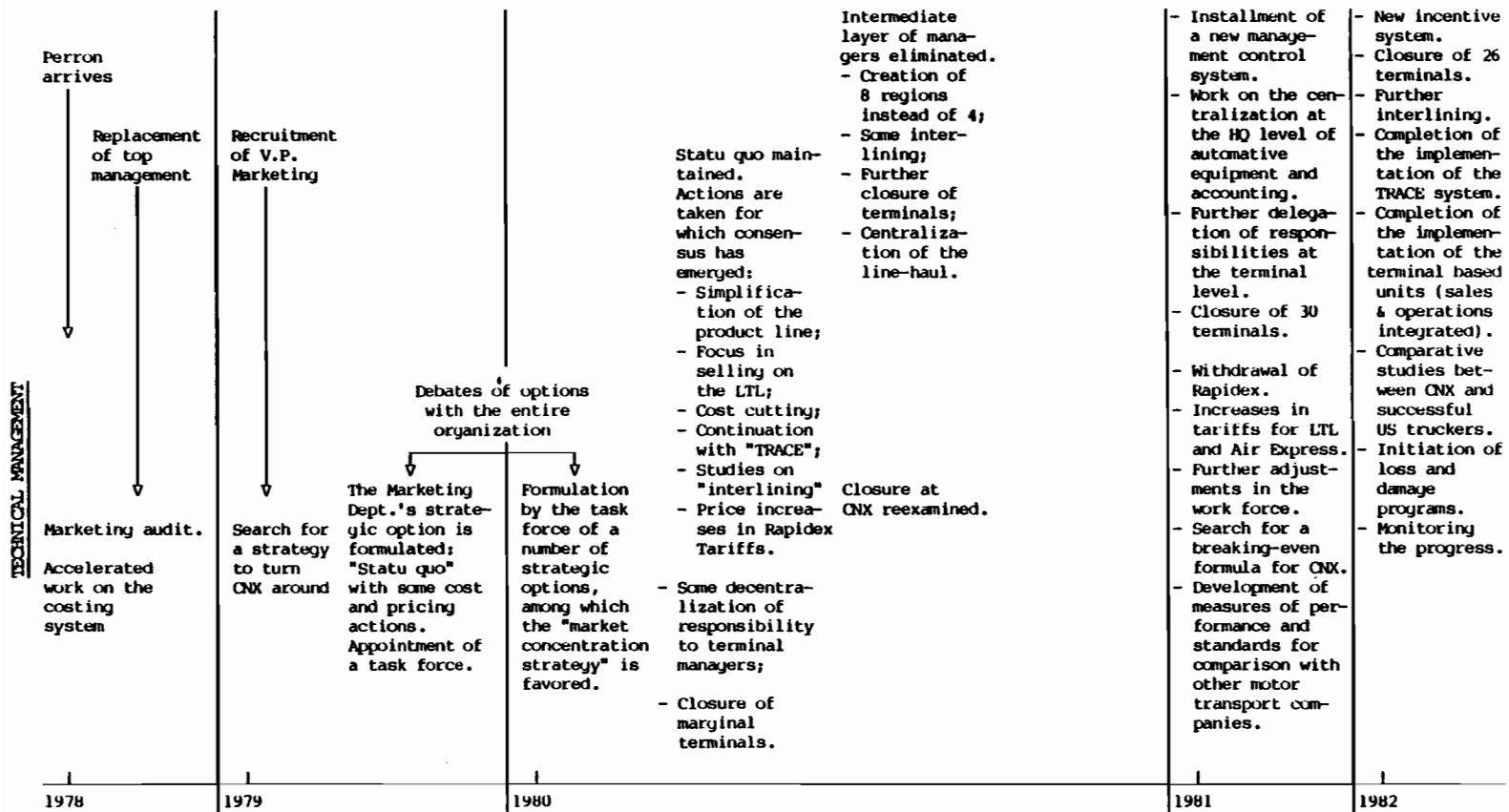


FIGURE 12-10 (continued)

CNX's Strategic Turnaround

STRATEGIC CHANGE (realized strategy)	POLITICAL MANAGEMENT					SYMBOLIC MANAGEMENT	
	1978	1979	1980	1981	1982	1978	1982
	<ul style="list-style-type: none"> <li>- Gaining credibility in the organization and at H.Q.</li> <li>- Tightening relationship with Bandeen.</li> <li>- Increase power basis by hiring managers from within CN.</li> </ul>	<p>"Breakfast with the President", visits to employees, video speeches in order to increase awareness of the crisis and gain support from the field employees</p> <p>Constructive dialogue with Unions: Establishment of joint labor/management committees to study the problems of CNX. The establishment of a "Hot Line" system with the Union.</p>	<p>Political infights. Perron seeks authorization from the CN Holdings to proceed with market concentration strategy. No consensus emerges and no authorization is granted.</p> <ul style="list-style-type: none"> <li>- Press releases to gain the understanding of clients, citizens and government.</li> <li>- Common communiques (Perron and the CN Union's leader) to convey agreement on cooperation to improve CNX financial situation.</li> </ul> <p>Authorization for closure demanded. The CN Board accepts CNX's closure, conditional upon support from the Government CN Board approves as interim strategy: "the market concentration". Clarification of the strategy and of its consequences to the Union Negotiating Special Agreement with Union on job security.</p>	<p>Negative reaction from the Government on closure. As alternative, "the market concentration" is demanded by the Board and approved by the Government.</p> <p>Clarification with Maritimes Provinces of the impact of CNX strategy on employment.</p>	<ul style="list-style-type: none"> <li>- Constructive dialogue with Union.</li> <li>- Periodic review of progress with union leaders.</li> </ul>		
		<p>"Breakfast with the president, visits to employees, video speeches to convey a new spirit and management style: H.Q. Management is now accountable to the field.</p>	<p>Team spirit encouraged:</p> <p>Perron conveys through all his acts the need for "a day to day" approach vs. "the long term perspective".</p> <p>Decentralization 8 regions and elimination of "layer of intermediate managers to symbolize the intent of "a bottom-line orientation" and the split with the railway structure. Press releases on CNX's intent of becoming "LTL new logo and slogan chosen "CNX the Heavy Weight Champion"</p>	<p>Official announcement of CNX's embarkment on the "market concentration on LTL" with the intent of becoming what they do best, "a national LTL".</p> <p>New slogan, new logo, color of CNX trucks changed from yellow (rail) to grey.</p>	<p>Training of personnel for the sale of LTL and for becoming a trucker.</p> <p>Creation of a new image, of a goal culture, i.e. Successful American truckers to compare with.</p>	<p>Discussions with the entire organization of how to achieve to goal image.</p> <p>Comparison with U.S. truckers.</p> <p>Continuation with the promotion of the new CNX logo "CNX - The Heavy Weight Champion".</p>	

- o rigid work rules (again by comparison with trucking firms) which do not permit quick adjustment of work force to fluctuating volume levels;
- o the low level of truck-load business by comparison with successful LTL truckers, because CNX cannot seek this business in competition with another CN entity, CN Trucking;
- o the handling of still too many shipments originating with low-volume shippers; the fixed transaction costs (billing, accounts receivable, etc.) associated with these shipments and the absence of discriminatory pricing practices at CNX, make these shipments financially unattractive;

Future actions seem to call for a shift from innovation to the institutionalization of the transformed ways of doing and thinking.

Typically, a manager spoke about the future in the following terms: "We have to break even, and keep insisting on the ways we have done things in the last 2-3 years". (Interview, January 27, 1983).

At the regional level, the priorities are described as follows: "We have to keep informing people outside in what business we are. To advertise directly to customers. To get testimonies from important customers about our service and keep doing what we are doing." (Interview, February 4, 1983).

Commenting on the same issue, an Express executive stated:

"In terms of priorities for the future we have first, to bring the deficit to zero; then to make CNX a viable trucker. We have to become a well-run rubber oriented company, a viable trucker in Canada". (Interview, January 13, 1983).



When I ended my study of CNX, in early 1983, there was strong evidence that the turnaround was proceeding well but was not yet completed. As a result, a routinization stage, described in other radical change situations was not observed. In what follows, I shall tackle the question of whether radical change had been really achieved at CNX at that point in time.

## **12.5 ASSESSING CNX'S STRATEGIC TURNAROUND**

Has radical change been achieved at CNX, has CNX's culture been transformed? Has there been a cultural revolution, a "change in the core value orientations" (Johnson, 1966), "a fundamental change in world view, an abrupt transformation of one conceptual scheme, one set of organizing principles for another" (Kramnick, 1972)?

The numerical evidence of a dramatic reversal of trends and results is fairly compelling. The deficit was decreased from \$53.1 million in 1981 to \$29.8 million in 1982, with an estimate of some \$22 million for 1983. The operation was reduced in size from 3,804 (5,200 in 1979) employees, 87 terminals and 2,546 vehicles at the end of 1980 to 2,388 employees, 31 terminals and 1,800 vehicles, by the end of 1982.

The quality of the traffic mix also increased during the same period, from \$31.81 in revenue per shipment and 210 pounds per shipment, to \$47.38 and 321 pounds. The service performance, measured by "on-time performance", has improved from 75% in 1979 to 79% in 1982; the number of claims, as a percentage of revenue has decreased from 3% to 2.1% during the same period. Productivity, measured in pieces per man-hour, has increased from 6.5 pieces in 1980 to 8.5 in 1982.

Recognizing that a dramatic overhaul of CNX's operations had been achieved, a feat which made possible the integration of CNX with CN Trucking, the board of directors of CN voted a unanimous resolution of appreciation to Claude Perron. In his letter to Perron conveying the news, Mr. Franklin, the President of CN Enterprises, writes:

"During the presentation of the CNX/Trucking business plan, the Directors noted that over the past three years the CNX deficits have been reduced from a high of \$53.0 m to this year's estimate of about \$25.0 M.

The Directors expressed their satisfaction and appreciation of the realization of that difficult task and commended Management in general and you in particular who, during your tenure as President of CN Express, have been instrumental in achieving these results.

There is no doubt in my mind that the bulk of the credit for this achievement must go to you and I want to add my appreciation to those of the Board for the job well done".(November 11, 1983).

Is CNX out of the woods? Not completely. Despite significant improvements in its performance, CNX was still posting large deficits by the end of the present inquiry. However, the evidence provided so far, supports the notion that radical change was taking place at CNX between 1979-82, although the turnaround was not yet completed.

Beyond the improved economic performance, which indicates an increased level of fitness between CNX's actions and its environment, the tangible, formal artefacts of the CNX organization do also indicate a broad transformation of its modes of operations and management; of course, to qualify as radical, that is, as cultural revolution, true and lasting changes must occur in people's minds and hearts. Evidence of such cognitive and affective transformations runs through the

various documents (memos, strategic plans, implementation programs, plans of action, etc.) of that period.

### New assumptions?

Indeed, a new set of assumptions and values seems to be at work at CNX, assumptions which are consonant and synchronized with the new socio-structural system of the organization. The main tenets of the old worldview have been replaced by new themes. The more salient of these old assumptions are briefly retold here for the purpose of comparison:

- CN has a legal obligation to offer transportation services in a non-selective manner (general national carrier) to the broad Canadian market;
- CNX may nevertheless become profitable even under those conditions, if sufficient volume is obtained, prices are well managed, costs kept under closed control;
- The best way to achieve these desirable characteristics is to go after volume and handle it through large integrated terminals affording maximum economies of scale;
- CNX has a certain degree of control over its market environment which entitles a hard-nosed approach vis-à-vis its clients;
- Planning for long-time horizons is essential to the good functioning of the organization.
- A top-down organization, whereby the primary relationship between employees is hierarchical with centralized decision making and status differentiation is required.

How many of these fundamental assumptions underpinning the cultural system of CNX in 1976 are still operative by 1983?

The evidence, both written and factual, indicate that none of these assumptions have any sway in 1983. Indeed, the reduction of the territorial coverage, the introduction of the interlining system, the

client-selectivity policy applied according to criteria of efficiency and not of the "public interest", are clear signs that the assumption of a "legal obligation to be a national carrier" has lost its hold on CNX's management.

Furthermore, the dropping of Rapidex and the "market concentration" on LTL, as well as the reduction in size of CNX terminals, are in direct contravention the old premise according to which "any volume is good" and "economies of scale are desirable and possible"; it has been replaced by the assumption that "success in the trucking business comes from specialization and low to medium sized terminals"; volume is an objective, in the new organization, but only within a specialized stance and a client selectivity policy.

Has CNX changed its approach to clients? It would seem so. The improvement in their service (as evidenced by the improvement in the indicators "on time performance" and "claims as % of revenue") as well as the policy of flexible pricing (rate equalization with those of competitors is now delegated to the terminal level) indicate that the assumption of CNX's vulnerability to competitive forces in the market is gaining ground.

And what about "cost control and knowledge" as an important prerequisite for success? It now has a totally different content. While in the old culture, cost control was pursued regardless of the market positioning of CNX, in the transformed organization, it is understood, that "cost control and reductions" must be achieved, but conditional upon, first and foremost, a correct market strategy.

Specialization or concentration on one product line, according to the demands of a fragmented industry, is the prerequisite for a sound revenue-cost relationship. Further cost control and reductions are desirable, but only after this condition is met. In other words, cost control is a necessary but not sufficient condition. The reality of the trucking industry, which operates on very small profit margins,

imposes a "cost control mentality". At CNX, the terminal-based structure, the delegation of responsibility for revenues and expenses to the terminal manager, the promotion of "the operating ratio" as the main control indicator of performance, the increase in productivity are manifestations of a more adept understanding that "cost control and reduction" is a prerequisite for success.

As to the time horizon, nobody now believes that revenues and expenses can be forecasted over a five year period. There is now a flexible type of planning at CNX, with emphasis on next year. Furthermore, the organization is decentralized, with the terminal operating as a "profit center".

### Cognitive change?

These tangible manifestations of a new order, of a new form of management at CNX are echoed in the comments of actors, indicating that a cognitive reorientation has taken place. In typical soul-searching fashion, a regional manager assessed the situation:

"We changed our attitudes, our service has improved. In 1981, our service was not excellent but better than before. People became more productive, dropping a coffee break for instance, to load or unload traffic which has just arrived. Now we are competing directly with truckers. We think now like truckers. We give them a rough time. The way of thinking of truckers is different from what we used to think. Their first command is: pick up the shipment and deliver it as fast as possible, with no delays. The successful truckers are service oriented. Rates are not that important. Generally, there is a trade-off. It is a simple business, where good rating, good information and speed, without damages to the goods are criteria of success. In two words: fast and efficient. Before, CNX was not able to do that. First, we didn't have the tools, the computer system; second, in a very competitive market, we were too slow, too complacent. It is a tremendous change in our people's attitude toward service. The operation ratio is also becoming the most important indicator; it is "the indicator". (Interview, with regional manager 4 February 1983).

The management and operating personnel of CNX are learning to think and act like truckers. This process, well underway, is supported by structural changes and reinforced by symbolic actions.

A top manager, reflecting on the factors accounting for CNX's turnaround, states:

The most important decision was to give to the terminal manager the responsibility for the profitability of his unit. To be successful one must be able to price one's traffic and one's service at the most competitive level and against one's expenses accordingly. More specifically, the terminal manager is now responsible for Revenues and Expenses for his terminal which is now a business unit. The sales price is under his jurisdiction. Before, somebody else did the revenue budget for him. The terminal manager has now a different mentality - he is interested now in making money and controlling costs, and he is responsible for the level of the operation ratio. Before, there were no revenue targets. The objectives were set up in volume terms, for instance a 10% increase in volume for the next year. We used to give him the price and asked him to find the customer. Now, the revenues targets are set up by months and for six categories of shipments. There are also targets divided among the six categories in terms of shipments, number of pounds, revenue per shipment and pounds per shipment. The search is for heavyweight type of business now rather than small since it is more profitable, you can get more money for the same amount of work. The terminal manager can decide on rates equalization with those of the competitors. And as for motivation to work hard, it is his salary which is higher than the industry average". (Interview, 27 January 1983).

A regional manager provides a vivid picture of his transformed role in this new set up:

"The terminal manager should be as autonomous as he can. I succeeded to do this. They understand now their responsibilities. It depends on the style of the regional manager. If the regional manager is authoritarian, he cannot make a businessman out of a terminal manager. You have to let them operate their terminals indepen-

dently. How to achieve that? Endless talk, every week, in every terminal. Use examples! Do not work for them, insist that they decide for themselves. At the beginning I went through traffic offers with them, with pros and cons. You don't have to usurp their authority. They refuse unprofitable accounts now. This is unheard of. The terminals managers are going to make or break us. They start suggesting things. Things are coming into places. I encourage communication between terminals. They cooperate. I am here to help, I tell them, to be your assistant. In terms of generation of revenues, we are doing better now". (Interview, June 20, 1983).

Commenting on the same issue, another Express officer stated:

"A bottom line orientation, that is: it is up to you to do it, has been installed; the terminal manager is responsible for revenues and expenses and has to act as a businessman. We tell him: You have to sell for so much. If he doesn't, he has to reduce expenses correspondingly. He has full responsibility for profitability. The main targets are set up at the headquarter. Nevertheless, targets are discussed and negotiated 2-3 times per year with regional and terminal managers and the sales personnel. The terminal managers' motivation to do well is a good salary, which is higher than the industry average". (Interview January 27, 1983).

"Bottom line", another manager said, "brings an awareness and a necessity to deal with problems, which people in CN rail, unfortunately did not have. It precipitates a need to move faster than the rate which is accepted by the rail mentality. There is an awareness now that you can do a lot more with fewer people if you can get them on your side. Besides that, people were very motivated to work because there was a real threat of closing down (Interview, February 4, 1983).

There is strong evidence that a relative state of congruence has been established among CNX's culture, structure, and actors' thinking and doing.

## 12.6 Conclusions

This chapter has provided this researcher's interpretation and conceptualization of the dynamics and processes observed during CNX's strategic turnaround (1976-1982). A number of steps in the formulation and implementation of the turnaround were inferred. These steps were sometimes concurrent or overlapping, but more often sequential. These will be briefly outlined in this conclusion:

### 1. A period of individual stress and cultural distortion

The organization experiences a crisis due to a misfit between the organization's theory of action and its environment, that is, a value-environment dissynchronization. The crisis is evident in both financial and morale terms and unless drastic action is undertaken to reverse the situation, the organization will disappear. "Loss of authority" and "power deflation" ensue, which are visible in widespread doubts about top management's ability to cope with the situation.

### 2. Elite replacement

A new leader is installed to carry out the task which has baffled and eluded the previous leader. Quite commonly, the new leader will change part or all of the top management team.

### 3. Emergency life-support actions

The new team engages in a number of emergency actions that attempt to prolong the financial viability of the firm. The new management also symbolizes a renewed will and capability to cope with the problems in order to change the feelings of discouragement and futility rampant among organizational members.



#### 4. The formulation of a new code or theory of action

The leadership searches for a goal structure and culture, the formulation of a code, that is a "new goal structure and culture" implies a diagnosis as to the roots of the crisis; the diagnosis concerns both the external competitive situation of the organization and its internal capabilities. The formulation of a new code actually constitutes the elaboration of a different cognitive structure. The formulators of the code themselves experience a "mazeway resynthesis".

#### 5. "Communication of the code" or "managing ideology"

The top management presents the "goal structure and culture" (i.e. the new strategic orientation, the organizational design and its corresponding values) to organizational members as a solution to the problems of the organization in order to obtain their support. It is a period during which the leader attempts to stir emotions, to create an atmosphere of optimism and confidence, a climate of experimentation propitious to fast and energetic actions. The crisis provides management with a receptive audience. Conversion gradually occurs especially among managers, some of whom will act as disciples.

#### 6. The cultural transformation

It is during this period that the notion of "radical strategy" gains its full significance. Top management engages in a number of technical, political and symbolic actions, in order to bring about required major changes in goals and strategies in organizational structures and management systems. Cultural change is fundamental at this point and a new synchronization between culture and social structure must be achieved.

The challenge is therefore to bring about the changes in culture and individual mind sets required to support and reinforce the changes in strategic orientation.

Is there a prime-mover or a trigger in this process? According to the empirical evidence provided by the present study, effective changes in culture and structure were carried out in a rather coordinated sequence of actions, mutually reinforcing and legitimating and aimed at cognitive reorientation, at restructuring the mind sets of management and employees. In the process, some tension between culture and structure was inevitable as changes at one level were not rooted in the other. However, this tension was calibrated so that it did not reach a point where the linkage was severed and present culture became antagonistic to the new structure. The resulting confusion, disarray and disorientation among the members of the organization would have been disruptive had this occurred.

Three main lessons may be drawn at this particular stage:

- a) The resynthesis of the management's mind set is a necessary but not sufficient condition for cultural transformation to occur;
- b) A "transfer culture" or "meta-strategy" is essential for effective radical change in an organization. However appropriate the goal culture and structure, the actual transformation of the organization will fall short of the goal if its formulators do not know how to translate it into collective action; in other terms, if they do not define an appropriate transfer culture or "meta-strategy".
- c) The three subsystems of an organization change at different rates and through different mechanisms and the management has a different degree of control over each of them.

A radical strategy has been achieved when culture, structure and individual members have been changed and re-synchronized and successful economic performance has ensued.

## CHAPTER - 13

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**SUMMARY, GENERAL OBSERVATIONS  
AND AVENUES FOR FUTURE RESEARCH**

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This last chapter offers, in a brief form, summary statements and general observations that emerge from this extensive examination of one organization's travails.

### 13.1 A Theory of Radical Strategy Formation

This thesis proposed a theoretical framework for studying and/or carrying out radical strategies. It is but one theory, although it is one that explains well a broad range of phenomena and which has proved useful in making sense out of a particular, complex case.

The broad outlines of this theory are as follows:

- The theory takes as its starting point what might best be termed a radical or "conflict" functionalist view of organizations (Coser, 1956; Johnson, 1966; Merton, 1967; Turner, 1974; Alexander, 1982). Organizations, to be successful, must achieve a high degree of fit between their output and the requirements of their external contexts. This achievement will come about in an effective and durable manner only if there is a high degree of consonance among the organization's sub-systems of culture, structure (i.e. strategy, goals, organizational design, management systems) and people.

This state of consonance may result from the harmonious integration of all sub-systems, or from a workable arrangement and compromise among conflicting values, groups and organizational units. The theory tends to view the former as the more effective but also as the more difficult to achieve as the social system increases in size. Therefore, large societies and large organizations will rarely achieve overall equilibrium other than by finding coincidences among conflicting interests, whereas harmonious integration may well prevail in smaller sub-units. However, the theory proposed here does not assume that social systems are characterized by a state of permanent simmering conflicts between antagonistic interest groups (Marx, 1971; Dahrendorf, 1964).

Furthermore, consonance or equilibrium does not mean stability (Russet, 1966), but a more or less dynamic state of adjustment which may be perturbed by endogenous or exogenous factors. There are in this theory no homeostatic processes that maintain or restore equilibrium. Organizations may slide into decay and die without corrective adjustments occurring sui generis. On the contrary, reactions and attempts to correct the situation may worsen it and push the organization on an irreversible skid into oblivion. Radical change occurs when the organization moves from one set of consonance or equilibrium conditions to a new set which is discontinuous with present trends and tendencies.

This theory casts culture in a critical role. Culture is defined as a particularistic system of symbols which gives meaning, coherence and predictability to the flow of inscrutable events in and around an organization. The cultural system of an organization is conceptually separable from its social structure and capable of a wide range of modes of integration with it (Geertz, 1973; Johnson, 1966; Parsons, 1951). This problematic integration of structure and culture is fraught with potential for tension and dissynchronization, which is a significant factor in understanding the dynamics of change in social systems.

However, the theory treats culture and values in a broader framework than is often assumed for functionalist theories. Individual members may exhibit various degrees of integration and submission to the organization's cultural system. Different groups of members may subscribe to different subsets of values. These "values" permeating organizations may be conflicting and lead to different modes of reconciliation for different sub-groups or at different times. The "values" making up the cultural system may range in nature from the very integrative common-sharing-of-goals type, to the fostering of opportunistic, calculative behavior among members.

Finally, the theory proposed here is more concerned with diachronic influences than is usually the case with functionalist theories. The organization's structural and cultural make-up is considered the result of the complex interplay of synchronic, present-day influences and of past occurrences which linger on, which have sedimented, in the organization.

- Pressures on the organization and its deteriorating performance tend to come from changes in external contexts. These changes may have been sudden and discontinuous; or, they may have been gradual but undetected for a good while because of a faulty organizational mind set, as was the case at CNX. The overhaul of strategies, structures and systems required to resynchronize the organization to its changed contexts is of such magnitude that it calls for major changes in supporting values, assumptions and mind sets. Without such a change in cultural system, the intended strategy will not be effective; it will remain at the level of cosmetic changes, at best, or will plunge the organization into chaos and disarray, at worst. A strategy is termed radical when it requires and includes changes in the organization's cultural system for its successful implementation.

The emphasis here is on externally induced disequilibrium; it is not a denial of the very real possibilities that even in the absence of any significant contextual change, internal problems may provoke a severe misfit between the organization and its relevant environments. Internecine conflicts and schisms that lead to stalemated power holders (Mintzberg, 1983), corruption, nepotism and other pathologies and neuroses of leadership (Kets de Vries and Miller, 1984), strategic double-binds and Gordian knots, may well corrode an organization's performance and brings its downfall as surely as cataclysmic changes in its environments. However, external occurrences will most likely trigger the crisis, or precipitate decline, thus bringing to light these internal problems (Bibeault, 1982). Furthermore, many of these internal defi-

ciencies are conducive to a poor organizational mind set, a poor theory of the organization's realities, which is the process by which this theoretical framework takes account of these factors.

- o It is the leadership's responsibility to trigger processes that aim at correcting the organization's misfit to its contexts. The theory focuses on actions taken by a leadership with a mandate and a mind to transform the organization in both its cultural and socio-structural systems. As such, the theory demarcates itself sharply from the "resource-mobilization" perspective (Zald and Berger, 1978) with its emphasis on insurgencies, coups and mass movements. The leadership may have been recently installed by legitimate authorities unhappy with the performance of the previous leadership, a most usual occurrence in cases of turn-around; or, the leadership may be moved to action by widespread dissatisfaction, by its desire to stave off insurrections, or by fear of forcible replacement. But, in this specific theory, the sanctioned leadership remains the architect of the radical change programme and the coach of its implementation (Bourgeois and Brodwin, 1984). However, the means and processes used to bring about such changes may involve consultation with a large number of members; and the actual contents and tempo of the change programme may be set in good part by those affected by it. This is a theory of revolution "from above" but it is not based nor dependent upon an imperial style of leadership.
- o This thesis illustrates a number of stages and heuristics which help to understand the processes of radical strategy formulation and implementation.

Indeed, the study of CNX supports the findings of other studies on discontinuous organizational or societal changes. It identified a number of stages in the revolutionary process:

- 1) A period of individual stress due to a value-environment desynchronization;



- 2) The replacement of leadership and of the management team;
- 3) Emergency life-support actions;
- 4) The formulation of a "goal culture and structure" (new strategic orientation, with its corresponding organizational design and value system);
- 5) Communication of the "goal culture and structure" as means for achieving a new equilibrium;
- 6) Cultural transformation as an overt attempt to implement the "transfer culture".

This study also underlined some important concepts:

- The notion of transfer-culture (or "meta-strategy"): the leader as revolutionary must have a strategy to get a new strategic orientation (goal culture and structure) formulated and implemented. This meta-strategy should reflect the leader's theory about how to carry out such an endeavour. In the absence of any explicit theory to guide him, his actions will be groping and haphazard; and his profession of atheoretical pragmatism may only signal, to paraphrase Keynes, his unwitting slavery to some defunct (or retired) organizational psychologist. To quote Lenin, no theory, no revolution.

A meta-strategy or "transfer culture" is comprised of technical, political and symbolic actions, which are mutually reinforcing and carried out in a coordinated sequence. Indeed, this study of a radical strategy situation has led to a demarcation of very different management skills that are called for in the practice of leadership, perhaps at all times, but certainly with particular acuity during times of transformation. Few individual leaders are masters of all three; however during a period of organizational upheaval, the leader better have considerable skills at political and symbolic management; a relative weakness at technical management may be corrected by appropriate staff support. Remedy is not so forthcoming with

political and symbolic management; it is almost impossible to compensate for a leader's grave weaknesses on those dimensions.

- The notion of organizational mind set: as the joint product of an organization's cultural and structural arrangements, and of the peculiarities of human information processing, this hypothetical construct is very useful in explaining surprising lags in adjusting to changed contexts. It leads to the concept of the meta-cultural actor as essential to the very initiation of radical change processes; that is, diagnosing the need for a radical strategy can come only from actors who understand the organization as a socio-cultural system but who have managed to resist its acculturation and structuration of mind.

This concept of an organizational mind set underlines an organizational paradox of some importance. These same processes which give structure to members' experience, which provide support and legitimacy to on-going actions and decisions, and which increase the manageability of large groups of people, may also forge shackles of mind and bias perceptions of reality. The practice of management is then entirely conducted within the confines of the conceivable as defined and demarcated by the mind set of the organization, with no need nor urge to lift the "veil of ignorance" that has descended upon the leadership of a social system.

### 13.2 Contexts Versus Contingencies:

There Tends To Be a More or Less Lengthy Lag Between Changes in the Contexts of an Organization and the Working Into the Organization of these Changes as the New Contingency Factors.

The conceptual model presented at the outset of this research proposes a critical distinction between contexts and contingency factors. The latter refers to significant characteristics in the firm's environ-

ment which have been assimilated into the operations of the organization, which have worked their way into its structural and cultural properties. Contexts, refer to the present, synchronic, realities of these environments. As long as contexts and contingency are isomorphic, as long as the former is a continuous version of the latter, their relationship (linkage i) creates no difficulty.

The empirical study of CNX provides strong support for the notion of lag between changes in the contexts of an organization and the moment when these changes have worked their way into the organization as the new contingency factors. This observation applies both to CNR's evolution over the period covered by the present study and to CN Express operations. Indeed, the longitudinal study of CN over a period of 60 years has shown that major discontinuous changes in its contexts (signaled in this study by the delineation of four distinctive periods) have, each time, led to slow changes in CN's structural and cultural dimensions.

Furthermore, this research has also shown that these changes in contexts were perceived with difficulty through the prism and filters of the extant structure and culture and then worked their way into the organization very slowly as the new contingency factors to which CN had to adapt. These processes have resulted at CN in ten to fifteen year cycles of adjustment to radically changed realities and to poor economic performance during the process. For instance, it took CN almost ten years to fully adjust to the 1967 National Transportation Act which constituted a breach in the environment by offering wider commercial freedom to the railways. The new context actually began working its way into the organization as the new contingency factors only after 1972. This pattern is recurrent throughout CN's history.

### 13.3 Infrastructure Versus Superstructure:

#### Contingency Factors May Play an Important Role in Structuring the Culture of an Organization.

The conceptual model outlined in this thesis proposes that organizations may be shaped and influenced by three sets of factors: society, history and contingency. The relative influence of these factors on any organization is an empirical question of considerable importance and implies a diachronic study to untangle their specific, lingering effect on the present-day functioning of the organization.

Indeed, the study of CNX has identified a set of fundamental assumptions and values and an organizational structure that have stemmed directly from the railway's contingency factors and its specific genesis and historical circumstances. This thesis has shown and stressed the critical role of "contingency factors" in shaping an organization's structure and culture. Contingency factors of an organization may be as potent in structuring minds as any charismatic leadership or company saga. Furthermore, because they arise from the organization's adaptations to the basic technology and economics of its industry, these factors tend to be less conscious, more inarticulate and therefore more occult in their conditioning of actions and behaviour.

A direct consequence stemming from this observation is the emergence of a new typology of culture on the basis of its major driving source. The main types are:

- 1) A charisma-driven culture, wherein powerful socialization processes emphasize the organization's saga, its founder's vision, its past and present leaders' achievements, its uniqueness, its commitment to customers and employees (IBM, Hewlett-Packard, Bata, etc.). The leadership of a successful organization often fosters the values and assumptions that they deem

functional, even critical to success in a given environment. These values are made explicit and supported by a whole array of symbolic and tangible reinforcements.

- 2) A contingency-driven culture. Contingency factors structure the mind and shape the behaviour of organizational members. The similarity of vision and lexicon found in different railway companies, in different banks or firms operating in highly regulated environments points to this conclusion. The role of similar contingency factors (i.e. regulated monopoly or duopoly, national public service, highly capital intensive) in shaping similar cultures, in spite of strong differences in the other two sources (society and organization's history) is best evidenced by a comparison between the pervasive assumptions at AT & T (Tunstall, 1983) and those present at CN as captured in this thesis. Indeed, such assumptions as: "AT & T's role is to provide the best universal service at the lowest possible cost in a regulated environment"; "operational efficiency, technical skills and a high level of efforts to create a favorable regulatory climate, are the key for success"; and "AT & T is a big family, which cares for its employees", find a striking echo in some of the assumptions found in CN: "CN has a public service responsibility to Canadian communities"; "revenues for commercial viability are to a large extent dependent upon regulatory and political decisions and orders"; "costing expertise and technical skills are critical to success"; "CN is a big patriarchal family".
  
- 3) A society-driven culture. Ambient society's values and mores are reproduced in the organizations functioning in its midst. It has been claimed that Japanese organizations offer a value environment that is but a replica of the larger society's; by contrast, American organizations which seek to create value environments similar to the Japanese firms must, it is argued, become sub-cultures (or even counter-cultures) within American

society (Ouchi, 1979). As American society presumably fosters modes of thinking and behaving that are not conducive to corporate excellence.

The above typology has merit in that it clarifies a number of theoretical and methodological issues:

First, labeling culture as strong only when it results from conscious socialization efforts by management to create a suitable value environment is highly misleading, although frequent in the current literature on culture. On the contrary, as this thesis has shown, culture can be equally strong in structuring the mind and shaping behavior when it results from the powerful and more subtle influences of the organization's contingency factors. In other words, culture must not be "charismatic" to create templates for behaviour.

Second, it clarifies the relationship between organizational culture and performance. Whether the set of assumptions which is foisted upon organizational members results from a charismatic leader's actions or from the organization's slow adjustments to contingent or societal influences, the critical issue is the degree of functionality of these assumptions for the success of the firm. Cultures are functional or dysfunctional to the extent that they support and legitimize the actions and relationships which are necessary for the organization's success. Different types of dysfunctional cultures could be identified, which is a research undertaking in itself (for an interesting start in that direction, see Kets de Vries and Miller, 1984).

Furthermore, and most disturbing, assumptions which may have been functional at one time can become the very stumping block of the organization at another time. For instance, at both CN and AT & T, cultures were quite functional for the industry and context in which these organizations were rooted; however, their assumptions and values became very burdensome and dysfunctional in different times and contexts, such as AT & T in communications/informations systems or CN in the trucking business.

Third, this typology underlines the fact that any endeavour to assess an organization's culture must investigate both the diachronic and synchronic processes which shape the present-day functioning of the organization.

In this respect, an important contribution of this thesis comes from its proposing and testing such a methodology for the assessment of culture in organizations.

#### 13.4 Heterogeneity in Assumptions:

##### Cultural Assumptions Can Be Conflictual and Held with Different Intensity by Various Groups in an Organization.

Generally speaking, the values and assumptions identified at CN and CNX as making up their cultural system are more of the common-sharing-of-goals type (they saw themselves as "a big family") rather than opportunistic and calculative. However, tensions or conflicts between assumptions and sometimes between groups holding conflictual assumptions were present. But the study of CNX has shown that culture in an organization can play a guiding, controlling role, even when its underlying assumptions are conflictual (e.g. independence from government and viability that depends upon political decision) Such a situation does create tensions and provides for variations in emphasis at various turns in the organization's history, but does not hinder culture's role as a template for behaviour.

Furthermore, an organization, as a legally defined entity, may shelter several subcultures defined by the particular values and assumptions which are emphasized and given allegiance to; for instance, the union's leadership at CN is not keen on the "big family" concept, but stresses at every opportunity the "public service" role of CN, as a rempart against the cut-backs and rationalizations that a strictly commercial role would impose on CN.

### 13.5 Limitations and Avenues for Future Research

This thesis has propounded a theory of radical strategy formation. It has provided a considerable body of conceptual foundations for this theory and a lengthy empirical assessment of its workings and plausibility. However, it is but one theory, but one case study, but one methodology. Is it likely that another theoretical framework would have captured just as well or even better the dynamics of the turnaround at CNX? That is for the readers to answer and for other researchers to demonstrate.

The theory of organizational dynamics that has been the fulcrum of this study leads to a rich set of questions about the functioning and transformation of organizations, many of which have been but briefly touched upon in this study. Some of the linkages of the conceptual model have not been researched to any extent; for instance, the role of ambient societal culture in shaping organizations or the problematic integration of individual members into culture.

The two-step methodology used in this research and its emphasis on written documents supplemented by interview materials, worked well. However, in studies such as this one, the issue of validity is always a tricky one. Would another researcher having access to the same materials come to different conclusions? The only safeguard offered to the scientific community comes from the very explicit and detailed character of the study, and the precise identification of documents used as sources. It would be virtually possible for a different researcher to examine these documents and sources and draw his own conclusions.

This thesis has sought to unite theory and praxis in its prescriptive stance about the tasks of leadership and the challenge of creating better organizations. To researchers, it offers a blueprint for further studies in the processes of organizational growth, decay and rejuvenation. To any leader confronted with this most demanding of task, the radical transformation of a large social system, this thesis may provide useful guidelines and some solace!



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