Judgements of Responsibility and Mind Brain Dualism in Clinical Psychiatry

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Abstract

This thesis explores the phenomenon of mind-brain dualism in contemporary Western psychiatry from an anthropological and social psychological perspective. In a first chapter, it reports on an empirical study involving 127 staff psychiatrists and psychologists at McGill University who responded to a questionnaire based on clinical vignettes. Results revealed a latent process of judging patients' responsibility for illness, where the more a behavioural problem was seen as 'psychological,' the more the patients tended to be viewed as responsible and blameworthy for their symptoms, while behaviours with 'neurobiological' causes showed the opposite tendency. A second chapter reviews the history of psychosomatic medicine and argues that specific biomedical and psychological sick roles exist for patients that determine the ways in which their actions are judged, as well as how the functions of the rational mind are commonly understood. Insights from evolutionary psychology are used in a third chapter to speculate on new models of mental illness that may provide new contexts for negotiating mind-brain dualism and judgements of responsibility.

Résumé

Cette thèse propose une perspective anthropologique ainsi qu'une approche psychologique-sociale pour examiner le phénomène du dualisme esprit-cerveau dans la psychiatrie contemporaine occidentale. Le premier chapitre présente les résultats d'une étude empirique où 127 psychiatres et psychologues de l'université McGill ont répondu à un questionnaire basé sur des vignettes cliniques. Ces résultats révèlent une tendance à faire passer discrètement des jugements de responsabilisation auprès des patients atteints de maladies comportementales; on semble blâmer les patients atteints des problèmes « psychologiques », bien qu'on considère comme non-responsables ceux qui ont des maladies « neurobiologiques ». Le deuxième chapitre passe en revue l'histoire de la médecine psychosomatique et essaie de montrer l'existence des rôles des patients dans la biomédecine et la psychologie, tout en déterminant les manières dont leurs actions sont jugées, ainsi que la compréhension des fonctions habituelles de l'esprit rational. On propose dans le troisième chapitre plusieurs nouveaux modèles de maladies mentales basés sur des concepts de la psychologie évolutionnaire, qui tentent d'aller au delà du dualisme esprit-cerveau et des jugements de responsabilisation.

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The second chapter of this thesis has been accepted for publication as an original article in the American Journal of Psychiatry, and for this reason the copyrights for this material are owned by the American Psychiatric Association, and reproduced here with permission. Dr. Laurence Kirmayer is co-author of that publication.

Figure 1.1 in this thesis is reproduced with permission by Guilford Publications, Inc. © 1995.

Overview

Mind-brain dualism, similar to mind-body dualism, is the idea that the mind is somehow distinct from the brain and the rest of the body and that its essence cannot be reduced to purely material, deterministic neurological mechanisms (Priest 1991). This deceptively simple idea is part of a debate that extends from the most ancient traditions of Western philosophy and theology to contemporary neurophilosophy, and that addresses such fundamental questions as what it means to be an individual and what is the nature of our thoughts and experiences. A dualistic view implies that what is quintessentially unique and subjective about people – our consciousness, thoughts, intentions, ambitions, creativity, passions, identities – is different in quality from anything that can be understood in terms of cells, chemicals or genes.

It was in modern times that mind-brain dualism became the preferred model in the medical fields, particularly in psychiatry, as patients' thoughts, experiences and behaviours became the objects of clinical investigation. Some sources claim that this was the direct legacy of Rene Descartes' philosophical formulations (Dubos 1965; Hastings et al. 1980; Brody 1980; Slavney and McHugh 1986); Foucault attributes this to the nineteenth century asylums and the advent of "moral methods" for treating madness (Foucault 1965); others see it as resulting form the rise of psychoanalysis in the first half of the twentieth century (Shorter 1997, Luhrmann 2000). What seems clear is that this rift has become increasingly frustrating for psychiatrists who prefer to see the commonalities between the psychological and biological therapies that they now use to treat the same disorders (Luhrmann 2000).

Viewed increasingly as a concept with little empirical value, the last few decades have thus seen efforts to do away with mind-brain and mind-body dualism in psychiatry and in all of medicine, and to promote new models, such as the bio-psycho-social model (Engel 1977), that emphasize a more holistic view of illness and the person. Prominent researchers have proposed new theoretical models that bridge the gap between the psyche and the brain and have heralded the end of dualism in scientific thought (Goodman 1991; Damasio 1994; Maunder 1995; Andreasen 1997;

Kandel 1998; Kendler 2005; Bolton and Hill 1996; Bennett and Hacker 2003). Nevertheless, various investigations have suggested that despite all the rhetoric, practicing psychiatrists and physicians in general continue to operate according to a mind-brain dichotomy in ways that are often covert and unacknowledged.

This thesis explores mind-brain dualism's place in contemporary, Western psychiatry, both in psychiatry's theoretical corpus and in its clinical practice. It attempts to understand some of the origins of dualism as a style of reasoning and to assess its implications within the field. It begins, here, with an overview of current theories of the roots of dualism from both anthropological and cognitive sciences perspectives, both of which suggest that mind-brain dualism reflects, at least in part, observers' attempts to distinguish between voluntary and involuntary forms of illness. This paper then reports on an empirical study conducted to verify aspects of this general model in a group of practicing Canadian psychologists and psychiatrists. Next, an historical analysis of the construction of alexithymia within the field of psychosomatics provides an opportunity to examine how mind-brain dualism shapes the most fundamental aspects of theory and clinical practice within psychiatry and medicine, and offers some insights on why contemporary Western cultures seem to be most preoccupied by the problem of integrating mind and brain. The thesis concludes with speculations on how the mind-brain problem may become reframed within psychiatry as emerging fields of research, such as animal and human ethology, attachment theory and evolutionary psychology, gain prominence within mainstream mental health sciences.

The anthropological perspective

Anthropologists of medicine, and in particular those examining the field of psychiatry, have for long remarked on the peculiarity of psychiatry's dualistic approach. This brief review summarizes some of these observations from a thematic perspective, highlighting dualism's role in signifying attributions of responsibility and blame.

Kirmayer is the author who has most explicitly argued that 'mind' and 'body' are used as metaphors in biomedicine to disguise the more fundamental moral and conceptual split between voluntary and involuntary illness (Kirmayer 1988). According to this view, illnesses are characterized by the extent to which patients adhere to a proscribed sick role, as delineated by Talcot Parsons (Parsons 1951). Biological illnesses are those that are seen as occurring independently of any intentions of the patients, and so long as the patients comply with the doctor's treatment plans they maintain their moral innocence and the presumption of being rational and completely divested and opposed to the illness process. Once an illness is characterized as psychological, the implication becomes that the patient somehow intended and caused its occurrence, or at least, that he or she colluded with the illness process rather than comply with the doctor's efforts. Foucault held a similar view of the mind-brain dichotomy in medicine, writing:

> "Physical therapeutics tends to become, in the first half of the nineteenth century, a cure devised by innocent determinism, and moral treatment a cure wrought by culpable freedom. Psychology, as a means of curing, is henceforth organized around punishment." (Foucault 1965, p. 182)

Shweder maintains that this distinction between voluntary and involuntary forms of illness is one that can be found in most cultures. According to this view, there is a universal tendency among humans to explain suffering and give meaning to pain through the use of certain "causal ontologies" (Shweder 1997), which are expressed through "illness narratives" (Kleinman 1988b). Interpersonal and psychological causal ontologies both blame people for the occurrence of the illness, seeing these events as intentionally caused by people; psychological models focus the responsibility and blame on the sufferer, while interpersonal models blame other people for the sufferer's condition (Shweder 1997). Regarding psychological models, Shweder writes:

> "Indeed, in folk psychology the elevation of this or that necessary condition to the intellectual status of an attributed 'cause' is an act of selection and interpretation that can be understood only within the context of practices and institutions aimed at finding fault, righting wrongs, and gaining control over future events."(ibid, p.124)

In contrast, biomedical causal ontologies portray suffering as a by-product of physical events outside the realm of human actions and are thus considered morally neutral (ibid). Western culture, with its emphasis on individualism and personal autonomy on the one hand, and materialism and scientific technologies on the other, is fertile ground for a clash between psychological and biological causal ontologies (Kleinman 1988b).

Regarding Western psychiatry, Luhrmann has shown just how insidious can become the process of finding moral faults in patients for the illnesses they manifest. She documents how within psychiatry there is also a specific sick role that is expected of patients.

> "When that young man could say that he had been ill and began to discuss the problem of being ill, his intentions and his reports on his state of mind began to be treated like responsible, reasonable assertions. That part of him moved into the adult category. He became a person with an illness, not an illness in a body. The unfortunate but accurate implication here is that if you wanted to leave the hospital, you were still sick, but if you agreed to stay, you were treated as if you were getting well."(Luhrmann 2000, p.140)

In other words, similar to Talcot Parson's model, patients in psychiatry are trusted to the extent that they can view their illness rationally and with the same objectivity and displeasure as do their psychiatrists. When they achieve this level of 'good

judgement' and 'insight,' it is as if the psychological component of their illness becomes diminished, and only the biological disease process – the part that is separate from the patient' personhood – remains salient (Sullivan 1987). Luhrmann explains that "[d]octor-patient relationships [in psychiatry] were negotiations about how to categorize patients' intentions – which parts were part of the disease and which were part of the patient's rational, reasonable personhood"(Luhrmann 2000, p.140).

When patients do not cooperate with their doctor's treatments they can become ". . . a source of harm to a doctor"(Luhrmann 2000, p. 84) by undermining the doctor's best efforts to cure. Psychologizing the patient's illness becomes a way for doctors to project this threat onto the patient by essentially declaring that the patient is to blame for the treatment failure and not the physician. 'Survivors' of psychiatric disorders, as they are called by some patient advocacy groups, are quite aware of this power struggle, and some have chosen to petition for more biological characterizations of mental illness so as to spare patients from such incrimination; "Depression is not a flaw in character. It is a flaw in chemicals." was one of the slogans used by the National Association for the Mentally Ill in a media campaign several years ago.

Weary of being seen as the black sheep of biomedicine and the speciality that deals with all the 'difficult patients,' the 'crock' cases, and those 'functional' complaints that defy all physiological explanations (Kirmayer 1988), the field of psychiatry began taking steps in recent decades to undo the mind-brain dichotomy that was plaguing it. However, as Luhrmann has suggested, instead of fostering a true integration of biological and psychological models into some new and enlightened paradigm, what occurred instead was the annexation of the field by the biological camps and the excommunication of the psychological factions.

It is the central hypothesis of this thesis that the reason why a new, enlightened and integrated paradigm for psychiatry has not been possible is because mind-brain dualism is much more than just a clash between two theoretical models or scientific camps. Following the arguments of the authors quoted above, the position taken here is that the mind-brain dichotomy expresses, within the language of

biomedicine, the innate and automatic tendency of people to make judgments of responsibility upon the actions of others, and as such reflects a very fundamental system of causal reasoning.

The cognitive science perspective

There is evidence from the social psychology literature that judgments of responsibility are a particular type of causal reasoning that comes into play automatically whenever people try to make sense of troubling events (Weiner 1995, 2001). Upon witnessing a disturbing event, it would seem that people are compelled to determine whether or not the event was caused by the actions of another person and, if so, whether that person acted intentionally. This intuitive process of reasoning is important because it allows us to know how to respond in the face of troubling events, leading us to experience anger and the desire for retribution in the case where the disturbing event was due to the intentional actions of another person, and pity and compassion in response to the unintentional, uncontrollable event (ibid). This phenomenon can be illustrated according to the algorithm in Figure 1.1. This model predicts that when observers witness a disturbing event caused by a certain person, if the observers believe that the person was in control of his actions when he caused the event, then they will also conclude that he intended to cause the event, they will hold him responsible for it, and they will attach blame and a desire for retribution to him. Exceptions to this rule occur in cases where there is negligence or mitigating circumstances; negligence refers to instances where the person intentionally caused the event without anticipating the full consequences of their actions, while mitigating circumstances include occasions where the person caused the problematic event because it was the necessary cost for achieving a greater good. Explicit in this model is the notion that these judgments of responsibility are based on dichotomous appraisals, such as whether or not the person caused the troubling event, whether or not they were capable of controlling their actions, and whether or not there were mitigating circumstances. While the end result of this reasoning process may yield

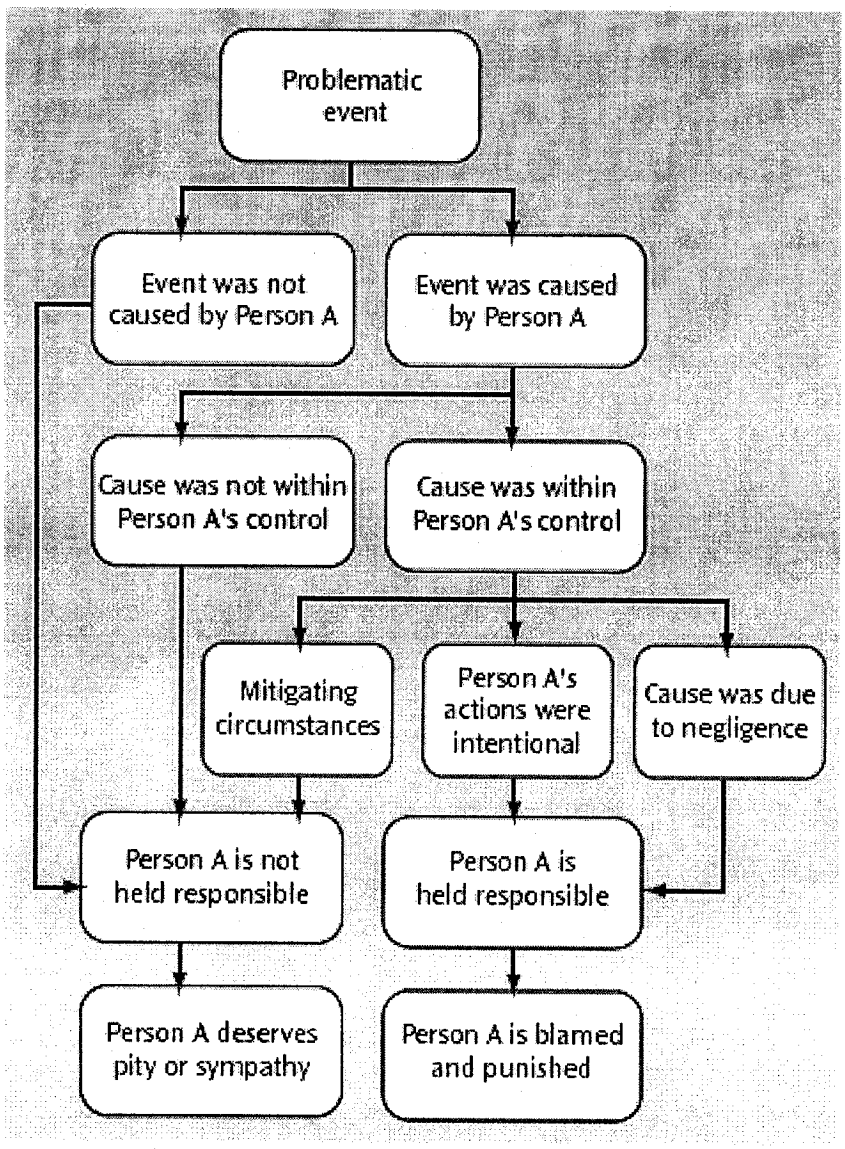

Figure 1.1 **Judgment of responsibility algorithm** (adapted with permission, Guilford Publications, Inc. © 1995)
Mitigating circumstances include such possibilities as Person A being coerced, being incapable of appreciating the wrongfulness of their actions, or causing the problematic event in order to achieve a greater good (Weiner 1995).

judgments that fall along a continuum of responsibility, it seems that one cannot escape this series of dichotomous decisions (Weiner 1995).

The tendency to dichotomize judgments in this way may stem from an even more basic set of cognitive systems that guides human reasoning. Developmental psychologists have shown that as early as the first year of life infants demonstrate the

ability to differentiate between animate beings and inanimate objects (Premack 1990; Legerstee 1991, 1992; Blakemore and Decety 2001), and they seem to understand others and themselves as agents that make things happen, associating goal-directed behaviour with humans and not with inanimate objects (Legerstee 1992; Spelke et al. 1995; Woodward 1999; Woodward et al. 2001). Developmental psychologists thus speak of cognitive systems mediating a "naïve" or "intuitive physics," and an "intuitive psychology," and argue that from a very early age we divide the world according to things with and without agency, using different intuitive laws to predict these perceptually different phenomena. It appears that in infancy, one of the main criteria for differentiating between these two states is that a physical action is one that is brought about by an external force or cause, whereas an intentional action is motivated by an internal cause (Premack and Premack 1995):

External Cause → Physical Action
(*Intuitive Physics*)

vs. (Eq. 1.1)

Internal/Psychological Cause → Intentional Action
(*Intuitive Psychology*)

Sometime in the second year of life, children's intuitive psychology evolves and they begin to appreciate the nature of these internal, psychological causes: they understand that other people can have intentions and ideas about things, meaning that others can be interested in an object in the environment, think about it, and refer to it, implying, in a sense, that others can hold a representation of the object within their minds (Tomasello 1999; Povinelli 2001). This is the beginning of children's capacity for holding a theory of mind about other people and also of themselves.

Somewhere between ages 2-4, children's theory of mind abilities progress to the point where they begin to see that intentional states are determined by a person's beliefs and desires (Wellman and Phillips 2001; Moses 2001). In other words, these

children begin to understand that when another person is acting intentionally, it is because they hold a desire for a particular outcome, as well as a belief that their actions can fulfill their desired goal. This development can be represented as the following (Malle 1999):

Cause → Unintentional Action
(*Intuitive Physics*)

vs. (Eq. 1.2)

Reasons (beliefs and desires) → Intention → Intentional Action
(*Intuitive Psychology*)

This step is significant, for not only does the child now have a means of representing other people's internal psychological states, he or she can also consider that people might exhibit unintentional actions that were caused by external, physical forces and that had nothing to do with their particular desires or beliefs. Children at this point thus begin to see people not only as intentional agents, but also as having properties of material objects. This parallels a development among children at this stage to begin to think according to naïve theories of biology (Inagaki 1997, Wellman et al. 1997), and to be able to differentiate between intentional actions, mistakes, biological reflexes, and physical occurrences involving humans (Schult and Wellman 1997).

As children grow older and take on more adult-like capacities for causal cognition and theory of mind, two further developments take place. Firstly, sociocultural factors become important in shaping some of the subtler ways in which intentionality is perceived, such as in determining whether agency might be attributed to certain classes of people or even certain social groups and collective bodies (Ames et al. 2001).

Secondly, as people's Theory of Mind capacities become increasingly sophisticated, they begin to use more complex forms of causal reasoning to understand the roots of intentional actions. Social psychology research has found that

adults go beyond the simple, momentary reasons (beliefs and desires) when interpreting an intentional action, and invoke "causal history factors" and "enabling factors" (Malle 1999) in their interpretations. Causal history factors help to explain the origins and context of the intention by citing more general and more enduring factors that may have led to a person's particular desires or beliefs in a certain situation. For example, causal history factors can make reference to such things as a person's personality traits, social background, or events in their past to explain why they had certain desires or beliefs that prompted them to act in a particular way.

Enabling factors refer to such things as the agent's skills, efforts, opportunities, or to particular faciliators or barriers, which made the action more likely to be accomplished by the agent. It is thus possible to expand the algorithm for intentional action as follows (Malle 1999):

Reasons → Intention → Intentional action
↑ ↑
Causal History Factors Enabling Factors (Eq. 1.3)

The role of causal history factors in explaining actions is an important point to clarify. As described up to this point, they would seem to be relevant only for the causal reasoning about intentional actions. That is, one could infer that when people use causal history factors to explain an action, they are by definition viewing that action as having been intentional, and thus that causal history factors are simply more sophisticated forms of reasons to explain intentions (Malle 1999). In cases of benign or morally neutral events, this logic indeed seems to hold. For example, consider the phrase: "Anne invited Ben for lunch because she is outgoing." Most observers would view Anne's behaviour as having been intentional, and the evidence to support this would be nothing other than the causal history factor of her being an outgoing individual (Malle 1999). The implicit but obvious meaning of this phrase is that,

because Anne is an outgoing individual, she intentionally invited Ben for lunch so as to satisfy her desire for a social interaction.

However, a very different form of causal reasoning takes place when the goal is to understand troubling and morally problematic events. In these cases, it is as if our reasoning process regresses back to a more simplistic form where it is now the causal history factor that is judged to have been either an external cause or an internal/psychological reason (See Eq. 1.1). This particular from of reasoning is nothing other than the judgements of responsibility algorithm (Weiner 1995, 2001) introduced above. Consider the example, "Anne stabbed Ben at lunch because she was overcome by her passions." Here again, the only explanation given for Anne's behaviour is a causal history factor, namely that she was overcome by her passions. Yet because this is a troubling event, people's automatic attempt to determine if Anne acted intentionally takes on the additional goal of judging whether she is responsible for the crime, and to accomplish this they reason according to the algorithm in Figure 1.1. In this case, because we know that Anne caused the problematic event, the first real question becomes whether Anne's action of stabbing Ben was under her control. If the answer is yes, then it follows that this action was intentional (leaving, for the moment, the possibilities of negligence or mitigating circumstances, which are remote and in this case would not seem to apply), and that Anne is therefore responsible and blameworthy. If the answer is no, then Anne would not be considered responsible, and, importantly, she would not have been viewed as having acted intentionally, for as shown above, intentional events follow only from internal, psychological causes and not when the cause is external to the agency of the person and beyond their control.

The only task that remains at this point is for the observer to decide whether or not being overcome by her passions was, for Anne, a situation that was beyond her control. It is exactly this decision point that rests the crux of the present thesis, for it is at this point that the mind-brain dichotomy becomes a crucial and inescapable valuation. If one understands Anne's passions as being the result of chemical imbalances, genetic programs, a brain tumour perhaps, or any other 'biological' process, then Anne's behaviours could be seen as having been caused by physical

events that were external to her sphere of control. On the other hand, to view her passions as being seated within her internal, psychological make-up, connected to her particular drives and attitudes, and no different in essence from any of her other emotions that are elicited by certain cues but that are ultimately under her control, is to see Anne as being accountable for her actions. Therefore, in cases of problematic behaviours where judgements of responsibility become necessary, we arrive back to the original dichotomy of attributions of intentionality (Eq. 1.1), now applied to the causal history factor:

External Causal History Factor → Physical (unintentional) Action

vs. (Eq. 1.4)

Internal/Psychological Causal History Factor → Intentional Action

Neither of these two alternative models to explain Anne's passions – whether they were 'biological' or 'psychological' – may be accurate from a scientific standpoint. Or perhaps both may hold some truth. The point here is that regardless of such fascinating theoretical quandaries, the imperative for everyday observers is to make a judgement on Anne's responsibility for her behaviour so that they can know how to respond to her actions: either with pity and support for Anne, or with anger and retribution. Saying that Anne is both partially accountable and partially unaccountable for her actions is frustrating for those who are intimately involved in the case, for it then becomes more difficult to know how to react to her actions. Therefore, the more disturbing is the event in question, and the more closely implicated are the observers, the stronger will be the imperative to make a firm judgement of responsibility.

In situations where the event is brought within a medical perspective, such as in the case of Anne, observers will find themselves choosing between either a physical/biological or a psychological model to account for her actions. In line with the arguments put forward by the anthropologist of psychiatry cited above, it becomes

clear that the mind-brain dichotomy in Western medicine is, a least in part, a metaphor for a voluntary-involuntary dichotomy. As will be shown throughout this thesis, this distinction is not without good reason, for such judgements are much more than just medical diagnoses designed to inform treatment plans; they are decisions that are of vital importance within interpersonal and social contexts insofar as they help people understand how they should respond to Anne and to each other and, indeed, to their own behaviour, and how they can live together in a relatively orderly and moral fashion. Furthermore, illnesses in and of themselves are troubling events, and so it is not surprising that people tend to make judgments of responsibility when reasoning about the causes.

Some experimental evidence already exists showing that, compared to illnesses with purely physical manifestations, disorders that involve one's thoughts and behaviours tend to be viewed as more intentional and more within an individual's responsibility. Weiner demonstrated that lay adult subjects, when asked to rate various medical conditions, judged the symptoms of 'mental-behavioral' illnesses, such as obesity and drug abuse, to be more intentional, and viewed the sufferers of these conditions as more responsible and more blameworthy for their symptoms, as compared to those with 'physical' conditions such as cancer and heart disease (Weiner et al. 1988; Wiener 1995). In another study it was found that respondents' ratings of the extent to which illnesses are behavioural were correlated with how much personal responsibility, blame and social rejection they attributed to these conditions (Crandall and Moriarty 1995). As mentioned above, there is some evidence that the distinction between voluntary and involuntary forms of illness occurs across diverse cultures and leads people to blame and stigmatize those who are found responsible for their conditions (Shweder 1997).

In these studies, the focus was on examining the responses of lay persons to illness events. Yet what about the responses of professional clinicians to these same dilemmas? Given that they possess far more sophisticated conceptual models of illness processes and human behaviour than the lay public, should they not be able to transcend this dualistic mode of reasoning? Above, in the section on *The*

anthropological perspective, it was suggested that clinicians are just as prone as lay people to make judgements of responsibility in their practice. It is to this question that the focus of this thesis now turns. Firstly, results will be presented from an empirical study on mental health professionals practicing at McGill University, showing that they employ a mind-brain dichotomy to make judgements of responsibility when reasoning about clinical scenarios. Following this, the construct of alexithymia will be examined to illustrate how deeply the mind-brain dichotomy penetrates into the theoretical foundations of the field of psychiatry and into the very definition of personhood in Western culture.

Judgements of Responsibility and Mind-Brain Dualism in Mental Health Professionals' Reasoning about Clinical Scenarios

The goal of this study was to determine whether the process of making judgments of responsibility (Weiner 1995, 2001) influences the clinical reasoning of mental health professionals. The hypothesis was that this is indeed the case; that, when rating clinical vignettes, symptoms seen as being biologically determined would be associated with lower ratings of intentionality, controllability, responsibility and blame; that symptoms rated as psychological would be correlated with high ratings on these dimensions; and that ratings of biological and psychological etiology would be inversely correlated.

Methods

The sample for this study was drawn from the 270 psychiatrists and psychologists on the faculty of the McGill University Department of Psychiatry. Questionnaires were sent to faculty members, followed one month later by a second mailing. A description of the study, without explicit reference to the actual hypothesis, was included in a cover letter, and consent to participate was inferred by virtue of respondents completing and returning the questionnaire. A total of 136 faculty members responded, yielding a response rate of 50.4%. Nine questionnaires were returned incomplete and thus excluded, giving a final sample size of 127 participants.

Of these 127 participants, 60.6% were male, the average age was 52.7 (SD=11.8), 70.9% were psychiatrists and 29.1% were psychologists (see Table 2.1). Information on the ages, gender and professions (psychiatrists/ psychologist) of all 270 potential subjects was obtained in an anonymous format from the McGill University Department of Psychiatry so that a comparison of participants with non-

			Study participants (n=127)	Non-responders (n=134)	Test of difference
Age	Mean (SD)		52.7 (11.8)	52.3 (12.1)	p>.10[a]
Gender	Male	n	77	84	p>.10[b]
		% total	60.6%	62.7%	
	Female	n	50	50	p>.10[b]
		% total	39.4%	37.3%	
Profession	Psychiatrist	n	90	86	p>.10[b]
		% total	70.9%	64.2%	
	Psychologist	n	37	48	p>.10[b]
		% total	29.1%	35.8%	

Table 2.1 **Comparisons of study participants with non-responders**
(Data from the 9 excluded responders are not included)
[a] t-test
[b] chi-squared test

responders was possible. As can be seen in Table 2.1, there were no significant differences in these basic demographic factors between these two groups. Further demographic information was obtained from the participants on their past training and current practice (see Table 2.2).

Questionnaires consisted of three clinical vignettes, each followed by a similar set of question items pertaining to the vignette. At the end of the questionnaire pack was a series of questions asking for respondents' demographic information, and also a written response item that asked them to speculate on what they presumed to be the hypothesis of the study.

In terms of the actual vignettes, these were developed by crossing three common psychiatric conditions with three troubling behaviours in order to generate nine fictitious vignettes. The three conditions were: an SSRI-induced manic episode; narcissistic personality disorder; and heroin dependence. It was anticipated that the condition of the manic episode would be viewed principally as a biologically-

		N	Mean (SD)	Median	%
Training	Pharmacotherapy	93	-	-	73.2
	Psychotherapy	122	-	-	96.1
	Psychoanalysis	41	-	-	32.3
	Research	78	-	-	61.4
Current Practice (Means and medians refer to hours per week of practice)	Pharmacotherapy	89	17.0 (16.3)	13	70.1
	Psychotherapy	111	15.6 (10.0)	15	87.4
	Psychoanalysis	20	8.9 (8.6)	6.5	15.7
	Clinical research	68	10.3 (10.0)	6	53.5
	Basic science research	9	28.9 (29.6)	14	7.1

Table 2 .2 Professional profile of respondents included in the study (n=127)

determined process, that the condition of the personality disorder would be seen as psychological in nature, and that heroin dependence would fall somewhere between these two extremes. Each of these conditions was then used to provide the context for three problematic behaviours: a person spending all of his money to the point of bankruptcy; a person knowingly engaging in risky behaviour leading him to contract HIV; and a person stabbing his wife. So as to keep the vignettes consistent in all other respects, they were constructed according to a common plot with the character in each case being a man in his 30's; the conditions were not explicitly identified in the vignettes, and the phrases used were kept as similar as possible across vignettes without compromising the flow and plausibility of the stories (see Table 2.5 at end of chapter).

Questionnaire packs included only three of these vignettes, unlabelled, chosen and ordered randomly, except for the rule that each respondent saw only one of each condition and each behaviour. For example, a respondent would not receive in their

questionnaire pack two vignettes with the *mania* condition or two with the *bankruptcy* behaviour. Following each vignette, there was a uniform set of 10 questions tapping the respondent's attributions, each rated on a 7-point Likert scale (See Table 2.6 at end of chapter). Questions 1-6 assessed perceived intentionality, controllability, responsibility and blame and were borrowed directly from Wiener's model (Weiner 1995, 2001). Question 7 measuring 'competence' was included based on suggestions in the literature (Kirmayer 1994, 1998) that patients who are seen as being responsible for their own symptoms might be further stigmatized as being somehow incompetent, unintelligent, or unable to learn from their errors. Questions 8-10 assessed causal attributions to biological, psychological and social factors, respectively. At the end of the questionnaire, respondents were asked to provide demographic information and to write what hypothesis they thought the questionnaire was trying to assess.

To assess whether the order of appearance of the vignettes in the questionnaire packs had any effects on the responses, one-way repeated measures ANOVAs were conducted for each of the ten question items irrespective of the vignette type, with the order of appearance of these items in the questionnaire as the single within-subject factor. Not one of these tests yielded a significant difference at the $p<0.05$ level. Using a 5% test of significance, the power estimates ranged from 0.58 to 0.92, with six of these tests at values greater than P=0.80. Therefore, while for some of the questionnaire items the power was not adequate to reject the null hypothesis, any order effects appear to be negligible.

The first step of the data analysis examined the dimensionality of judgments of responsibility (Weiner 1995). Principle components analysis with Varimax rotation was performed on the responses to the 7 questionnaire items measuring intentionality, self-control, controllability, responsibility, compensation, blame, and competence (see Table 2.4). So as not to confound this procedure with repeated measures from respondents, three separate factor analyses were performed based on the order of appearance of vignettes in the questionnaire packs. Prior to performing the factor analyses, all variables were examined for skewness and were corrected with square-root transformations whenever the skewness statistic was greater than three

times the standard error. In no instance did skewness statistic values exceed 1.0, and because the results of the factor analyses were virtually identical with or without the transformations, only the analysis on the raw data was used. For each of these three factor analyses the main factor was then transformed into a single variable, referred to as the "Judgment-of-Responsibility (JoR)" score, by averaging the scores of the individual items of this factor. Scale analysis was performed on these JoR scores to compute Cronbach's alpha values. Pearson correlations were then performed between the JoR scores and the ratings of Biological, Psychological and Social etiology; again, these correlation analyses were performed in three separate tests based on the order of appearance of the vignettes in the questionnaire packs.

Using the data from all vignettes in one data set, multivariate repeated measures ANOVAs were performed to test whether the three conditions (*mania, narcissistic personality disorder, heroin addiction*) or the three behaviours (*bankruptcy, contracting HIV, stabbing wife*) that were described in the vignettes were associated with different mean values of the JoR score and on the items measuring Biological, Psychological and Social etiology. Post hoc analyses were performed using LSD t-tests with Bonferroni correction.

To determine whether any of the participants' demographic factors influenced their responses, values of the JoR scores and of the ratings of Biological, Psychological and Social etiology were averaged across the three vignettes for each subject, and these mean scores were used as the dependent variables for multivariate ANOVAs and ANCOVAs with the various demographic variables as the independent variables. Due to the exploratory nature of these tests, each of the demographic variables were first tested individually, and then combined into more complex models. A separate multivariate ANOVA was performed to test whether participants' awareness of the nature of the study's hypothesis influenced their ratings of the JoR scores and the scores of Biological, Psychological and Social etiology. Again, respondents' scores for these three dependent variables were averaged across their three vignettes, and the dependent variable was established by dichotomizing their written responses as to their guesses of the hypothesis into 'correct' or 'incorrect'

categories. Correct answers were those that made some reference to biological and psychological factors being juxtaposed, or to patients' responsibilities for their illnesses.

Results

When factor analysis was performed on the items rating judgments of responsibility, the items measuring intentionality, self-control, controllability, responsibility, compensation and blame loaded very highly onto one factor explaining over 50% of the variance and with eigenvalues above 3.5, termed "Judgment-of-Responsibility," while responses to the 'competence' item were nearly completely orthogonal and constituted a second factor with eigenvalues very slightly above 1.00 (see Table 2.3). These results strongly support Wiener's finding that judgments of responsibility comprise a single dimension of causal reasoning (Weiner 1995). The fact that the item on competence was orthogonal to this factor further supports this conclusion, for this item was not derived from Wiener's model.

The Judgment-of-Responsibility factors derived from these three analyses were then averaged into single variables, referred to here as the "Judgment-of-Responsibility (JoR)" score. Scale analysis revealed Cronbach's alpha values of 0.85 or above for the JoR scales derived from this factor. Pearson correlations were then determined between these JoR scores and the ratings of Biological, Psychological and Social causality (see Table 2.4). These results indicate that JoR scores were correlated in a positive direction with ratings of Psychological etiology ($r = 0.44, 0.56, 0.57$), that they were negatively correlated with ratings of Biological etiology ($r = -0.53, -0.56, -0.60$), and that ratings of Psychological etiology were also inversely correlated with Biological etiology ($r = -0.35, -0.46, -0.50$). These findings all support the study hypothesis. Ratings of Psychological etiology were correlated with scores of Social etiology ($r = 0.34, 0.40, 0.50$), and Social etiology was also correlated, albeit modestly, with ratings of JoR ($r = 0.14$ ns., $0.27, 0.31$).

	Rotated component matrix on vignettes appearing 1st (n=127)		Rotated component matrix on vignettes appearing 2nd (n=127)		Rotated component matrix on vignettes appearing 3rd (n=127)	
Item	Factor 1	Factor 2	Factor 1	Factor 2	Factor 1	Factor 2
Blame	**.894**	-.036	**.899**	.058	**.901**	-.053
Responsibility	**.859**	.038	**.897**	.074	**.939**	.052
Controllability	**.886**	.074	**.865**	.177	**.881**	.082
Self-control	**.815**	.003	**.853**	.158	**.861**	.202
Intentionality	**.575**	-.202	**.556**	-.009	**.604**	-.057
Compensation	**-.525**	-.117	**-.644**	.163	**-.608**	.337
Competence	.026	**.975**	.051	**.980**	.058	**.946**
Eigenvalue	3.594	1.014	3.859	1.010	3.950	1.063
% of variance	51.3%	14.5%	54.5%	15.0%	56.4%	15.2%
Significance	p<0.001		p<0.001		p<0.001	

Table 2.3 **Factor analysis solutions with Varimax rotation on judgment of responsibility items**
(Performed three times based on order of appearance of the vignette in respondents' questionnaire pack.)

Multivariate repeated measures ANOVAs were then performed on the pooled data set to test whether the three conditions (*mania, narcissistic personality disorder, heroin addiction*) or the three behaviors (*bankruptcy, contracting HIV, stabbing wife*) that were described in the vignettes were associated with different mean scores of JoR and of Biological, Psychological and Social etiology. In terms of the three conditions, Pillai's Trace for the multivariate analysis was significant at the p<.001 level, and highly significant differences were found among the three conditions in the mean scores of JoR ($F=147.7$, $df=2, 224$, $p<0.001$), biological etiology ($F=211.2$, $df=2, 224$, $p<0.001$), Psychological etiology ($F=89.5$, $df=2, 224$, $p<0.001$), and Social etiology

	Biological	Psychological	Social
Psychological	**-.50*[a]** **-.35*[b]** **-.46*[c]**		
Social	-.19[a] -.18[b] -.11[c]	**.40*[a]** **.50*[b]** **.34*[c]**	
JoR score	**-.56*[a]** **-.53*[b]** **-.60*[c]**	**.56*[a]** **.44*[b]** **.57*[c]**	.14[a] **.31*[b]** **.27*[c]**

Table 2.4 **Correlation matrix listing Pearson-r values**
*p<0.001
[a] analysis on vignettes appearing first in questionnaire pack
[b] analysis on vignettes appearing second in questionnaire pack
[c] analysis on vignettes appearing third in questionnaire pack

(F=32.3, df=2, 224, p<0.001). Post hoc LSD tests with Bonferroni correction revealed highly significant pair-wise differences between the three conditions in these analyses. As predicted by the hypothesis, JoR scores were lowest for the *mania* condition (mean=2.93, 95% CI: 2.67-3.18), midrange for the *addiction* condition (mean=4.72, 95% CI: 4.52-4.91) and highest for the *personality disorder* vignettes (mean=5.27, 95% CI: 5.10-5.44). Similarly, Psychological etiology was rated lowest for the *mania* condition (mean=4.01, 95% CI: 3.71-4.31), midrange for the *addiction* condition (mean=5.04, 95% CI: 4.86-5.22) and highest for the *personality disorder* cases (mean=5.90, 95% CI: 5.74-6.07). Also following the hypothesis, ratings for Biological etiology demonstrated the opposite tendency, with scores highest for the *mania* condition (mean=5.92, 95% CI: 5.75-6.09), midrange for the *addiction*

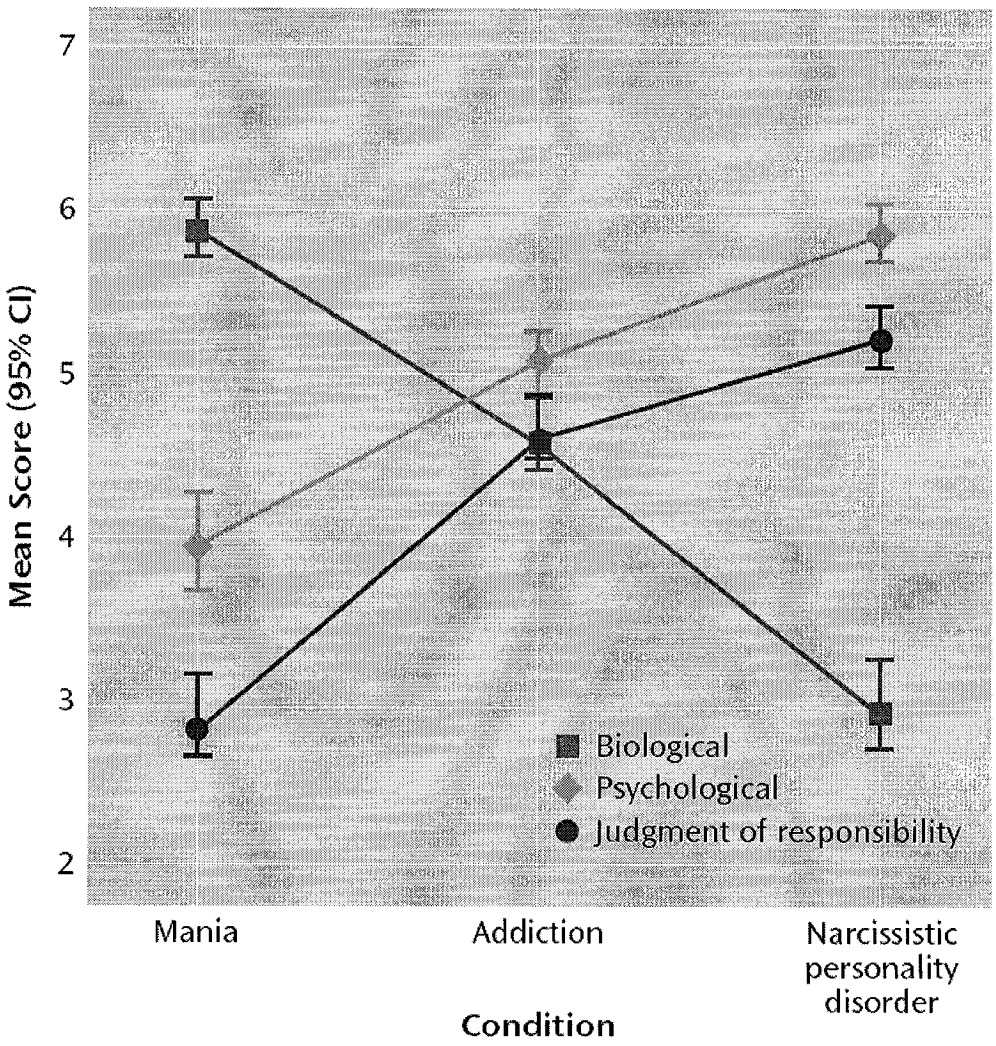

Figure 2.1 **Mean ratings of Biological, Psychological and Judgment-of-Responsibility (JoR) scores based on the condition described in the vignettes (n=127)**

vignettes (mean=4.63, 95% CI: 4.43-4.84) and lowest for the *personality disorder* cases (mean=2.94, 95% CI: 2.67-3.21). These results are illustrated in Figure 2.1. Post hoc tests on the Social etiology responses failed to show any significant

difference between the *addiction* (mean=4.62, 95% CI: 4.40-4.84) and *personality disorder* (mean=4.42, 95% CI: 4.26-4.67) conditions, though these did differ significantly ($p<0.001$) from the *mania* condition (mean=3.40, 95% CI: 3.13-3.68).

Although the multivariate analysis on the behaviour factor (*bankruptcy, contracting HIV, stabbing wife*) was also significant (Pillai's Trace $p<0.001$), only the JoR score yielded a significant effect ($F=4.9$, $df=2, 224$, $p<0.01$), and post hoc LSD tests with Bonferroni correction revealed that the only significant difference ($p<0.05$) was between the means for the *HIV* (mean=3.92, 95% CI: 3.62-4.23) and *stabbing wife* (mean=4.55, 95% CI: 4.30-4.80) behaviours.

As listed in Tables 2.1 and 2.2, the demographic variables of participants examined in this study included their ages, gender, profession (psychiatrist/ psychologist), types of training received (pharmacotherapy/ psychotherapy/ psychoanalysis/ research), and current practice (pharmacotherapy/ psychotherapy/ psychoanalysis/ clinical research/ basic science research). When multivariate analyses were performed for each of the demographic variables separately on the respondents' mean ratings of Biological, Psychological and Social etiology and JoR score, only gender was found to be significant (Pillai's Trace $p<0.01$), and only with respect to differences in the JoR score ($F=7.15$, $df=1, 111$, $p<0.01$); female respondents tended to give slightly lower JoR scores overall (mean=3.96, 95%CI: 3.76-4.16) than male respondents (mean=4.31, 95%CI: 4.15-4.47). However, when gender was combined with the other demographic variables into larger multivariate analyses, these differences no longer remained significant.

Regarding respondents' guesses of the study's hypothesis, 36.2% correctly guessed the hypothesis, for their written statements included some reference to biological and psychological factors being juxtaposed, or to patients' responsibilities for their illnesses. Nevertheless, multivariate ANOVA found no significant differences in respondents' ratings of Biological, Psychological and Social etiology and JoR score based on whether their guesses were correct or incorrect (Pillai's Trace $p=0.847$).

Discussion

The results of this study support the hypothesis that mental health professionals tend to use a mind-brain dichotomy in their reasoning about clinical vignettes, and suggest that this dualistic thinking reflects, at least in part, the implicit judgments of responsibility that they make regarding patients' symptoms. The clinicians in this study associated the psychological causation of mental illness with attributions of intentionality, controllability, responsibility and blameworthiness on the part of the patient, and they tended to view behaviours with a biological etiology as unintentional, uncontrollable, not within the patient's sphere of personal responsibility and less blameworthy. As predicted by the hypothesis, these ratings were related to the underlying conditions of the vignettes, with behaviours of different types rated as mainly biological if they occurred in the context of an SSRI-induced manic episode, as psychological if in the context of a narcissistic personality disorder, and as midway between these poles if they appeared to be due to heroin addiction.

Although the respondents made their judgements regarding fictive vignettes, the findings of the study suggest that their styles of reasoning may have very real consequences within the clinical setting. This is because, as Weiner predicts (Weiner 1995), these judgements are more than simply esoteric, intellectual concepts, but have the effect of influencing powerfully our reactions to and treatment of those whom we judge. Seeing one as responsible for a troubling event leads to important affective responses such as blame, anger, and a willingness to punish and seek retribution against the perpetrator of the act, while judging the person to be innocent drives the observer to feel pity and sympathy for the person associated with the event. It is thus very revealing that the item of 'Compensation' correlated highly with the Judgement of Responsibility (JoR) factor. This item asked respondents how much monetary support or compensation they felt the fictive patients deserved (see Table 2.6). Overall, the respondents felt that the patients whose illnesses were psychological deserved little if any compensation, whereas those with more biological illnesses deserved compensation. Withholding compensation is as much an act of retribution

as providing support is an act of pity (Weiner 1995). This finding is all the more interesting given that the actual scenario of awarding a patient compensation for having gone bankrupt or stabbing his wife during a manic episode is most unusual and not at all typical of standard psychiatric practice. Therefore, if the mental health professionals in this study were willing to consider this issue and rate it consistently, this begs the questions as to whether in other spheres of medical practice they may be all the more ready either to provide or withhold certain forms of support to patients depending on their view of how central are psychological factors in explaining the patient's symptoms.

The fact that these clinicians attributed high degrees of responsibility for pathological behaviours resulting from a personality disorder is also an interesting point to consider, given that psychiatric research and clinical experience indicate that, if anything, it is actually very difficult for patients with personality disorders to change their behaviours through conscious effort. Indeed, it is quite apparent to all clinicians working with patients with personality disorders that these disorders are as impairing and as difficult to treat or change as Axis I mood disorders, and certainly, it is hard to imagine that anyone would actually choose or intend to develop a personality disorder. That this knowledge did not seem to influence their judgements of responsibility regarding these disorders implies that that the tendency to judge patients dualistically is likely very entrenched and perhaps also separate and disconnected from other modes of clinical reasoning.

Furthermore, given that the findings of this study closely resemble the kind of reasoning found among lay populations (Weiner 1995; Weiner et al. 1998; Crandall and Moriarty 1995), that they were not affected by the respondents' level or type of professional training and background, nor even by the respondents' explicit awareness of the study's hypothesis, suggests that the results reflect persistent patterns of dualistic thinking. The finding that female respondents tended to attribute slightly lower levels of judgments of responsibility than males is intriguing and merits further research; it may suggest that there are gender differences in our intuitive patterns of

appraising intentionality and making judgements of responsibility, which may not be specific only to mental health professionals but to the population at large.

For the vignettes dealing with heroin addiction, ratings of Biological and Psychological etiology were roughly equivalent and midrange. The design of this study did not allow it to determine whether the participants held an integrated view of the neurobiological and psychological aspects of heroin addiction or whether they vacillated ambivalently between two opposing notions in tandem. However, the continuing debates in the literature about whether substance addictions are more 'biological' or 'psychological' (Kalivas 2004), combined with the fact that the ratings for the *addiction* vignettes followed precisely the predictions of the hypothesis, and that neither Psychological nor Biological etiology rated highly for this condition, favour the view that respondents vacillated between the two opposing poles.

In all of the analyses, Social etiology showed patterns of association similar to that found for Psychological etiology, though in every instance its associations were more modest statistically and more of its variance was attributable to unmeasured factors and error. It may be that some respondents viewed Social etiology as part of a broader "psychosocial" factor, while others gave a different meaning to this concept or simply viewed Social etiology as irrelevant to the clinical vignettes. This finding may have important implications for those clinicians who support a bio-psycho-social model of illness, for if the social factors are indeed relevant and different from psychological factors, then this information would need to be made more applicable for most clinicians. In addition, these findings may suggest that the tendency to view mental illnesses dualistically is persuasive enough that, with only the two poles available, the social factors tend to be lumped in with the psychological ones.

The results of this study beg the question of whether some psychiatric symptoms or disorders may indeed be more intentional or controllable than others. This question is all the more intriguing given that it does not seem to have ever been investigated empirically. In general, there may be nothing problematic about attributing greater responsibility for actions that are more volitional. Indeed, some have argued that these sorts of causal appraisals reflect evolutionary adaptations in

cognition that help us better to predict our social environments (Malle 2001, Mithen 2000), and certainly, they are quite important in negotiating everyday social and interpersonal situations (Weiner 1995). However, what remains questionable is the basis upon which the clinicians in our study viewed one psychiatric disorder as more controllable than another.

This inconsistency may be a reflection of modern science having surpassed the limits of our intuitive causal reasoning systems, similar to how modern advances in physics have put into question our intuitive understandings of the world. Our everyday conceptions of time, space and causality are supremely useful to our survival and seem to serve us well within the limits of our environment, yet modern physics has revealed just how incomplete and inaccurate are these intuitions. Similarly, advances in psychology and the neurosciences may be showing us the limits of our intuitive models of mind and brain and challenging our tendency to think dualistically. From an empirical perspective, there may be no basis for differentiating between psychological and biological processes. However, the results of this study suggest that even mental health professionals who hold an expert knowledge of these models cannot avoid reverting to dualistic impressions, so engrained are these ways of thinking.

This, in turn, may suggest that no amount of advances in the scientific understanding of behavioural disorders could ever fully supplant clinicians' tendency to employ dualistic reasoning. It is to this issue that the focus of this thesis now turns, as well as to the question of how deeply dualistic reasoning may penetrate the fields of psychology, psychiatry and biomedicine.

Mania + going bankrupt: Alex is 35 years old. Two months ago he was started on an SSRI by his family doctor, who diagnosed him with an episode of major depression. Within a few days of beginning the treatment, Alex became frenzied and overexcited. He stopped sleeping yet felt very energetic and became convinced that he had the intelligence of "Einstein." His thoughts became rapid, and he started to come up with many plans, one of them being to open a jewellery business. Within a short while he managed to go bankrupt by buying dozens of expensive gold watches, which he then gave away to strangers as a way to "promote his product."

Mania + contracting HIV: Brian is 34 years old. Two months ago he was started on an SSRI by his family doctor, who diagnosed him with an episode of major depression. Within a few days of beginning the treatment, Brian became frenzied and overexcited. He stopped sleeping yet felt very energetic and hypersexual. He also became convinced that he had supernatural powers that enabled him to cure people with HIV by having sex with them. Within a few days he managed to meet several people with HIV and he had unprotected sex with all of them. He has since been diagnosed with HIV.

Mania + stabbing wife: Carl is 36 years old. Two months ago he was started on an SSRI by his family doctor, who diagnosed him with an episode of major depression. Within a few days of beginning the treatment, Carl became frenzied and overexcited. He stopped sleeping yet felt very energetic, irritable and apprehensive. He also became convinced that his wife was an impostor. When she started demanding that he go back to see his doctor, he became enraged and threw a knife at her, stabbing her in the leg.

Personality disorder + going bankrupt: Dave is 37 years old. He prides himself on being extremely intelligent and important, and finds it crucial to present himself as rich and successful and to associate with people of "high calibre." However, he has never been able to maintain a job for very long because he always finds his employers to be "incompetent," and he refuses to heed their suggestions. As a result, he does not earn much money and secretly he feels angry, empty and degraded. Three months ago he met Allan - the CEO of a large company - at a fitness club, and they became friends. Within a short while Dave managed to go bankrupt by spending all his money on expensive dinners with Allan and on joining Allan's golf club.

Personality disorder + contracting HIV: Ethan is 35 years old. He prides himself on being extremely intelligent and important, and finds it crucial to have a very attractive woman as a partner so that others can witness his success. However, he has had only a few short-lived relationships in his life, and thus

Table 2.5 **Vignettes used in the questionnaires**
(In the actual questionnaires the vignettes were not labelled)

secretly feels angry, lonely and degraded. Three months ago he met Helen, a beautiful woman who used to be a model. She told Ethan that she is HIV positive, but that she loves him and finds him extremely attractive and intelligent. He then promised to "honour her" make her his "Queen." They have since had unprotected sex on many occasions, and Ethan has now been diagnosed with HIV.

Personality disorder + stabbing wife: Frank is 39 years old. He prides himself on being extremely intelligent and important, and finds it crucial to present himself as rich and successful and to associate with people of "high calibre." However, he has never been able to maintain a job for very long because he always finds his employers to be "incompetent" and he refuses to heed their suggestions. As a result, he does not earn much money, and secretly he feels angry, empty and degraded. Last week Frank and his wife got into a big argument, and she accused him of being a "fake" and a "loser" who will "never amount to anything." Enraged, he threw a knife at her, stabbing her in the leg.

Addiction + going bankrupt: Gary is 36 years old. For the past four years he has been a regular IV heroin user, and he has come to experience intense cravings and withdrawal at the times when he reduces his use. Two months ago he lost his job, but continued his use of heroin. Within a short while he managed to go bankrupt by spending all of his savings in order to support his habit.

Addiction + contracting HIV: Henry is 34 years old. For the past four years he has been a regular IV heroin user, and he has come to experience intense cravings and withdrawal at the times when he reduces his use. Two months ago he lost his job and ran out of money, and then for several days he was unable to buy any heroin and began to go into withdrawal. He then met up with his friend Sandra, who also uses heroin and who is known in their circle for being HIV positive. She offered Henry to share a needle, and he agreed. He has since been diagnosed with HIV.

Addiction + stabbing wife: Ian is 37 years old. For the past four years he has been a regular IV heroin user, and he has come to experience intense cravings and withdrawal at the times when he reduces his use. Two months ago he lost his job and ran out of money, and then for several days he was unable to buy any heroin and began to go into withdrawal. He then asked his wife to lend him some money, but she refused. Enraged, he threw a knife at her, stabbing her in the leg.

Table 2.5 **Vignettes used in the questionnaires (*continued*)**
(In the actual questionnaires the vignettes were not labelled)

1) Did Alex intentionally go bankrupt?[a] *(Intentionality)*
2) Could Alex have stopped himself from going bankrupt?[a] *(Self-Control)*
3) Is Alex to be held responsible for going bankrupt?[a] *(Responsibility)*
4) Were the causes of Alex's bankruptcy under his control?[a] *(Controllability)*
5) How much monetary support or compensation does Alex deserve to help him out now?[b] *(Compensation)*
6) How much is Alex to blame for going bankrupt?[c] *(Blame)*
7) Do you think Alex might learn from this experience to avoid similar events in the future?[a] *(Competence)*
8) How important are neurobiological factors in explaining why Alex went bankrupt?[c] *(Biological etiology)*
9) How important are psychological factors in explaining why Alex went bankrupt?[c] *(Psychological etiology)*
10) How important are social factors in explaining why Alex went bankrupt?[c] *(Social etiology)*

Table 2.6 **Question items following each vignette**
(Here using example of Alex)
[a] Likert scale anchored on the extremes with 1=Not at all, 7=Definitely
[b] Likert scale anchored on the extremes with 1=None at all, 7=The maximum
[c] Likert scale anchored on the extremes with 1=Not at all, 7=Completely

Alexithymia, Psychological Mindedness, and the Preservation of the Individual within Biomedicine

The field of psychosomatics is dedicated to the management of somatic manifestations of mental illness. It is thus an obvious focal point for examining the theoretical and clinical modes by which psychiatry negotiates the interface between psychological and biological theories of illness. In this section, this branch of psychiatry is reviewed from an historical perspective in order to demonstrate some of the ways in which mind-brain dualism has influenced psychiatric thought and practice. It will be argued that the tendency to make dualistic judgements of responsibility over patients is rendered possible by the social power that biomedical physicians hold, which allows them to institute specific sick roles for patients to follow and thereby to have a basis for identifying deviant behaviour. Moreover, it will be argued that these sick roles are designed to preserve a Cartesian conception of the rational agency within every individual and thus to spare the individual's social realness from the threats of biomedical and psychological technologies.

Psychosomatic medicine

The psychosomatic approach to medicine arose at the beginning of the twentieth century, at around the time when "anatomo-clinical medicine" (Foucault 1973) had become firmly established in Western societies. This method, which was the forerunner to modern biomedicine, had as its great advantage the opportunity to conduct autopsies, which allowed physicians to describe diseases in terms of underlying organic pathologies as opposed to mere clusters of external signs and symptoms, which had been the state of the art up to that point. This meant that diseases could be understood according to more objective criteria that transcended the subjective reports of patients. Inevitably, this method also introduced a new category

of problems concerning those illnesses for which no clear organic, pathological correlates could be found to match the patients' complaints. Those illnesses that defied the anatomo-clinical method become objects of curiosity, frustration and suspicion (Taylor et al. 1991; Sifneos 1996).

It was not long before this new category of illness was given a name. It was dubbed, 'functional,' to describe those ailments that seemed to correspond to exaggerations or deviations of the normal functioning of the body, as opposed to bona fide 'organic' diseases where a clear pathological invading entity could be discerned. The dichotomy between functional and organic diseases was perhaps one of the first and most basic forms of mind-body dualism within biomedicine. Even though the model of functional illness was not incompatible with biological models, it nevertheless insinuated that there might be some volitional aspects to these disorders by virtue of the conspicuous lack of any hard evidence of disease at autopsy (Kirmayer 1988).

The ability of the new biomedicine to implicate patients as perpetrators of their own illnesses stemmed not only from the new anatomo-clinical perspective, but also from the considerable social power that physicians began to hold over their patients. From its inception, biomedicine was a form of state medicine, its birth driven by the utopian promises of the new modern European states to ensure the health of their populations (Foucault 1973, 1978). The new laboratories for biomedicine were the burgeoning public hospitals, where the poor of the land, indebted to their doctors for the free health care they received, became the anonymous subjects for medical observation, experimentation, and autopsy (Foucault 1973:83). This marked power differential between doctor and patient became a prominent feature of biomedicine that persists up to this day.

Parsons (1951) offers an incisive illustration of this. Biomedicine, he argued, imposes a particular code of conduct for the patient to follow. The patient is expected to relinquish his privacy and autonomy to the doctor, who assumes control over the patient's body during the course of treatment and decides what examinations and therapies to administer. The patient is expected to comply with the doctor's authority,

and in this way he shows that he is fully interested in having his disease conquered by the doctor. To the extent that he follows this sick role, the patient is said to be rational, his illness remains located within his body, and he is saved from being blamed for causing his own disease. However, any resistance on the part of the patient in complying with the doctor's authority makes him suspect in this regard (Kirmayer 1988). Suddenly, the patient is seen as conspiring with the disease process and of abusing the generosity of the physicians; suddenly, the patient's illness becomes seen as voluntary.

As was demonstrated in the second chapter of this thesis, mind and body are used as metaphors in biomedicine to disguise this more fundamental split between voluntary and involuntary illness. When one tries to understand why patients would cause their own disease, immediately there begins the process of psychologization in order to understand the patients' hidden and potentially self-destructive and anti-social motivations. Furthermore, these judgements of responsibility tend to be made by those who are in a position of power. The dilemma of the biomedical sick role is that its parameters are defined almost completely by the opinions of physicians, whose monopoly on the ability to detect and identify disease means that they claim a unique knowledge and authority regarding this domain of the patient's body and experience that the patients themselves cannot contest.

The aim of psychosomatics as it arose at the beginning of the 20th century was to account for these 'functional' illnesses from a psychological perspective and to offer treatments for these psychological problems. Beginning with syndromes known as 'conversion hysteria' – one of the original problems that led Freud to develop classical psychoanalytic theory – the field of psychosomatic medicine soon spread to include other medically unexplained diseases of the day, such as ulcerative colitis, peptic ulcer disease, migraine headaches, bronchial asthma, essential hypertension, rheumatoid arthritis and neurodermatitis. These diseases, identified by Franz Alexander (Alexander 1950), would later be referred to as the "classic" psychosomatic disorders.

The theoretical link between these various disorders was the view that they were all caused by psychological processes given that, at the time, there were no pathophysiological explanations for them. According to the psychosomatic model, emotional states could become toxic if not properly expressed or discharged (Nemiah 1977, Kirmayer 1987); held within the person but beyond conscious awareness, these passions – which were seen as being of the body (ibid) – would eventually wreak havoc upon the body from within and lead to disease. To the extent that the patients could become aware of this inner emotional life and give expression to it, talk about it, they could expel the toxins from within themselves and regain health; hence, the emphasis on talk therapy as a treatment for psychosomatic disorders. Interestingly, it is not hard to hear within this model echoes of a confessional tradition, where sin, caused by the bodily passions, must be exorcised through speech lest it corrupts the person. Indeed, some have drawn a link between confession and the talking therapies (Foucault 1978, Danziger 1997).

The conflict-deficit dichotomy

Until the middle of the twentieth century, psychosomatics operated according to the conflict model derived from Freud's theories of neurosis. Here, patients were seen as actively repressing, albeit unconsciously, an overactive inner emotional life in order to protect themselves from ever acknowledging their dark and frightening inner worlds. Psychoanalysis was thus a way of shining the light of rationality upon these dark areas, allowing the mind to regain control of the body and the passions by observing this inner world and speaking it within the security of the therapeutic space. This offered patients the hope of overcoming their illnesses and of empowering themselves by allowing their rational minds to tame their passions. Freud himself described the mood at the end of the 19th century, where "no credence was given to a hysteric about anything . . . [such a patient was] necessarily a malingerer" (Strachey 1962: 19). He thus saw himself as following in Charcot's footsteps of "restoring dignity" (ibid) to the hysteric. Psychoanalysis sought to help patients prove to

themselves and to the world that they could achieve self-mastery. But as such, psychotherapy already began with the patients in a position of culpability. It offered expiation for their state of sin through a process of confession and self-monitoring.

Despite these compassionate goals, a further problem arose with patients who could not engage in psychotherapy and rid themselves of their implied guilt. By the 1950's, the limits of the psychosomatic approach started to become apparent as patients with illnesses such as ulcerative colitis, migraine headaches or bronchial asthma were not showing improvement with psychoanalysis. In retrospect this may not seem surprising given what we now know about the etiologies of these "classic" psychosomatic disorders. Yet at the time a different hypothesis was being put forward: that, rather than psychoanalysis failing the patient, it was the patients who were failing therapy. Thus, ironically, a new sick role developed for judging the performance of psychosomatic patients, with the patients expected to adopt a psychological discourse and a curiosity for introspection regarding their conditions, and with physicians once again holding a monopoly on explicating the patients' actions and experiences. What is more, in these cases a failure on the part of the patients to perform in these psychological sick roles resulted not so much in them receiving further blame for their conditions, but in being discredited outright as deficient in their rational, intellectual capacities. That is, in lieu of Freud's conflict model there came a deficit model, which said that psychosomatic patients became ill and remained so because they simply lacked the cognitive ability to observe their inner emotional worlds and speak about these; their minds were deficient in rational power and no match for the passions that blinded them and made them ill.

Among the first psychoanalysts to propose this deficit model were Marty and de M'Uzan from what is known as the French School. They reported that most of the patients they would treat for psychosomatic illness seemed to be very concrete in their way of thinking, boring, lacking emotional awareness and any ability to explore their inner experiences. These patients seemed "empty" (Greco 2001: 477), and their style of operational thinking (la pansée opératoire) was viewed as a permanent trait that they carried. Other psychoanalysts, too, promoted the view that somatic expressions

of distress were inherently more primitive and unsophisticated than psychological idioms (Ruesch 1948).

An examination of Marty and de M'Uzan's methods is quite revealing (Cremerius 1977, Kirmayer 1987). Working with patients suffering from diseases such as migraine, urticaria, or glaucoma, these analysts would interview the patient in a public arena, in the presence of other students and doctors whom the patient had never met. These patients were invariably from lower socioeconomic classes, and they were unfamiliar with the methods and expectations of psychoanalysis. They came expecting to talk about their physical complaints with the doctor, but instead met the distant and impenetrable presence of the analyst, who remained silent throughout the interview despite the patient's attempts at conversation. That these patients did not engage in a psychological exploration of their inner selves speaks to the uneasy relationship with the doctor, the intimidating setting, their expectation to discuss their physical ailment, a misunderstanding of the therapeutic offer, and an unfamiliarity with psychological idioms of distress due, in part, to their socio-cultural backgrounds (Cremerius 1977, Kirmayer 1987).

Still, more psychoanalysts followed Marty and de M'Uzan's idea that these psychosomatic patients had a basic inability to gain an awareness of their inner emotional worlds. In 1973, Sifneos coined the term 'alexithymia' – which literally means, 'without words for emotions' – to denote this cluster of behaviours and cognitive characteristics, thus reifying the concept. This gave rise to a vast literature on alexithymia. Scales like the Toronto Alexithymia Scale (Bagby *et al.* 1986) were developed to measure alexithymic characteristics among patients as well as people in the general public, and a negative correlation was found between alexithymia and measures of psychological mindedness (Bagby *et al.* 1986, 1988, Loiselle *et al.* 1988).

Theorists soon began to propose neuroanatomical models to explain the cognitive deficits of alexithymic patients (Taylor *et al.* 1991). Based on MacLean's idea of the 'triune brain' (MacLean 1977), the notion was raised that alexithymic patients lack certain connections between the limbic system and neocortex, thus trapping them in a mammalian, pre-human condition such that they are capable of

only pre-verbal or 'prosematic' means of communicating emotions (ibid). More recently, some have suggested that alexithymics are similar to commissurotomy patients, or, alternatively, that they are blind to their inner emotional worlds in a conceptually similar way to patients suffering from lesions in the primary visual cortex producing 'blindsight' (Lane et al. 1997).

At the level of the content, none of these neuroanatomical models have enough evidence to go beyond the hypothetical stage, but what they reveal at the process level is that the conceptualization of the psychosomatic patient came full-circle to imply once again an organic pathology. Whereas initially an organic cause was doubted by the lack of any medical evidence, in the end a neurobiological model was invoked to account for a lack of response to psychological treatment. However, this process is probably better represented as a downward spiral than a circle, for whereas initially the organic problem was posited to be in the area connected to the actual illness symptoms – a gastrointestinal problem in the ulcerative colitis patient, a lung problem in the asthmatic – by the time the French School began its work the organic problem became associated with the patient's mental faculties and with the very seat of their personhood.

If we continue with the idea that medical diagnoses imply a judgement of responsibility, then the discussion thus far regarding the evolution of the psychosomatic approach and the sick role seems to reveal an implicit algorithm used for making judgements of responsibility upon these patients in a manner similar to what was described in Figure 1.1. This reasoning process begins at the point of determining whether patients' initial symptoms are substantiated by anatomo-clinical evidence. If such evidence is found, then disease is thought to have arisen due to factors independent of the patients' will, and so long as patients then follow the standard sick role and comply with all treatments, they are spared of any blame for their condition. If such evidence is lacking, then the cause of the symptoms must rest within the sphere of the patients' willed behaviours and motivations. Morally responsible patients must then follow further steps in the sick role and undertake a process of confession and abreaction in order to expel from within themselves the

causes of their psychological illness and thereby demonstrate an ability for self-mastery and for insight into their underlying motivations. Failure to accomplish this implicates them further, either as malingerers, or worse, as persons so inept and lacking in "psychological mindedness" that they are no longer considered full persons,

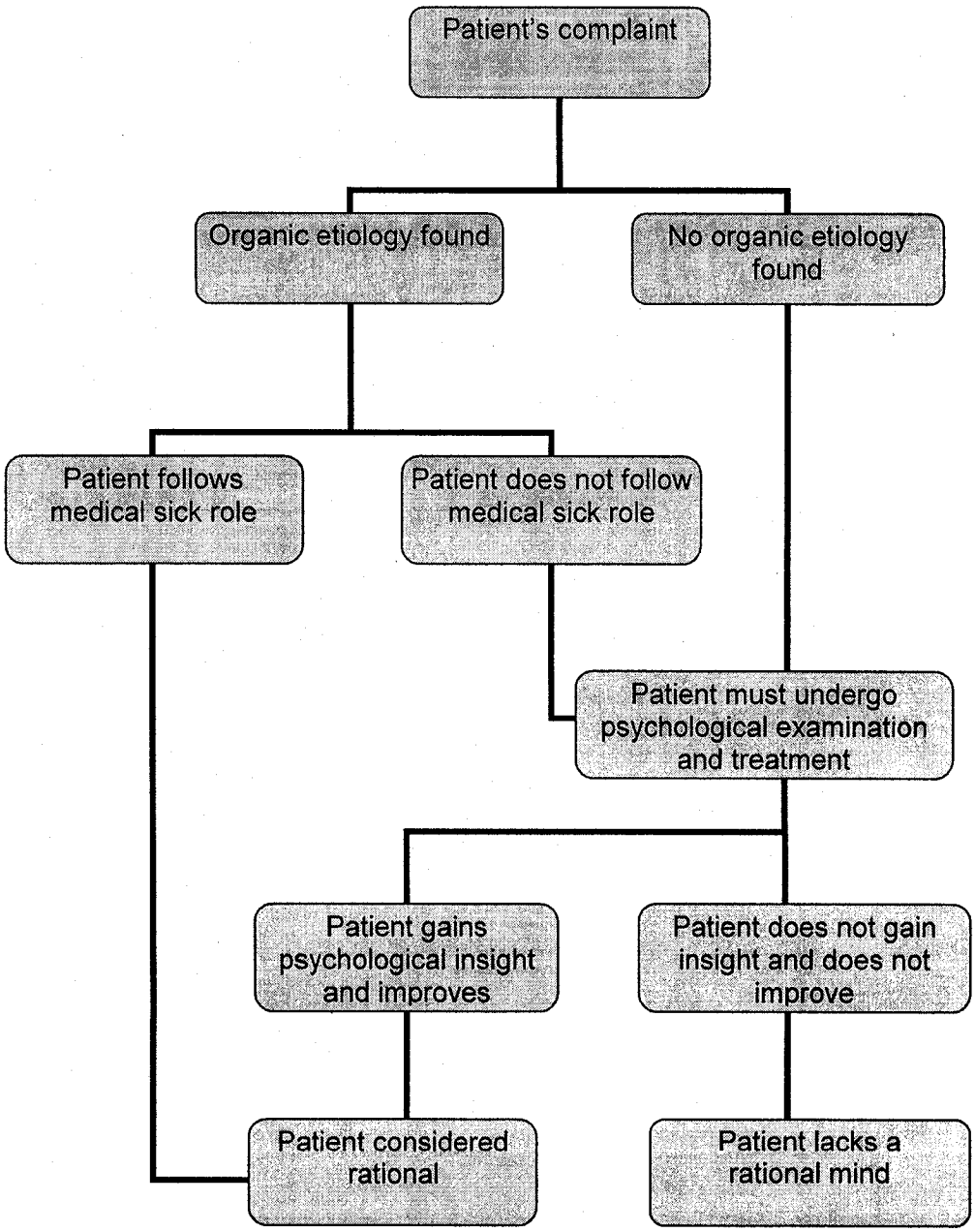

Figure 3.1 Algorithm of the biomedical and psychological sick roles.

but rather "pre-human" (Greco 2001) in some ways and with something wrong with the very biology of their brains. This process is illustrated in Figure 3.1.

The example of alexithymia and of the history of psychosomatic medicine reveals to what extent the process of judging the responsibility for patients' comportment can be based not on empirical evidence so much as the subjective appraisals of the treating physicians. The "classic" psychosomatic illnesses posited by Alexander (1950) would today all be viewed as rooted in clear-cut organic pathologies and potentially exacerbated but not caused by disturbed expressions of emotional distress. In fact, studies have shown that when it comes to physical diseases there are no links with alexithymia (Lumley et al. 1996, 1997, Cohen et al. 1994, Saarijarvi et al. 1993). Therefore, the fact that in the absence of such knowledge classical psychosomatic patients could be put on trial, accused first of causing their illnesses, and then of being deficient in their will and intelligence for being unable to undergo a psychoanalytic treatment, illustrates the potential power of biomedical physicians to use their expert knowledge in ways that, perhaps unwittingly, lead to the stigmatization of their patients. Of course, it must be remembered that this use of power was likely never motivated by a conscious intent on the part of physicians to control patients or treat them maliciously, and that it was in fact seen as a very reasonable approach to managing these conditions. It would thus appear that this type of decision-making followed certain lines that were, and may still be, parsimonious with how the culture at large would approach these sorts of dilemmas.

Psychologization vs. somatization

Although empirical studies have failed to show a link between alexithymia and the causes of physical diseases, a robust finding seems to be that alexithymia correlates with social variables, such as lower educational levels and socioeconomic status (Pasini at al. 1992, Saarijarvi et al. 1993, Joukamaa et al. 1995, Salminen et al. 1999, Borens et al. 1977, Kirmayer 1987, Cremerius 1977, Crandell et al. 1967,

Bernstein 1958), culture and ethnicity (Dion 1996, Prince 1987, Kirmayer 1987, Kleinman 1980, Leff 1973) and older age (Salminen et al. 1999, Pasini et al 1993). This would suggest that the alexithymia concept reflects a social and cultural phenomenon more than anything else. Insofar as alexithymia is often seen as a proxy measure for psychological mindedness (Bagby *et al.* 1986, 1988, Loiselle *et al.* 1988), the point then becomes that psychological discourse in general may be a phenomenon that is socially and culturally determined.

The idea that emotions and distress are understood and expressed differently among different socio-cultural groups is not new, and is the subject of a substantial literature in anthropology and cultural psychiatry. Arthur Kleinman's pioneering work in this field took him to Taiwan, where he attempted to apply Western techniques of psychiatric diagnosis and psychotherapy to people who seemed to be manifesting psychological distress (Kleinman 1980). He found that his Taiwanese patients and informants would often present with what he felt were psychological problems expressed through somatic complaints; aches and pains, weakness and fatigue were the idioms used to convey their suffering regarding family discord, feelings of loneliness or personal failure. Kleinman's attempts at talking with these patients about their feelings and emotional states were often met with resistance or disinterest on the part of the patient. Although Kleinman does not use the word 'alexithymia,' his descriptions of his patients sound similar to those of Marty and De M'Uzan's, where the patients presented with bodily symptoms that seemed to be due to psychological distress, and yet were unwilling or unable to talk about these psychological dimensions. Other psychiatrists with experiences similar to Kleinman's have indeed made reference to the concept of alexithymia (Prince 1987), and more generally, these tendencies would be viewed by Western psychiatrists as examples of 'somatization.'

Rather than see these patients as cognitively deficient, Kleinman argued that this 'alexithymia' and somatization was in large part contextual. His patients did not see any therapeutic value in speaking about their inner emotional life, anymore than a secular Westerner would hope to find relief from their suffering by consulting their

dead ancestors via a shamanic medium. Moreover, his Taiwanese patients did not possess the elaborate lexicon and cognitive schema of psychological concepts that would lead them to 'think psychologically,' and instead showed a "tendency to shift concern from the affect itself to the concrete situation that generated or is maintaining the affect" (Kleinman 1980:149).

According to Leff (1973) and others (Kirmayer 1989, Kirmayer *et al.* 1998, Prince 1987, Kleinman 1988a), 'thinking psychologically,' differentiating between subtle shades of emotions, and structuring emotional and psychological experiences into meaningful and accepted narratives, are all aspects of an expert knowledge that is quite specific to modern Western culture. Furthermore, there is evidence that a psychological knowledge may not be shared by all peoples Western; lower class Westerners, at least some fifty years ago, were found to express emotional distress more often in somatic terms (Crandell *et al.*, 1967), and to possess a less differentiated lexicon for communicating emotions (Bernstein 1958). These findings would explain the correlation between alexithymia and socioeconomic status, as well as with age, as described above. It may thus be more correct to say that psychological mindedness, at least historically, has been an expert knowledge of the higher classes of Western society.

Kirmayer (1989) shows how Western psychological mindedness rests on a particular view of the supposed structure and function of the self. Patients 'suitable for psychodynamic psychotherapy' are thought to be capable of a certain self-awareness that allows them to observe themselves and speak about themselves as if from an external, objective distance. They ought to speak about themselves as the central actor in a historicized narrative that ties together their life experiences. The act of speaking, akin to a confession, brings to the surface parts of their inner lives that had hitherto remained hidden from them. In this way, the patients affirm themselves as agents of control and responsibility by overcoming their natural tendency for self-deception. All these qualities are aspects of an imagined hyper-individualized self, which is believed to have hidden inner dimensions that are at once truer aspects of the person and also separate from the person's manifest actions (Baumeister 1987,

Danziger 1997). These qualities seem to define a sick role for the psychotherapy patient, and they also constitute an ideal of the self-aware Western individual. Clearly, other cultures do not necessarily share these assumptions, which partly explains why many highly developed societies like China, India or Japan have not adopted the expressive psychotherapies (Prince 1987), and why somatization seems to be one of the most common ways of expressing emotional distress in most 'non-Western' parts of the world (Kleinman 1988a, Kirmayer and Robbins 1991).

What has come to be known as alexithymia, then, seems to be closely tied to a style of expressing distress that is common the world over, but which has been forgotten, or rather, problematized, by biomedicine. "It is fair to ask, then, who is somatizing" (Kirmayer 1998:240), for the difficulties encountered with this phenomenon seem to be due primarily to "a failure of [biomedical] clinicians to understand and accept somatic modes of expression" (ibid). Instead of the alexithymia construct, Prince (1987) suggests, sarcastically, that we should be using labels like 'lexorrhea' or 'thymorrhea' to denote the tiny minority of psychotherapeutically oriented people who suffer from "verbal or emotional diarrhea" (Prince 1987, Stoudemire 1991).

The soul is a critical observer

Arthur Kleinman's metaphor of the 'critical observer' is a helpful way of understanding this element that patients labelled 'alexithymic' seem to lack. He writes:

> "The rationalizing powers of modern secular Western society have either created or intensified a metaself – a critical observer who watches and comments on experience. . . By internalizing a critical observer, the self . . . loses the literalness of bodily metaphors of the most intimate personal distress, accepting in their place a psychological metalanguage that has the appearance of immediacy but

> in fact distances felt experience . . . That modern construction has deepened discursive layers of experience (e.g., the cognitive competence to differentiate dysphoria into distinctive states of depression and anxiety and the linguistic competence to use emotional talk) while paradoxically making more difficult to grasp and communicate poetic, moral, and spiritual layers of the felt flow of living." (Kleinman 1988, p.50-51)

This entity, this critical, observing eye within the modern individual, is something that exists as a basic assumption within the biomedical and the psychoanalytic worldview, and which constitutes a core assumption of the biomedical and psychoanalytic sick role. Biomedicine sees the healthy, rational mind as the seat of the person within the body, the part that remains unaffected by bodily disease, that complies with medical authority and that allows the body to undergo treatment (Kirmayer 1988). Psychoanalysis also assumes that even within the disordered, suffering mind there is an essential part, called the 'observing ego,' that remains healthy, rational, and which is the therapist's ally in gaining insight and returning the person to health (Greeson 1967). What is being described here is the very essence of the individual imputed by these modernist disciplines, a core that remains rational and observes even as the rest of the body and the rest of the mind fall into disarray. Lock's examination of brain death in biomedicine (Lock 2000) leads to the similar conclusion that it is the thinking, conscious part of the person that, in Western societies, defines the essence of the individual's life and personhood. It is as if, to a Western sensibility, rationality and health, if not the essence of life itself, are conceptually linked.

This critical observer is strikingly similar to Descartes' formulation of the soul. Descartes saw the soul as the seat of rationality. According to his famous dictum, *cogito ergo sum*, the essence of who we are can be established above all by the fact that we think; because we think, we are able to perceive ourselves and know that we exist (Priest 1991). The soul was thus seen as a rational observer within the

person, the source of consciousness and the central agent of one's actions and one's body.

If, in order to be accepted as responsible citizens, people must affirm their essence via this act of rational self-observation (Kirmayer 1988), then alexithymia and somatization represent a fundamental defect in one's personhood. Lacking a capacity for psychological mindedness, alexithymics cannot critically observe themselves. In other words, they have no soul. Greco (2001) draws attention to the type of language used by the psychosomatic theorists to describe alexithymic patients: ". . . dull, lifeless, colorless . . .present, but empty . . . false self"(Greco 2001:477 and 482). Similarly, MacLean's triune brain model (MacLean 1977) has been used to depict alexithymics as operating at an animalistic, pre-human level. 'Empty,' 'lifeless,' 'false self,' 'animal' are all metaphors for soullessness. And insofar as the critical observer is seen as representing a person's potential for health, it is not surprising that alexithymia would be thought of as predisposing one to chronic illness.

To imply that someone has no soul is to undermine their social realness, status and power. It is thus not surprising that, as shown above, alexithymia was developed by therapists working with patients from low educational and income backgrounds; had their patients been of higher social status, these doctors may not have been as ready to depict them as deficient (Cremerius 1977). But it was also discussed above that lower socioeconomic groups, as well as those from 'non-Western' cultures, seem to show less psychological mindedness even within the contexts of more sympathetic therapeutic relationships (as in Kleinman's and Prince's work), as well as in non-clinical epidemiological studies. This would suggest that psychological mindedness is something of a positive form of social control, a type of expert knowledge fostered among the higher classes of Western society to bolster or defend their status.

This is precisely the argument made by those who see psychology as a 'technology of the self' (Foucault 1978, Danziger 1997, Rose 1996), as a means of socializing people into a particular way of behaving and of understanding themselves and others. As technologies of the self, psychological methods teach people to "examine aspects of themselves in such a way that the results of such an examination

would be intelligible to others"(Danziger 150). The critical observer is society's critical gaze that is internalized by every person so that they may watch themselves from within as society would watch them from without, and psychology is the language of this type of observation (Rose 1996, Danziger 1997).

The biomedical and psychological sick roles epitomize this technology of the self and the idealized role of the Western individual. Psychological discourse is the social means through which people demonstrate that they are responsible, in control, and to be reckoned with (Kirmayer 1988, Luhrmann 2000:140). By showing that we have psychological insight into ourselves, we are showing that we are able to exercise a certain level of self-control and that we thus have a certain amount of strength of character. This would explain why psychotherapists are often encouraged to undergo psychotherapy themselves, and why many (upper-middle class) people who are otherwise well would choose to undergo therapy as a form of self-improvement.

Determinism vs. free-will

Why is this positive form of control necessary? Why has Western sensibility arrived at a point where individuals must now prove and validate themselves in this way? Examining these questions brings us closer to understanding at least one of the roots of the mind-brain dichotomy in Western culture.

To begin this investigation, let us recall the discussion in the first chapter about some of the findings from developmental psychology regarding the child's intuitive models of physical and psychological phenomena. We saw that at a very early age infants demonstrate the ability to differentiate between animate and inanimate objects, and that this capacity forms the basis for their later skills at identifying intentional behaviours, for developing an intuitive psychology and an intuitive physics, and for learning how to make judgements of responsibility. This primordial dichotomy between animate and inanimate objects seems to rest upon a perception of whether the movement and behaviour of the object is self-directed or caused by external forces. Things that are alive are imputed to have an internal

agency, which is demonstrated by them behaving in ways that seem self-directed and goal-oriented, whereas inanimate objects are thought to have no internal agency and that their behaviour can be explained as the result of external forces alone (Premack 1990).

Studies have not been done to examine to what extent these ways of perceiving continue to operate within the thinking processes of adults, and whether, at some fundamental level, adults continue to hold to the assumption that an entity whose behaviour is completely predictable by describable forces is automatically discounted as an agent capable of intentionality. However, Descartes' understanding of the mind, as well as the age-old philosophical debate on determinism vs. free will, would seem to suggest that this basic notion indeed plays a powerful role in how we understand what it means to be a sentient and independent agent.

The problem is the following: if a person is nothing more than a very complex machine that is ultimately bound by predictable laws, and if the same can be said of our brains and of our minds, then how can there be any such thing as free will if all of our actions can be predicted by a set of rules? If we consider ourselves to be complex machines, then based on our intuitive reasoning this puts us in the category of inanimate objects and robs us of any humanness or personhood, for we then perceive ourselves through the lens of our intuitive physics rather than our intuitive psychology[1].

The biomedical paradigm, founded upon the anatomo-clinical method, has been a particularly powerful force in promoting a mechanistic and reductionistic view of the body, in part because its perspective arose out of the practice of the autopsy (Foucault 1973). Dead and opened on the autopsy table, the body could be viewed in its inert and decaying form as but a sophisticated system of material organs and mechanisms. The prototype of the pathological entity from this perspective is the lesion – the foreign, invading object lurking within the body: the cancerous crab

[1] It is becoming increasingly recognized that individuals suffering from Autistic Disorders face this very dilemma, for they seem to have gross deficits in their capacity for intuitive psychology, or theory of mind, and thus tend to view all living entities, including people, as biological machines since they are limited to perceiving the world according to an intuitive physics (Frith 2003).

perforating the colon or the mass of puss filling the lung. The connotation of the lesion is that it is a malicious agent separate from the person and destroying the body from within. These perspectives lend themselves to an understanding according to our intuitive physics, where everything is reduced either to objects, or to forces that bring destruction and decay and reduce life to its inert elements.

Western psychological sciences may have offered a different view than the one from the autopsy table, presenting the mind as more of a dynamic system, but in promising to predict and explicate human behaviour it too threatens the notion that we are autonomous, self-directed agents. A psychological science is thus not simply an extension of our intuitive psychology, and the two terms should not be confused. This point may seem to contradict the conclusions reached in the previous chapter, where it was shown that a psychological view of mental illness followed from the logic of our intuitive psychology. However, that study examined mental health professionals' appraisals of initial presentations of psychiatric conditions, before any treatment could take place. As the review of the history of psychosomatics has shown in this chapter, psychological technologies offer the potential for the patient to maintain a sense of control and agency regarding their condition, but only to the extent that they adopt a particular sick role wherein they work to master their inner conflicts and vices. As Figure 3.1 illustrates, when patients fail to accomplish this they lose their status as fully intentional agents.

In other words, psychological technologies can also present certain threats to our taken-for-granted notion of ourselves as social agents. As psychological science advances with increasing power to probe into the roots and mechanisms of our thoughts and behaviours, it too threatens to reduce our minds to the status of a predictable, rule-bound system. Under these conditions, it would seem that the only way for individuals to reclaim a sense of being intentional agents is to demonstrate that they can master the underlying forces that determine their behaviour. To master the complex machine that is our mind and to control it, guide it, is to once again take the position as the free-willed, living agent, the ghost in the machine, the seat of the internal decision-making process. Logically, this solution is circular and limited, for a

psychological science could then apply its gaze to this internal homunculus and explicate it, too. Nevertheless, it would seem that this is exactly the awkward logic that is being invoked when we imply that there is an essential and sublime part of ourselves – a critical observer – that transcends any rule-bounded system and that is our animate, immaterial core within an otherwise material brain and body – a ghost in the machine. This faculty rests on the premise that it can observe and understand what are the drives and forces that motivate the machine, so that it can then guide and control it. Paradoxically, in the face of a psychological science, the principal way to maintain a sense of personal agency and free-will is to demonstrate a capacity for psychological mindedness, insight and self-control, for only by owning and mastering this new technology do we neutralize its threats.

It was the genius of Descartes that he anticipated this dilemma at a time when the body was only just beginning to be understood as some sort of very complicated machine. It is as if he recognized that if the body can be explicated, so too can the mind, and that if we are indeed intentional, self-directed, animate beings then this can only be by virtue of a part of ourselves that is not bound by any physical rules, but which instead observes the machine it inhabits and controls it through thought. As such, the mind-body split can be more precisely defined as the split between this critical observer and the rest of the person – the part that sees and thinks without any predetermined and physical basis, versus the part that is seen and controlled. Under these conditions, should individuals fail to demonstrate their ability to observe and control themselves, they then forfeit that which quintessentially defines them as human, and they become seen as soulless, empty, and sub-human.

All these considerations would seem to be much more salient and pressing in a culture where the individual person is seen as the principal agent and the sole unit of intentional behaviour. This might explain why the mind-brain problem, insight-oriented psychological treatment methods, and the need to posit the existence of a critical observer are all much more central to modern Western sensibility than to other cultures. For in many other cultures, the seat of human agency tends to be in the collective as well as in the individual (Ames et al. 2001), which limits the need for a

focus on psychological mindedness given that the sublime parts of the mind can now be found outside of the individual body and within the social collective conscience (Durkheim 1973). It has been argued that in these non-Western cultures there also exists a mind-body dualism, yet these cases the mind is located within the social realm while the body encompasses the whole of the individual person (Shweder et al. 1997, Lambeck 1998).

Therefore, the mind-brain dichotomy is most likely only one facet of the larger dilemma of understanding ourselves as living beings in contrast to all that is inert or inanimate. This idea has been the central theme running throughout this thesis, and has been supported by findings from anthropology and the cognitive sciences. In this chapter, the constructs of alexithymia and psychosomatic medicine have been examined to underscore these ideas, and also to reveal an additional point: that advances in medical and psychological technologies have served, paradoxically, not to eliminate this dilemma but to bolster its salience. This is because the more fundamental, existential question of whether we are free beings or pre-determined machines still holds force and is brought increasingly to the fore with technologies that threaten to model and predict our behaviours.

Speculations on Evolving Models of Mental Illness and the Changing Landscape of Mind-Brain Dualism

It is remarkable that the need to maintain a particular conception of the self and of others – and an implicit one at that – could carry enough sway to direct the most basic elements of clinical judgement irrespective of obvious empirical considerations. Yet as this thesis has argued, this would seem to be the case regarding mind-brain dualism. Humans are endowed with intuitive causal reasoning systems that mediate our ability to interpret and predict events in our social environment as distinct from those in the physical world. These faculties allow us to negotiate our multiple environments with ease and sophistication, and they are among those capacities that distinguish humans from all other primates (Povinelli 2001). However, this thesis has suggested that there are also costs and limitations to this style of reasoning. In particular, it would seem that a precondition for preserving the credibility and realness of ourselves and others as social persons is that we must guard against reducing the essence of personal agency to the status of a mechanism via the lens of an intuitive physics. This may imply that as our scientific technologies become increasingly advanced and able to model many aspects of the world, including social ones, we must assume more subtle and covert means of refuting or ignoring these developments.

As this thesis has shown, both in the empirical study presented in the second chapter, and in the historical analysis in the third, psychiatrists and psychologists have tended to preserve these intuitive notions of the world in ways largely unacknowledged and often contrary to evidence-based knowledge. The systems of thought that they have traditionally promoted regarding the centrality of psychological mindedness and psychological discourse have perpetuated a Cartesian view of the rational, observing mind as the seat of intentionality within the individual. This has been achieved in part through the institution of the typical sick roles within

biomedicine and psychiatry, which preserve a Cartesian notion of an internal observer within the ailing person that remains impervious to organic decay. These sick roles demand that incorrect behaviour be judged and censured, and in this context psychological illnesses become viewed as voluntary and intentional. This style of judgement-making is the necessary cost of preserving the view that biological illnesses are separable from the person, and that one's personhood is separable from biological processes.

Yet despite its force and pervasiveness, the construct of the critical observer provides an unsatisfactory solution to the dilemma of preserving a sense of humanness in the face of psychological technologies. Perhaps the most obvious problem with this construct is that it is a circular one. Even though we may be endowed with a mental faculty that has the capacity to observe the rest of our thoughts and our world and to guide our behaviour, it is tenuous to assume that this faculty would not be governed by its own set of psychological rules unrelated to the rest of our biological make-up. Indeed, there are lines of research that have begun to address this very issue. Damasio (1994) has shown that purely rational decision-making is not how the human mind functions, even at a conscious level, but rather that many of our conscious decision-making capacities are made possible by virtue of somatic, physiological information – quite literally 'gut feelings' – that guide our choices among the myriad of possible actions available to us at any moment. In other words, the critical observer, if such a thing even exists, would seem to operate in large part in the service of our motivational drives and physiological reactions, rather than the reverse. This challenges the notion that any critical observer could be immune to dissection and explication.

Furthermore, clinical experience in psychiatry, as well as common sense experience, would suggest that there are many instances where insight and psychological mindedness are ineffective in preventing problematic behaviours that can nevertheless be qualified as 'psychological' and intentional. For example, people with gambling addictions may be quite aware of their self-destructive patterns and yet find themselves driven to repeat their addictive behaviours. Does this mean that they

are simply weak of character and are deficient in their agency as a person because they are locked into their addictions? If so, then who among us would not be considered at least partially weak-minded given the various vices and self-compromising patterns of behaviour to which we all find ourselves subject? If the obese person who cannot limit his food intake is seen as lacking a critical observer, then do we consider the patient with restricting Anorexia Nervosa to have an overabundance of self-control and to epitomize the responsible and individuated Western person? As Kleinman argues (1988), the concept of the critical observer, and the roles it condones, become as problematic as the situation it is trying to alleviate.

Western psychology also presents a dilemma to the notion of the critical observer when one considers the paradox of unconscious intentionality. According to the notion of unconscious thought and motivation, popularized by Freud but now accepted by most streams of psychology, human behaviour is motivated in powerful ways by intentions that are hidden from conscious awareness. The person who procrastinates at work may be retaliating in a passive-aggressive fashion against his over-demanding boss, but may not be aware of these underlying motivations. On one hand, these passive-aggressive manoeuvres would be considered intentional to the extent that they are based on particular desires and beliefs (see Eq. 1.2 in Chapter 1), in this case the desire to upset the boss, and the belief that stalling on the work will achieve this goal. However, a basic criterion for intentionality is that the agent is choosing his actions (Malle 1999, Malle et al. 2001). Unconscious intentionality is thus a paradox, for what is the meaning of choice if the choice is unconscious? How can one be said to be making a choice if one is not aware of making this choice, nor aware of the desires and beliefs informing the choice? Certainly, this phenomenon would suggest that the critical observer is not the sole or core agent of one's actions, but that the seat of intentionality and human agency can extend beyond an individual's consciousness, given that, by definition, all that is unconscious is beyond the scope and awareness of the critical observer.

The problem, then, with the construct of the critical observer is that it is offers a flawed and incomplete account of human nature, and makes for an inconsistent and problematic psychological theory. This may be because there are inherent shortcomings to a highly individualistic view of the person where the seat of human agency can only be posited to exist within the bounds of the individual. In such a context, diseases that are fully separate and dissociable from the patient's personhood and agency can be understood and managed without difficulty, but illnesses with any behavioural aspects become problematic.

Much of this thesis has argued that these shortcomings are the necessary cost of preserving certain essential conceptions of personhood and personal responsibility. However, it is interesting to speculate on whether new theories arising in the behavioural sciences, such as animal and human ethology, evolutionary psychology and attachment theory, may eventually challenge our assumptions about the individualistic nature of psychological processes and of intentionality, and provide new avenues for understanding mental illness that might, to some extent, avoid the need to differentiate between voluntary and involuntary processes or between psychological and biological causality. This speculation is rooted in Wiener's observation that, in certain circumstances, persons who intentionally commit problematic behaviours can be spared from blame and censure when their intentions can be appreciated as having some acceptable, redeemable justifications (Wiener 1995). Wiener refers to these instances as 'Mitigating Circumstances' (Figure 1.1), which include situations where a person may commit a troubling act in order to achieve a greater good, and thereby be seen as having intentionally caused the problematic event while still being spared from blame. What follows is a short overview of some of these behavioural science models as well as speculations on how they might constitute 'mitigating circumstances' according to Wiener's definition.

The attachment system in mammals is becoming increasingly recognized as a very powerful system for programming an organism's behavioural styles in ways that can persist throughout its lifespan. In rat models, it has been shown that the quality of maternal care given to pups, in the form of licking and grooming, predicts with

remarkable accuracy various behavioural styles that these pups will develop and retain well into adulthood, such as stress responsivity, aggression, impulsivity, and sexual behaviours, to name a few (Cameron et al. 2005). The kind of maternal care that they received as infants also predicts the styles of parental behaviour that they will display when they become adults nursing their own young (ibid). This process thus provides a mechanism whereby rats are able to transmit to successive generations, via stereotypic variations in maternal care, behavioural styles that are vital to the organism's adaptability within its environment. Furthermore, it has been shown that when pregnant or nursing rats are exposed to environmental stressors such as cold and damp conditions or a restricted diet, this will have the systematic effect of turning otherwise nurturing rat mothers into ones who provide poor forms of linking and grooming to their pups (ibid). If we consider that heightened stress responsivity, increasing aggressivity and impulsivity, and more promiscuous sexual behaviours may all be adaptive in environments where conditions are harsh, resources scarce, and infant mortality high, then suddenly an ingenious natural logic is revealed, where these organisms have the capacity to adapt their behavioural styles appropriately to differing environments based on how environmental stressors impact on mothers during the time when they are pregnant and raising their young.

Very similar mechanisms have been described in various other rodent species (Olazabal and Young 2005, Hennessy and Sharp 1990) as well as in primates (Suomi 2005). In fact, this pattern seems so ubiquitous across various species that ethologists and evolutionary psychologists have described two general adaptive strategies to explain this phenomenon, labelled r- and K-selections (Wilson 1975). On the one hand there is the K-selected strategy, which seems to be most adaptive for stable and plentiful environments. In such conditions, where there are greater chances that a larger percentage of the young of a certain generation will survive and thrive, it is a reasonable approach that parents would invest more of their resources into fewer offspring, given that if most will survive anyway, then those who receive a more enriched upbringing will likely hold an adaptive advantage. Therefore, high parental investment, exemplified by the high licking and grooming of rat mothers, is a feature

of K-selection. This strategy produces offspring suited to a stable environment, with more tempered stress-responsivity and affective modulations, a lower tendency for aggressive and impulsive behaviours, and more agreeable, pro-social behaviours in the case of primates. The opposite tendency is characteristic of r-selection, where in the face of a harsh and unpredictable environment with few resources, where most offspring will not survive, it is more adaptive to produce a greater number of offspring while investing fewer resources in each pup or child. Thus, parents following this strategy will be more promiscuous than their K-selected counterparts and provide poorer care to their infants. The offspring will tend to develop more aggressive and impulsive styles of behaviours, greater stress-responsivity, and to become more promiscuous and less invested parents themselves – all of which may help them and their offspring endure amidst the harsh conditions they face.

Although the theory of r/K selectivity is usually discussed in regards to differences across species (Wilson 1975), the findings from the maternal deprivations studies reviewed above are suggesting that such differences may manifest between individuals of the same species as well (personal communication, Dr. Steven Suomi and Dr. Michael Meaney). The mechanisms underlying these patterns are not simply environmental ones, for any exogenous stressor must act upon the organism's constitution and genetic predispositions to have an effect. The same environmental event may have a differential effect upon individuals with varying genetic polymorphisms, though within a species this variation will tend to fall within a specific range and a limited set of possible outcomes. This means that even within the harshest of environments there may be those individuals within a species who continue to display the K-selected strategies because they are highly predisposed to this, while in stable environments there will always be those who follow an r-selected strategy; variations in the environment simply alter the proportion of individuals adopting a particular mode of behaviour. This model suggests that what is transmitted and learned is integrally connected with what is innate, such that nature and nurture are not separable concepts (Gander 2003). It also suggests that what

motivates an individual's behaviour can include forces several levels beyond the momentary realities confronted by the individual.

These same principles seem to be predictive of human behaviour as well, especially in regards to Borderline Personality Disorder. This disorder is highly associated with childhood abuse and neglect (Paris 2003, Cohen and Crawford 2005), and it is becoming increasingly clear that these individuals hold insecure and disorganized internal working models of attachment, suggesting that they lacked sensitive and responsive parental care during their development (Fonagy and Bateman 2005). Genetic factors likely also play an important role in the etiology of this disorder (Cloninger 2005). These individuals, by definition, tend to display impulsive and often aggressive behaviours, to react in extreme ways under stress, and to be sexually promiscuous while having difficulties with intimacy and in parental roles – a profile quite consistent with an r-selection. It is plausible, then, that Borderline Personality Disorder may be a particular behavioural constellation that has adaptive advantages in certain environments (Millon and Grossman 2005).

Evolutionary arguments have been proposed for various psychiatric conditions, including depression (Price et al. 1994, Nettle 2004), anxiety disorders (Marks and Nesse 1994), and even schizophrenia (Brune 2004). These particular theories, as well as the general evolutionary psychology argument, have been criticized for being circular and flawed models, because many of them tend to invoke a kind of "reverse engineering" where a particular Palaeolithic "Environment of Evolutionary Adaptation" is posited to explain the logic for the psychological syndrome in question (Fodor 1998, Young 2003). These concerns, while very important, do not detract from the more basic model being examined here, which is that our complex behavioural tendencies may be geared for adaptive advantages in particular contexts – a premise that can be operationalized according to falsifiable hypotheses (Young 2003), and which the empirical findings reviewed above would seem to support. In other words, while the story of an "Environment of Evolutionary Adaptation" may be nothing more than a fable, the fact that certain behavioural constellation can be shown to be more adaptive within present day, known

environments, and that they arise in response to clearly identifiable environmental triggers, supports the notion that questions of adaptability are indeed salient to understanding these constellations.

The findings from maternal deprivation studies reviewed above were used simply as an example to illustrate how a particular psychiatric disorder – in this case Borderline Personality Disorder – might be understood according to an evolutionary perspective. Evolutionary arguments for other psychiatric syndromes may rely on other fields of research for their validity. Moreover, it should be stated explicitly that not all psychiatric diseases need to be explicated according to this evolutionary perspective. Epilepsy and Tertiary Syphilis were once primary psychiatric disorders, but to the extent that more discrete, organic lesions could be found to explain these disorders, they fell more into line with the standard biomedical model. Similarly, we may one day uncover the lesions that cause schizophrenia or depression and develop the technologies to eliminate these lesions, which would bring these disorders, too, more fully within the fold of the standard biomedical model. An emphasis on the adaptive qualities of certain psychiatric disorders might be interesting mainly for those cases where the illness process cannot be separated neatly from the stuff that defines and determines the patient's selfhood and personhood, which is why the example of Borderline Personality Disorder was included above.

In some ways, these conceptualizations still promote a dualistic view of disease processes, differentiating between those that can be disentangled from the socially real person from those that cannot. In fact, this dualistic view would seem to resemble closely the organic vs. functional dichotomy that arose early-on within the anatomo-clinical method, as described in the previous chapter. However, it is interesting is to consider that these new evolutionary models may make it possible to define quite explicitly what are the functions of these functional disorders, something that was not possible when the functional disorders were first postulated in biomedicine. This, in turn, could help to preserve the credibility, status and integrity of the patient, for to the extent that psychiatric conditions could be seen as representing adaptive, life-affirming functions relative to certain contexts, they would

gain a certain meaningfulness, logic and goal-directedness that would make them unlike the inanimate, inert phenomena that fall within the rubric of our intuitive physics. Furthermore, because the reasons motivating these behavioural constellations would be seen as transcending the individual agent's idiosyncratic conscious intentions, they would also no longer fall neatly within the domain of our intuitive psychology, for the agent of the problematic behaviours would no longer be solely the individual who enacted the behaviour, but also the various environmental, historical and generationally-transmitted forces that have motivated him to do so.

Instead, by returning to the algorithm illustrated in Figure 1.1, it can be suggested that psychiatric conditions understood as adaptive strategies would fall into the category of 'Mitigating Circumstances' (Weiner 1995). As mentioned above, the category of Mitigating Circumstances is convenient because it seems to be the only way according to our intuitive reasoning where a problematic behaviour can be viewed as intentional without the agent being blamed. With an evolutionary narrative to support their case, people who act impulsively, erratically, self-destructively can be said to be following a strategy that makes sense from a context to which they are suited, and so even though their actions are intentional, their goals can be appreciated as serving additional outcomes beyond the obvious results. This is the same reasoning as invoked by the maxim, "Don't judge a person until you've walked a mile in their shoes."

To summarize, ethological and evolutionary perspectives may be important to study as novel systems of conceptualizing mental illness, for they may offer new means of explaining 'functional' behavioural disorders in ways that preserve the social realness of patients' personhood while reducing the need to posit the notion of a disembodied, immaterial mind. These models may allow us to view biological, psychological and social forces are fully integrated aspects of an irreducible whole, where our biological make-up predisposes us to be maximally suited to particular environments, environmental events influence our psychology by acting upon our biological predispositions, and our psychology guides our behaviours in such a way as to maintain our adaptive advantage within a particular environment. This model also

avoids the tendency to judge whether patients are responsible for their illnesses by emphasizing the mitigating circumstances that are involved.

This model of understanding behavioural disorders may be more akin to how intentionality is judged in other cultures, where more credence is given to social factors and collective forms of agency (Ames et al. 2001). As was noted above, in these cultures questions of mind-brain dualism are much less salient as there is less expectation that the individual need be viewed as the sole and ultimate agent of his actions, and thus the sick role expectations are different. The concession is that by adopting this view, Western sensibility must relinquish some of its more extreme conceptions of individualism, such as the critical observer, that inform our sense of personhood. Should these evolutionary models continue to derive empirical support, they may indeed force a shift in Western culture's conception of the person.

This model may not be of any particular comfort to the patients suffering from psychiatric conditions who must deal with the burden of their disorders regardless of the etiology or evolutionary significance, but it may help their therapists to avoid dualistic judgements about them and in this way serve these patients by sparing them from any undue stigma or bias. As has been suggested in this thesis, both in the empirical study and in the historical analysis of psychosomatics, the ways in which physicians view the conditions of their patients likely have an important influence on how sick roles are defined, how the mind-brain dichotomy is problematized, and how treatments are delivered to the patients.

Because 'functional' psychiatric conditions, according to the evolutionary perspective, are not simply malign foreign lesions to be excised from the body, the expectation that the physician will remove or otherwise resolve these disorders while patients occupy the role of the passive, rational bystander becomes an unrealistic expectation. Instead, perhaps the model advocated by Alcoholics Anonymous and other addiction rehabilitation programs would be more appropriate, where patients are acknowledged to be sufferers of their conditions even when their overt symptoms subside, and where, because of their particular predispositions, they must accept to lead lives with certain restrictions in order to reach a state of successful symptom

control. In other words, the flip-side of eliminating mind-brain dualism, judgements of responsibility and the traditional sick roles from biomedicine is that the implicit expectations of patients and the public from biomedicine and psychiatry would also need to be revised. The complete cure or the full remission are treatment goals that only have meaning within a biomedical framework, which dissociates the disease process from the person and promises that the person can once again live apart form the disease. For the vast majority of cases where this is not possible, the goal becomes symptom management and lifestyle modification rather than cure, and both physicians and patients would be best served by avoiding expectations that exceed these limits.

The mind-brain problem, as discussed in this thesis, is truly a fascinating and profound problem that lies at the core of our ways of perceiving the world and of understanding ourselves. There is certainly much more that can be learned by continuing to explore this problem, and as biological and psychological sciences continue to advance, no doubt we will be confronted by new models that challenge our taken-for-granted, intuitive and cultural views of personhood.

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