An Enquiry Into The Psychological Meaning Of Recurrent Dreams Employing Analytical Psychology Dream Theory

Ву

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This thesis is dedicated with love to my grandfather, Guy Ezra Seeley

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Abstract

The psychological significance of recurrent dreams was explored in a multivariate comparison of recurrent, non-recurrent dreamers " on core previous y-recurrent and psychological well-being and recalled dream content dimensions. Analytical psychology dream theory was employed to generate hypotheses concerning the relationship between recurrent dreams and psychological distress or neuroticism, and the psychological health value held to associate with the resolution of a recurrent dream. Sixty-seven individuals twice completed measures assessing core psychological well-being dimensions and collected a fourteen day time-sample of their remembered dreams. \Multivariate and discriminant analyses revealed the clear separability of the comparison groups in the directions predicted by Jung. Recurrent dreamers achieved significantly less adaptive scores on the psychological well-being measures and reported significantly more conflicted and dysphoric dream content. Previously-recurrent dreamers achieved significantly higher psychological well-being scores and reported more thematically and affectively balanced dream content. The results are discussed in terms of insights afforded into the experience (and resolution) of recurrent dreams, Sand the support generated for core assertions of analytical psychology dream theory concerning the relationship between dreaming and psychological adaptation (individuation).

Résumé

Dans le but d'explorer le signification psychologique du phénomène des rêves récurrents, trois types d'individus sont étudiés ici: des individus ayant présentment des rêves récurrents; d'autres ayant eu, dans le passé, des rêves récurrents; et finalement, des individus n'ayant aucune histoire de rêves récurrents. Ces trois types de rêveurs sont comparés à l'aide d'analyses multivariées sur des mesures de bien-être psychologique ainsi que sur le contneu de leurs rêves. A partir de la théorie psychologie analytique des rêves, des hypothéses ont été formulées concernant, d'une part, la prétendue relation entre l'existence de rêves récurrents et l'experience d'un conflit psychologique et, d'autre part, l'association, suggérée par Jung, entre l'équilibre psychologique et la résolution de rêves récurrents. Soixantesept participants ont complété à deux reprises des mesures évaluant certaines dimensions de leur bien-être psychologique fondamental et ont effectué un echantillonnage temporel de quatorze jours des rêves dont ils se souvenaient. Les analyses multivariées et discriminant révèlent une nette dictinction entre les trois types de rêveurs, allant dans le sens de prédictions de Jung. Les individus ayant présentment des rêves récurrents s'avérent significativement moins bien adaptés psychologiquement et rapportent plus de contenus de rêves conflictuels et dysphoriques. Les individus ayant eu des rêves récurrents dans le passé se révèlent significativement mieux adaptés psychologiquement et rapportent des contenus de rêves plus équilibrés sur les plans thématique et affectif. Les résultants permettent de mieux comprendre les phénomènes d'expérience et de résolution de rêves récurrents. Ils supportent les éléments principaux de la théorie psychologie analytique des rêves, en particulier les assertions concernant la nature de la relation entre le rêve récurrent et la processus d'individuation (d'adaptation psychologique).

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Introduction.

Some time ago a man expressed concern about dreams he was having and his efforts to discern their meaning.

I wanted to purge away a scruple which I felt about the meaning of certain dreams. In the course of my life I have often had intimations in dreams that I should compose music. The same dream comes to me, sometimes in one form and sometimes in another but always saying the same or nearly the same words: 'Cultivate and make music', said the dream. Hitherto I had imagined this was intended only to exhort and encourage me in the study of philosophy, which has been the pursuit of my life, and is the noblest and best of 'music'...But I was not certain of this; for the dream might have meant music in the popular sense of the word and...I thought it would be safer for me to satisfy the scruple I felt, and, in obedience to the dream, to compose a few verses. (Socrates, in the Phaedo by Plato, 1952, pp.221-222.)

Such was Socrates recorded as portraying the uncertain, yet decidedly charged, relationship of individuals with their dreams. A great deal has changed in the ways of our lives in the 24 centuries since Socrates' time. Yet, Socrates' musings and apprehension about his dreams remain eloquent description of much that we continue to think and feel about our own: of the enigmatic quality so often possessing dreams; of their sometimes compelling and disquieting intrusion into our waking lives; and, of our abiding quest to accurately discern their meaning for ourselves and with respect to our current life & situations.

Socrates' remarks also reflect the puzzlement and concern often felt when one experiences a dream that occurs repeatedly, in the same or essentially the same form over a sometimes lengthy period; i.e., a recurrent dream. Socrates' attempts to derive personal meaning from his recurrent dream, to 'purge away the scruple' or apprehension he felt about it, provide a distant parallel to individuals' current efforts to understand their psychological significance.

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This is an investigation of individuals' remembered dreams. It is an attempt to provide answers to the two basic questions people have been asking of their dreams for at least four millennia. Caillois (1966) has recounted these questions as follows:

(i) What is the meaning and significance of dreams?

(ii) What is the nature of the relationship between peoples' dreams and their waking lives; and, what is their value - for the latter? (1966,pp.23,27)

The overwhelming attitude about dreams throughout fill but our current century - held by nearly all the ancient, classical, medieval, renaissance and more recent societies has been to seek an external explanation (almost invariably, deistic inspiration and/or demonic possession) for both the dream state and its 'messages', or content (Webb, 1980, Hall, 1977, Das Gupta, 1971, de Becker, 1968, Oppenheim, 1966, Von Grunebaum and Callois, 1966, McCurdy, 1946, Thorndike, 1923).

We have now moved past this external-source or 'deus-ex-machina' view of dreams and have solidly established the view that dreams possess potentially assimilable information of personal psychological significance (Freud, 1900, 1939, Jung, 1934, 1948a, b, Hall, 1953a, b, Hall and

Nordby,1972, Kramer,1969,1979, Dallett,1973, Arkin, et al., 1978, Cohen,1979, Wolman,1979).

study shall focus on the phenomenon of The present As such, its goal is to find contemporary recurrent dreams. answers to the above age-old, guestions about dreams, considered from within their now-accepted internal psychological context:

- (i) What is the meaning and personal psychological significance of recurrent dreams?
- (ii) What is the specific nature of the relationship between the resperience of a recurrent dream and current individual psychological well-being?

This research is thus specifically focused on the question of psychological meaning in the experience of a recurrent dream; and, as has been suggested in the clinical literature, whether the occurrence of a recurrent dream signifies the presence of an unresolved psychological conflict and a corresponding diminution in one's psychological well-being (Freud, 1905, Jung, 1934, Kardiner, 1947, Beck, 1961, Weiss, 1964, Hall, 1977, Mattoon, 1978, Greene, 1979).

Core Evaluative Criteria.

One cannot begin to meaningfully explore recurrent dreams and their relationship to individual psychological well-being without implicitly adopting the perspective of at least one of the existing modern (1900-) or contemporary (1970-) theories of dream function. Once acknowledged, one must define the requisite criteria a preferred theory must meet, since nearly every dream theory in the clinical applied and research literature is capable of demonstrating both its internal

theoretical consistency and at least a limited clinical utility. However, such demonstrations do not of themselves show a given theory to offer insight into the meaning and significance of dreams, into their relationship to peoples' waking selves, and thus into the psychological meaning of recurrent dreams.

Evaluative criteria are needed to establish the legitimacy of a preferred theory of dreams and dream function with respect to recurrent dreams. In this thesis the evaluative criteria are that the preferred dream theory must:

- (i.) offer clear conceptualizations of dreams, their function and key characteristics;
- (ii.) find support in the current neurophysiological and neuropsychological literature regarding both the neural underpinnings of dreams and dreaming sleep and their adaptive significance;
- (iii.) find support in the dream theory and dream content literature regarding current understanding of the relationship between dreaming and psychological adaptation;
- (iv.) find support in the theoretical and experimental literature asserting the necessary inclusion of psychological unconscious processes in any comprehensive psychological theory of the individual (including, the relationship between conscious and unconscious processes, and the role of dreams therein);
- (v.) be integrally linked within an 'operational' theory of personality (i.e., one whose core precepts find support in the current comparative 'theoretical and research literatures), positing dynamics of 'personality development, dimensions of psychological well-being, and the role of dreaming in each;
- (vi.) enable the operationalization, and empirical assessment of core theoretical hypotheses of the significance of dreaming for one's overall personality, and, one's psychological well-being;
- (vii.) address itself to the phenomenon of recurrent dreams and to their hypothesized psychological significance.

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these evaluative criteria toward the In applying selection of an appropriate theory to explore recurrent dreams it is a priori understood that existing dream theories which lack the necessary integrationist breadth and depth will be excluded. Of the handful of dream theories arguably able to meet all seven criteria analytical psychology dream theory. (Jung, 1934, 1948a, b, 1950) will be presented as particularly able to bridge the dream theory, dream content, dreaming unconscious, and personality sleep, psychological and well-being literatures. This, combined with Jung's assertions about the meaning and psychological significance of recurrent dreams make his a preferred theory with which to empirically investigate recurrent dreams, and, their hypothesized relationship to individual psychological well-being.

In the remainder of the introduction the theoretical and empirical literature addressing recurrent dreams is presented. Then, each of the five areas of theoretical and empirical literature alluded to in the above evaluative criteria (i.) to (v.) is reviewed in turn. The relationship of analytical psychological theory to each will be demonstrated. Following this an elaboration of the core tenets of analytical psychology dream and personality theory will be presented. Included will be an elaboration of how Jungian theory addresses itself to recurrent dreams. The [¬] introduction concludes with the statement of the core theoretical postulate and principal experimental hypotheses concerning recurrent dreams and their hypothesized inverse relationship to

individual ,psychological well-being.

In the method, results, and discussion sections of this thesis the research methodology and procedures are described, the subject characteristics, data-analytic techniques and results are presented, and the conclusions and implications of this research are discussed.

Recurrent Dreams.

Perhaps one of the best arguments for both dream organization and dream isolation is the recurring dream. It seems most unlikely that disorganized brain activity could produce the same dream over intervals of days, weeks, or even longer. (Rechtschaffen, 1978, p. 107).

Clinical Theoretical Literature.

There is general consensus in the clinical dream theory literature that recurrent dreams "repeatedly challenge the dreamer with the vital problems in his life, until these are confronted and solved" (Weiss, 1964, p.23). Fosshage and Loew (1978), in a comparative survey of modern and contemporary clinical dream theories note "there is agreement that recurrent dreams indicate no movement in the respective area of personality" (1978, p.255). However, the different dream theories adopt slightly different perspectives.

Classical Freudian psycho-analysis considers recurrent dreams to be traceable to an unresolved childhood trauma and to indicate that the neurotic conflict resulting from it remains consciously unresolved (Freud, 1905). Freud considered the repetition of the recurrent dream to be an expression of neurotic repetition compulsion (Freud, 1922, Cavenar and

Sullivan, 1978).

Neo-Freudian, object-relations and ego-psychology dream theorists are in essential agreement with Freud about the connection between recurrent dreams and unresolved psychological conflict, but view this connection more as one of the recurrent dream signalling "an attempt on the part of the ego bo 'master' a traumatic event (or conflict) by repetition" (Renik, 1981,p.176) (Renik, 1981, Stewart, 1967, Weiss, 1964, Silverberg, 1948).

Culturalist dream theory (cf. Bonime, 1962, Ullmann, 1979) maintains that recurrent dreams signal the absence of change or development in an important aspect of one's personality. Gestalt dream theory (Perls, 1973) asserts that recurrent dreams "point to the fact that the need fulfillment pattern, which triggered the dream, remains interrupted" (Fanz, 1978, p. 255). Gestaltists consider recurrent dreams to portray an individual's current state of psychic imbalance and, in so doing makes possible a restoration of one's psychological self-balance (Perls, 1969, Fanz, 1978).

Though discussed later in more detail, Jungian analytical psychology dream theory holds that a recurrent dream "repeats itself because it has never been properly understood, and because it is necessary for the conscious mind to reorient itself by recognizing the compensation which the dream expresses" (Jung, 1952, p. 10). Jung considers recurrent dreams to serve an eventual psychologically facilitative function in their continued presentation to ego-consciousness of psychic

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_elements that remain un- or underdeveloped (Jung, in Mattoon, 1978).

Clinical dream theorists are thus in essential agreement that a recurrent dream signals stasis or conflict in an important aspect of one's personality or "psychological development. They assert the association between the experience of a recurrent dream and the presence of an ongoing psychological conflict.

Clinical Experimental Literature.

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The clinical experimental and sleep laboratory literature addressing recurrent dreams is rather sparse, and does not include even approximate estimates of the incidence of recurrent dreams for general or specific populations. What does appear in the clinical literature is passing mention such as that by Freud that "dreams that recur periodically have often been observed" (Freud, 1900, p. 44n). Clinical researchers to date have largely attempted to assess hypothesized links recurrent dreams between and specific experiences or conditions including traumatic war experiences (Kardiner, 1947, Kardiner and Spiegel, 1947), Alzheimer's syndrome (Altschuler, Barad, Goldford, 1963), and the approach and onset of epileptic seizures (Epstein, 1967, 1973).

There is infrequent mention in the clinical literature of 'characteristic' (i.e., repetitive) themes in the reported dream content of persons suffering from depression or some other neurotic disturbance (cf. Beck, Ward, 1961, Cartwright and Romanek, 1978, Renik, 1981). With the exception of the study by

Cartwright and Romanek this literature is largely impressionistic in its description of: the predominantly negative thematic, affective and interactional content of the depressed individuals' recurrent dreams; and, the apparent temporal connection between the onset of the recurrent dream and the appearance of the psychological disturbance.

Behavior therapy (i.e., systematic desensitization) approaches have also been employed to reduce waking anxiety associated with the experience of a recurrent dream (Cavior, Deutsch, 1975, Shorkley, Himle, 1974, Silverman, Geer, 1968, Geer, Silverman, 1967).

In none of the above studies, however, has there been a clear elucidation of the nature and function of recurrent dreams, especially regarding an assessment of the modal clinical theoretical hypothesis that they "repeatedly challenge the dreamer with the vital problems in his life, until these are confronted and solved" (Weiss, 1964, p. 23).

The notion that "recurrent dreams must be particularly important dreams," (Fiss,1979,p.53), by virtue of their repeated occurrence among one's remembered dreams has recently begun to be empirically addressed. Klein, Fiss, Schollar, et.al. (1971) attempted without success to "capture" recurrent dreams experimentally by observing self-reported recurrent dreamers in the sleep laboratory. Only one recurrent dream was dreamt in the laboratory throughout the study, and that being the sole focus of the researchers they were unable to arrive at any empirically-based conclusions about the nature or

significance of recurrent dreams. Klein, et.al. did speculate that the experience of a recurrent dream "may result from a failure of (psychological) adaptation," on the part of the dreamer (Klein, Fiss, Schollar, et.al., in Fiss, 1979, p.53).

More substantive data on the recurrent (or "repetitive") dreams of normal individuals - that is, in persons not experiencing a recurrent dream subsequent to trauma (e.g., and who are from a non-psychiatric population - were war) obtained in a recent study by Cartwright and Romanek (1978). Though the methodological strength of their investigation was hindered by the retrospective method employed, Cartwright and Romanek did report data underscoring the predominantly negative affective and experiential tone of the typical recurrent dream. Cartwright and Romanek hypothesize that recurrent dreams "may be important landmarks in the defining of the self developmentally, and their recurrence indicators of issues of competence under review" (Cartwright and Romanek, 1978, p.174).

In a later paper Cartwright (1979) further develops this theme in asserting that "repetitive dreams seem to originate at different periods around points of stress...if this theme is supported in further work, the theme of a repetitive dream might be a good indicator of the characterological way in which an adult trauma (psychologicar conflict) is perceived" (Cartwright,1979,pp.135-136). Cartwright adds that the cessation of a recurrent dream may represent resolution of the conflict and "be a useful indicator" of an improved ability to

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cope with the waking situation" (Cartwright, 1979, p.136). This hypothesis regarding previously recurrent dreamers and a relative elevation in psychological well-being, first offered 30 years earlier by Jung, shall assume an important place in this research.

Dreams and Dreaming Sleep.

been just thirty years since Aserinsky and has It Kleitman discovered that, "regularly occurring periods of eye motility (i.e., rapid eye movements or REMs) are concomitant with reports of dreaming" (Aserinsky and Kleitmán, 1953, p. 273). discovery, linking objectively This observable psychophysiological markers to • the internal and heretofore-labeled 'subjective' experience ٥f dreaming supplied new objective referents to dreaming. When paired with * Freud, Jung, and the early 'depth' psychologists' work in clinical dream "theory" it effectively catalyzed the empirical study of both dreams themselves and dreaming sleep. Much has been done in these last thirty years to integrate the 'clinical' dream theorists applied-theoretical work and the 'experimental' sleep researchers' laboratory investigations into a clearer picture of what Arkin, Antrobus and Ellman call "the mind in sleep: its psychology and psychophysiology" (Arkin, Antrobus and Ellman, 1978, p.iii). These workers' efforts have done much to define and clarify what is meant when we speak of dreams and dreaming sleep and, importantly, "... to . more closely approach consensual descriptions of them (e.g., Greenberg, 1981, Fiss, 1980, Cohen, 1979, Arkin, et al.,

1978, Foulkes, 1978, Rechtschaffen, 1978, Kramer, 1969, Rechtschaffen,Kales,1968, Hall,1966). Dreams.

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Dreams are mental experiences occurring in sleep. They have been defined as "high frequency cognitive activity (occurring in sleep) with distinctive properties " (Webb and Cartwright,1978,p.237). Over the course of a night's sleep an average adult dreams at least once each 90 minutes (5-6 times) and the duration of these dreaming periods will increase over the course of the night, from c. 5-10 minutes at the end of the first 90-minute sleep cycle to c. 45 minutes at the end of the last (Cohen, 1979). As one would expect, however, the average morning recall of dreams is consistently reported as about one for every two nights' sleep (Webb and Kersey, 1967). Distinctive Properties.

The key characteristics or [distinctive properties' dreams as psychological phenomena, presented in a rather varied clinical, theoretical and experimental literature are described with a very good degree of consensus (Hall, 1982, Greenberg, 1981, Fiss;1980, Bakan,1978, Foulkes, 1978, Rechtschaffen, 1978, Webb and Cartwright, 1978, Hall, 1966, 1953). Chief the these is experience vivid, among °of symbolic-representational imagery, sometimes described as 'hallucinatory' in quality in which the dreamer is either or both active participant and observer. - Dreams are largely cognitive-perceptual experiences possessing an organizing 'dramatic' theme in dreamer usually which the feels some

measure of emotional involvement. This 'dramatic' theme organizing the structure or process of a dream usually takes a 'linear' form; that is, the individual dream 'scenes' tend toward organization about a single theme, appear as sequentially related to one another, with later dream scenes tending to follow from and build upon the former. It is usually so that when one is dreaming there is no conscious awareness of the fact; i.e., the dream experience is an all-involving one that seems to preclude the usual simultaneous sense (apparent in waking consciousness) of being self-aware. Rechtschaffen (1978), summarizing this literature lists what he calls the "distinctive psychological properties"

- of dreams:
 - (i) their bizarreness and their meaningfulness or symbolic value...many dreams are more bizarre and symbolic than most waking thought (p.97);
 - (ii) their single-mindedness, or, their strong tendency for a single train of related thoughts and images to persist over extended periods, without disruption, (p.97);
 - (iii) their thematic coherence. Dreams tend to take the form of a story...in which there is a definite chronological march of thematically connected material (p.102);
 - (iv) their absence of a reflective awareness...In dreams the reflective stream of consciousness is drastically attenuated. While we are dreaming we are usually unaware that we are dreaming... (p.98);

(v) their isolation...(In dreams) we are isolated not only from waking consciousness but ...from volitional control... stimulus input, awareness of organismic state, and motor output... (p.103).

Jung's delineation of the core descriptive characteristics dreams psychological phenomena will be shown to be in

accord with this current consensus.

Dreaming Sleep.

The reader should note at the outset the assumption here temporal, functional relationship of between а psychological phenomenon of dreaming and that particular sleep stage called REM (rapid eye movement) sleep. That is, "to proceed under the assumption that dreaming is another manifestation of processess that are normally part of the REM cycle" (Greenberg, 1981, p. 128). This is not to gainsay the literature in which are demonstrated other kinds of sleep mentation than REM dreaming; including NREM mentation (mental activity occurring in non-REM stages of sleep) (Herman, Ellman, Foulkes & Pópe,1973, Foulkes,1962), Roffwarg, 1978, and sleep-onset mentation (occurring during the first REM stage at onset of sleep) (Vogel, 1978, Pope, 1973, the Vogel, Barrowclough, Geisler, 1972, Foulkes & Vogel, 1965). It is also not intended here to debate the point regarding the degree to which NREM and sleep-onset mentation are verisimilar to REM-dreams (as characterized above).

Rather, the position taken here is to acknowledge and concordance with the greater literature express (cf. Greenberg, 1981, Cohen,1979, Webb Cartwright, 1978, Broughton, 1975, Roffwarg, Dement, Muzio, Fisher, 1962) asserting that though the boundaries between REM and NREM mentation are somewhat fuzzier than the early studies suggested (e.g. Dement,1960), they are still intact; and, "the amount of positive evidence strongly supports the idea of the

association of dreaming with REM sleep" (Greenberg, 1981,p.128).

Defining Characteristics.

As with the key psychological properties of dreams, researchers are in agreement on the defining characteristics of REM (or dreaming) sleep. A comprehensive summary appears in Cohen (1979). Included is the appearance relative to the rest of sleep (i.e., NREM sleep) of: frequent, rapid, conjugate eye movements; increased brain wave (EEG) activity like that of normal waking consciousness; increased brain oxygen and cerebral blood flow; increased appearance of neurophysiological 'phasic' events such as pontine-geniculo-occipital (PGO) spikes in cats and their apparent human equivalent, periorbital phasic integrated potentials (PIPs), and, middle ear muscular activity (MEMA); a 'paradoxical' flattening of activity in the body's gross musculature, including a lack of muscle tonus in the head and neck area (the lowest such activity levels of the entire night's sleep); increases in autonomic measures such as pulse, and blood pressure; progressively increasing respiration proportions of the night's sleep cycles (each 90 minutes long) taken up by stage-REM, from c. 10% in the first, to c. 50% in the last; and, the almost uniform recall (c. 85%) of dreams upon awakening from each REM stage, producing dream recall that is more elaborate, better organized, more vivid and more thematically continuous (i.e., more fully possessing the range of core characteristics of dreams, as consensually defined

above)(Cohen, 1979, pp. 15-24).

A noteworthy property of REM sleep is its ontogenetic development in the human being. Roffwarg, Muzio & Dement (1966), in their summary of this ontogenetic aspect, noted: in the newborn REM sleep comprises 50% of total sleep time (t.s.t.)(or, 8 hours); in the infant, 35% of t.s.t.; in later childhood, 25% of t.s.t.; throughout adolescence and most of adulthood, 22% of t.s.t.; and, in late adulthood, 15% of total sleep is spent in REM sleep (Roffwarg,Muzio,Dement,1966, pp.618-619). In contrast, the amount of Non-REM sleep holds roughly constant in sheer amount throughout the life cycle – until old age, when it declines (Fiss,1979,p.26).

REM Deprivation (REMD) Literature.

One area of rather intense research has been assessing the psychological and organismic significance of REM sleep through its experimental attenuation; i.e., REM deprivation (REMD) research (cf. Ellman, et al., 1978, Vogel, 1974, 1975, Cohen, 1979, McGrath & Cohen, 1978). While it is clear from this body of (human) REMD research that one can no longer assume isomorphism (as did early workers, e.g. Dement, 1960) between REM deprivation and dream deprivation, the REMD research is split on the psychological impact of REM

One group of workers (Ellman, et al., 1978, Hoyt and Singer, 1978, Albert, 1975, Vogel, 1975) concludes that: "REM deprivation does not produce psychological or behavioral disturbances" (Vogel, 1975, p. 749); "psychological and learning

effects of human REM deprivation have not been consistently demonstrated" (Albert, 1975, in Webb and Cartwright, 1978, p. 232); and, "the assumption that these processes (of REM deprivation) are specific to certain cognitive and imaginative psychological functions (i.e., dream deprivation) is far from demonstrated." (Hoyt and Singer, 1978, p. 509).

A second group (including Greenberg, 1981, Cohen, 1979, Cohen, et al., 1978, McGrath and Cohen, 1978, and Cartwright, et al., 1975), offers an integrated account of both the positive (i.e., REM deprivation having a psychological effect) and negative data (i.e., REM deprivation having no reasonable psychological effect). Their main argument is characterized by McGrath and Cohen,

The subsequent REMD literature suggests that simple retention of relatively the and/or personally _emotionally neutral and irrelevant learning is independent of REM sleep (and, thus not affected by REMD). However, the processing of more complex and/or emotionally valent and personally arousing (e.g., anxiety arousing, ego- threatening) material may be dependent on REM sleep (and, adversely affected by. REMD). (McGrath and Cohen, 1978, p. 52).

Though the REMD literature is far too large to be reviewed here in more than passing detail it does appear that this second group of workers better accounts for the overall REMD experimental findings. That is, they observe, "...that REM sleep is functionally related to the processing of more complex and/or emotionally valent and personally relevant information " (McGrath and Cohen, 1978, p. 54); and, that, "REM deprivation does equal deprivation of REM-associated dreaming"

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(Arkin, et al., 1978, p. 483).

Though Jung's exposition of analytical psychology dream theory antedates the discovery of REM sleep correlates of dreaming, there is the strong appearance of correspondence of the former with the latter in at least three respects. First, Jung (unlike his two contemporaries, Freud and Adler) saw dreaming as "a process...of psychological adjustment ... continuing automatically in the more or less unconscious state of sleep "(1948a, para. 469); and, that dreaming is a "most normal and most common" psychic activity (1948b, para.544). thus aligned with Jung was the current understanding of dreaming as a universal, frequently occurring phenomenon of human sleep. Second, regarding the ontogenesisof dreaming (REM) sleep Jung theorized (1928, paras. 97-99) that newborn infants are immersed in the world of, instincts, and begin their lives existing very much without eqo-consciousness (i.e., are unconscious). When coupled with his assertion that dreaming is a process whereby unconscious contents are brought into consciousness (1934, para. 330), there exists more "than a surface parallel with current knowledge that newborn infants spend 50% of their total sleep time (8 hours) in REM sleep. Third is Jung's contention that "the function of dreams amounts to a psychological adjustment, a compensation absolutely necessary for maintaining psychic equilibrium" (1948a, para.469). This is consistent with the above-mentioned conclusion from the REM deprivation research that REM (dreaming) sleep serves a necessary psychologically adaptive

function in humans.

Neurophysiological and Neuropsychological Mediators.

In this section the theoretical and experimental literature concerning neurophysiological and neuropsychological mediators of REM sleep and of the REM dreaming of process · reviewed. The implications are the neurophysiological and neuropsychological literature for the organismic and phylogenetic significance of REM sleep and dreaming are discussed. Their implications for dreaming when considered as an internal psychological process are presented. Finally, the degree of fit of analytical psychology dream theory to the prencipal conclusions of the neurophysiological and neuropsychological literatures is appraised.

REM Sleep Neurophysiology.

A necessary first step in developing a conceptual understanding of the neurophysiological ('phasic') events associated with REM sleep and REM dreaming is acknowledging that, at the neurophysiological level, sleep is not quite so neatly separated into REM and NREM stages. That is, though there are neurophysiologically 'phasic' events - including pontine-geniculo- occipital spikes', (PGOS), periorbital phasic integrated potentials (PIPs), middle ear muscular activity (MEMA), and the rapid eye movements (REMS) themselves - that occur primarily and with greater intensity during REM sleep (Cohen, 1979, pp.192-194, Benoit, Adrien, 1975, pp.30-32), they are not unique to REM sleep.

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In fact, these 'phasic' events reportedly occur. 15% of the time in NREM sleep stages (Fiss, 1980, p. 27). There is also evidence that phasic events such as MEMA and PIPs are temporally associated with REM dream and REM dream-like mentation whether or not it occurs during REM sleep (Oglivie, et al., 1982, Rechtschaffen, et al., 1972, Watson, 1972).

The temporal association of these neurophysiologically 'phasic' events with REM dream and REM dream-like mentation has prompted some researchers to eschew of the REM-NREM stage view of sleep in favor of a 'tonic-versus-phasic' sleep dichotomy (Grosser and Siegal, 1971, Molinari and Foulkes, 1969, This is argued as unwarranted considering, Moruzzi, 1963). first, the strong overlap or temporal association between the above neurophysiologically 'phasic' events and REM sleep and REM dreaming as traditionally defined (i.e., Rechtschaffen and Kales,1965, Rechtschaffen, 1978); and second, that current neurophysiological work (e.g., Fiss, 1979, Cohen, 1979, Jouvet, 1969,1975, McCarley and Hobson,1977,1979) evidences striking differences in the conceptualized neurophysiological origins (i.e., control centers) of REM and NREM sleep. However, brief consideration of this alternate sleep state dichotomy is worthwhile for the added insight it affords into where specifically dreaming occurs in sleep.

An excellent overview of the 'tonic versus phasic' sleep classification appears in Fiss (1980).

Tonic events are those electro-and neurophysiological components of sleep that are continuously maintained. They are the long-lasting chafacteristics of sleep. Examples of tonic are:

most of the EEG patterns defining the general sleep stages; EMG activation and suppression; and, brain temperature changes. Phasic events, on the other hand, are discontinuous, episodic flurries of the REM's themselves; small activity, such as: muscle twitches; cardiovascular and respiratory irregularities; periorbital phasic integrated (PIPs); potentials and, middle ear muscular activity. In short, tonic events are the stable background characteristics upon which momentary bursts of physiological activity - phasic events are intermittently superimposed. (Fiss 1980, p. 27)

Fiss argues that the specificity of the association of phasic events (particularly, PIPs) with REM and REM dreaming "may reflect a more central regulatory mechanism (for phasic events and for REM sleep) than the one presumably producing tonic events" (Fiss, 1980, p. 27). It is this notion of a specific and separate REM sleep control center that will be developed shortly in a review of the two major theoretical formulations of the neurophysiological mediators of REM sleep and REM dreaming (Jouvet, 1974, 1975, McCarley and (Hobson, 1977, 1980).

Cohen (1979) summarizes the consensus emerging from ` neurophysiological REM sleep research. First, far from being a passive organismic condition, sleep occurs because "there are areas of the brain which actively suppress wakefulness" (p.29). Second, REM and NREM sleep are qualitatively different states whose initiation is largely mediated by subcortical areas" (p.29). And third, "there is good evidence for a REM sleep (control) center" (Cohen, 1979, p.29).

There is little argument that REM sleep is initiated in the the pons...That the pons (one of the phylogenetically oldest brain structures) should play so important a role in the initiation of what otherwise appears to be a "higher" (cortical)

function makes sense in light of what is now becoming known about its role as a major relay station for the eventual integration of sensorv information that guides motor movement... visual information, which reaches the visual cortex via the lateral geniculate bodies, is relayed by the pons. The pons, in turn, relays the information to the cerebellar cortex which then relays it through the thalamus to the motor cortex... The information other sensory sources, (e.g., from auditory, tactile) follow a similar course from sensory cortex to pons, etc. Thus the pons is a major route between motor during sensory and analysis REM. (Cohen, 1979, p. 34).

Though consensus exists regarding the brain structures involved in the initiation of REM sleep, two theorists -Jouvet (1974,1975) and McCarley and Hobson (1977,1980,1981) present differing accounts of their specific mechanisms of action.

Jouvet (1965,1973,1974,1975), has proffered a 'catecholaminergic activation' model of REM sleep. Jouvet's model has essentially two components: NREM (or, 'telencephalic') sleep, which "mediates waking arousal...and is caused by inhibition descending from the cortex to the reticular activating system,"; and, REM (or, 'rhombencephalic') sleep, in which a 'rhombencephalic center activates the limbic midbrain circuit (thought to be associated with emotion), and simultaneously inhibits the reticular system" (Hall, 1977, p.79).

Cohen notes Jouvet's implication in REM sleep that "the role of the limbic system in coding information from short term (to long term) memory is consistent with data about the importance of REM dreaming in establishing long term memories that mediate adaptive (waking) behavior." (Cohen, 1979, p.29).

Jouvet has also addressed the question of the psychological significance of REM sleep and REM dreaming (Jouvet, 1973, 1974).

Perhaps paradoxical sleep (REM) represents some * form, of genotypic pattern of stimulation which remodels our brain during sleep. If this is true, nature is prevalent over nurture and serves to reorganize our higher nervous center (in REM sleep) according to some genotypic blueprint...according to this hypothesis our brains are submitted during dreaming dreaming to some coding during which archaic (or genotypic) primarily inherited serves to reorganize a kind of basic programming circuiting responsible for the inner core of so-called personality or character. (1973, p.31),

Some genetic coding could initiate the complex succession of PGO events (occurring in REM sleep). The synaptic organization of the (brain) would be subjected during REM sleep to a genetic coding... paradoxical sleep and dreaming would represent interactions between some system of genetically programmed neurons, and another system of neurons having much more plasticity. (1974, p.28).

is suggesting is that Cohen observes that "what Jouvet dreaming may be the phenomenological expression of both nature (genetic coding) and nurture (learning) mediated by 'the interaction of neuronally distinct areas." (1979,p.194) And, •that REM sleep and REM dreaming serve both from neurophysiological and psychologically adaptive ends. As will be noted when reviewing analytical psychology dream theory, Jouvet's speculations about the psychological significance of dreaming bear a striking resemblance to core tenets of Jungian dream theory.

A more recent and more neurophysiologically 'fine-tuned' model of REM sleep and REM dreaming control has been developed by McCarley and Hobson (1977,1979,1981). While concurring with

Jouvet that REM sleep and REM dreaming control lies in the pontine reticular formation (pons), McCarley and Hobson point in particular to "cells in the giganbocellular tegmental field (FTG cells) of the pontine reticular formation as the brain elements most likely to serve an 'executive' or controlling function for D-sleep (REM -sleep)" (McCarley, 1981, p.226). In constructing their 'activation-synthesis' model they noted two important facts connecting FTG cells with REM sleep: there is significant and sustained increase in FTG cell activity а during, and immediately prior to the rapid eye movements in REM sleep (Pivik, McCarley, Hobson, 1977); and, the extensive and very widespread projections of the FTG giant cells (Steriade and Hobson, 1976) make them "structurally capable of exciting other cells in widespread, areas of the brain, that is, of serving effectively as executive or output elements of the D-sleep (REM sleep) control system" (McCarley,1981,p.227). FTG cells are thus posited as possessing two of the essential characteristics necessary for the initiation, communication and coordination of REM sleep activity.

While the McCarley-Hobson model is neuroanatomically similar to Jouvet's it adds a good deal more detail about the specific modes of pontine (i.e., FTG cell) initiation and distribution of REM sleep and REM dreaming controls throughout the sleeping brain. As such, their model is considered a conceptual advance (Cohen, 1979, p. 33) beyond the earlier, catecholaminergic-REM sleep model of Jouvet, from a strictly neurophysiological perspective.

However, McCarley and Hobson defer to Jouvet (1975) for an assessment of the overall organismic and phylogenetic significance of REM sleep and REM dreaming. Specifically, they repeat his 'assertion that, "the function of D-sleep...is to organize and/or program instinctive behavior ... (and,) that dreaming may serve the function of "reprogramming" some innate behavior." (McCarley and Hobson, 1980, p.112). It should also be noted that this view of the organismic and phylogenetic significance of REM sleep and REM dreaming - i.e., that it important mediating role between instinctive serves an organismic 'programming' and current organismic state (both neurophysiological and psychological) - is shared in essence by a majority of sleep neurophysiologists (e.g., Fishbein and Gutwein, 1981, Benedetti, 1975, Bertini, 1973, Hartmann, 1973, Valatx, 1973, Molinari and Foulkes, 1969, Hernandez-Peon, 1967).) Neuropsychological Mediators.

Four areas of the neuropsychological experimental and theoretical literature have implications for REM sleep and the dreaming process: hemispheric specialization; hemispheric asymmetry during REM sleep; right hemispheric 'mediation' in REM sleep and dreaming; and, 'compensatory' right hemispheric activity during REM sleep and dreaming. One theme clearly emerging from this literature, and, developed below, is the assertion that "REM sleep provides an opportunity for relative dominance of the right hemisphere system while it is functionally disconnected from the (normally dominant) left hemisphere system...(This) cyclical ascendance in the
functioning of the right hemisphere system...may be engaged in the exercise and strengthening of psychological functions...such as creativity, ego - integration and (overall) psychic equilibrium^T (Bakan, 1978, pp. 299-301).

is strong agreement in the neuropsychological There literature (e.g., Levy, 1974, experimental -Nebes, 1973, Levy-Agresti and Sperry, 1968, Bogen and Luria,1973, Gazzaniga, 1965) that each hemisphere of the human neocortex. "has its own specialized patterns of awareness and function" (Rossi, 1977, p.33). Reviewing this 'split-brain' literature, Rossi (1977) summarized the consensual findings regarding the dichotomy of hemispheric functioning. The left cerebral hemisphere is thought to contain the brain's speech and language center, and to operate in a relatively more verbal, analytic, rational, and sequential manner. The right cerebral hemisphere is thought to contain the brain's visuo-spatial operate in a relatively more spatial, center, and to synthesizing, gestalt-perceptual, affective, metaphoric, and simultaneous-processing manner (Rossi,1977,p.33).

This apparent hemispheric specialization raises the question of inter-hemispheric dominance and executive brain control. That is, does one hemisphere appear able to exert control over the other and thus have greater control over human behavior? Workers in the area are agreed that "the left hemisphere seems to win control over the output channels most of the time" (Sperry, 1968, p. 723). The left hemisphere is thus considered to hold executive control over the expression of

the right hemisphere throughout most of normal (waking) awareness. However, this imbalance appears to reverse during the organismically circumscribed period of REM sleep.

While researchers note the cerebral hemispheres maintain a functional asymmetry during REM sleep (as in waking), they point to two major changes in its nature. First, there is sharp reduction in inter-hemispheric evidence of а communication through their primary connecting body, the corpus callosum. Bakan (1978) cites a series of studies (p.287) indicating that, compared with waking, there is a very sharp reduction in corpus callosal neuronal activity in REM sleep, even more so than is noted in NREM sleep. Second, normal waking intra-hemispheric activity levels reverse in REM giving the right 'hemisphere a sleep, brief, cyclical ascendance over the left as regards executive brain control. Bakan refers to work by Goldstein, Stoltzfus, and Gardocki (1972) and Cohen (1977) as asserting "the relatively greater activity in the right hemisphere _ during REM sleep"; and, "the right hemisphere may enjoy a special status during REM sleep (that it does not elsewise have)" (Bakan, 1978, p. 287).

What are the Specifics of this hypothesized 'mediating' role of the right cerebral hemisphere in REM sleep and the dreaming process? Several investigators (Antrobus and Ellman, 1981, Cohen, 1979, Bakan, 1978, Rossi, 1977, Galin, 1974), have arrived at essentially the same conclusion: "dreaming is constructed more from visual memory stored in the right hemisphere than from a verbal left hemisphere memory"

(Antrobus and Erlichman, 1981, p. 137). Four points are offered by these workers in support of this conclusion.

First, the appearance of "striking similarities between REM dream thought and right hemisphere thought... The mentation of both dreaming and the right hemisphere are characterized by reliance on imagery, affect, and primary process (i.e., or metaphoric symbolic - representátional) thought" (Bakan, 1978, p. 286). Second, as noted above, the right hemisphere during REM sleep is demonstrably more active, functionally autonomous and in executive control than is the case during waking awareness, or, even, in NREM sleep. Third, evidence from brain injury patients (Zangwill,1972, Newcombe, 1969, Nielsen, 1955, Humphrey and Zangwill, 1951) indicates that, consequent to injury involving areas of the right hemisphere, reports of experienced dreaming either cease or are severely reduced both in frequency and their experiential 'dream-like' quality. And, fourth, electrical brain stimulation work by Penfield and colleagues (e.g., Penfield and Perot, 1963, Penfield and Mullen,1959) demonstrated the production of 'visual experiential responses' "visual illusions' interpretive with electrical and stimulation of areas of the right cerebral hemisphere; but, that like stimulation of areas of the dominant (left) hemisphere failed to produce these responses.

Right Hemisphere 'Compensation' in REM Sleep.

The above evidence regarding increased right hemisphere activity and mediation of cognitive processes during REM sleep

raises the question whether such activity serves psychologically important 'compensatory' function. That is, does this cyclical appearance of right hemisphere mediated mentation occur in order to compensate for the usual dominance by the left? The speculative nature of this question precludes a definitive answer; yet, a growing number of investigators (Antrobus and Erlichman,1981, Cohen,1979, Bakan, 1978, Rossi, 1977, Galin, 1974) are suggesting just such a position.

As stated by Cohen (1979), REM sleep and dreaming can be seen to serve compensatory functions in two senses: REM sleep "represents [a shift towards paleocortical (i.e.] limbic) influence on cerebral function"; and, it represents "a shift towards right hemispheric influence on cognitive information processing" (1979.p.143). Cohen states that, taken together, "these results provide support for the idea that right hemisphere activity is an important feature of the REM process...(and, that) REM sleep provides the opportunity for compensatory right hemisphere processing" (pp.145,152). Cohen has also noted the appearance in the dream theoretical literature of the suggestion that dreaming "is a kind of restorative process that 'corrects' imbalances in waking (p.143). Cohen observes that of the clinically awareness" based dream theories Jung's analytical psychology dream theory particularly consistent , with the seems above-mentioned neuropsychological data on right hemisphere compensation during REM dreaming (Cohen, 1979, p. 143).

Cohen's conclusion regarding the consistency of Jungian.

dream theory with the right hemisphere-compensation data has been separately arrived at by other investigators (e.g., Prifitera,1981, Bakan,1978, Rossi,1977). With the abovementioned neurophysiological REM sleep theorists (e.g., Jouvet), these workers assert the compatibility of at least some core aspects of analytical psychology dream theory with recent neurophysiological and neuropsychological data.

Theories of Dream Function and Dream Content Literature.

Given the universality of dreaming there can be little doubt that dreams play some vital role in man's psychic economy; yet little factual basis has emerged to warrant the choice of one hypothesized function over another. Empirical evidence has been marshalled in support of each of the contemporary (dream) theories. Many are not mutually exclusive but differ primarily in emphasis, each illuminating a different aspect of the whole dreaming process. (Dallett, 1973, p.414).

The following separate reviews of contemporary dream theory and the empirical dream content literature reflect the continuing state of affairs in the area. Contemporary dream theorists continue largely to work from within a 'macro' or gross phenomenological bias in addressing dreaming as a psychological process, while dream content researchers continue to maintain a 'micro' or quantitative, situational bent. Very recently, however, there have appeared the beginnings of a rapprochment between the two perspectives with dream theorists increasingly attempting to operationalize key constructs and submit them to empirical test, and dream content researchers addressing in greater depth the theoretical implications of their 'quantitative' work

(Cohen, 1979, Fiss, 1979, Arkin, et al., 1978, Foulkes, 1978, Mattoon, 1977). This emergent 'common ground' and its potential for enhanced understanding of the dreaming process, core dimensions of dream content and their relationship to the waking individual will be discussed below. Theories of Dream Function.

Any consideration of dream theory in the modern era must needs begin with Freud (1900,1901,1917,1931,1938). Though from the contemporary dream theoretical perspective Freudian classical psycho-analytic dream theory is far removed with respect to many of its particulars, Freud alone was responsible for articulating and establishing the perspective "that meaningful psychological concerns, rather than randomly selected trivial impressions, guide the process of dream formation" (Foulkes, 1978, p.59).

Freud saw in dreams an opportunity which earlier theorists had missed: the chance to observe what the human mind does and what it is like when it is operating on its own, freed from perceptual inputs and "the imperatives of the external social order. (Foulkes, 1978, p.28).

Following a review of classical psycho-analytic dream theory the three main branches from which derive most all modern and contemporary (1970-) dream theories will be reviewed. The first branch tracing more or less directly to the classical Freudian model comprises 'drive-discharge' or 'conflict model' dream theories. The second traces its roots to work by Adler (1927,1930,1936) and encompasses 'problem-solving' and 'culturalist' dream theory. The third branch derives from Jungian or analytical psychology dream

theory and comprises the 'self-balance' or 'compensatory' dream model (Jung, 1934, 1948a, b).

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Following explication of the three essential modern and contemporary dream theoretical models, the commonalities underlying the majority and their relationship to the Jungian 'self-balance' model will be presented.

Freudian Psycho-Analytic Dream Theory.

Of the dream we know as yet only that it expresses a wish-fulfillment of the unconscious; and apparently the dominant preconscious system permits this fulfillment when it has compelled the wish to undergo certain distortions. (Freud, 1900, p. 365).

Classical psycho-analytic dream theory forms an integral part of Freud's general theory of personality, psycho-analysis, and like it was derived largely from his work with neurotic patients and analysands. Freud held dreams to dual, compromise role in psychic functioning: to play a express previously repressed instinctual wishes from the unconscious past a 'censor' (the system preconscious) into consciousness (ego), thereby releasing psychic tension that was building while the wish was being repressed; and, to protect sleep from being disturbed and thus protect the physical and psychic health of the individual by enabling expression of the repressed instinctual wish in disquised, symbolic form.

The dream is a compromise function: it is on the one hand in conformity with the ego (ego-syntonic) since it subserves the wish to sleep by draining off the stimuli which would otherwise disturb it, while on the other hand it allows to a repressed id impulse the satisfaction...of an hallucinatory wish-fulfillment. The whole process of dream-formation is under the control of the

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censorship, a control which is exercised by what is left of the forces of repression. (Freud,1938,p.813).

Classical psycho-analytic personality theory has two principal components, a 'structural' (nee 'topographic') model 'economic' model (Freud, 1900, 1923, 1932). The and an first 'structural' model describes Freud's structural organization of the psyche: ego, or conscious awareness; id, or the unconscious repository of the repressed instincts (or, drives or wishes); and super-ego or 'ego-ideal' which mediates and serves as a censor between id and eqo. The 'economic' model describes Freud's dynamic organization of the psyche: the id, following the pleasure principle, seeks perpetual gratification of its impulses (repressed instinctual wishes) through their release into ego consciousness; the ego, functioning in a largely defensive mode, represses from consciousness any material inconsistent with or threatening' its self-image; the super-ego counter functions to the influence of the id on the ego by expressing 'ego-ideal' material (i.e., societal mores, values and taboos as imparted to the child by the parents), and by functioning to 'censor' or transform threatening id-material into a form acceptable to the eqo.

The major role of dreams in classical psycho-analytic personality theory is in their allowing the 'safe' discharge of instinctual (id) drives by transforming the repressed instinctual wish into a 'distorted' (symbolized) form that will be acceptable to ego consciousness. Dreams entail the

expression of id material that is pushing for conscious expression, but which would be rejected/repressed by ego if presented directly to it.

The dream process allows the (repressed impulse) to discharge itself, through the channel of a harmless hallucinatory experience, and this insures the continuity of sleep. (Freud, 1938, p.812).

Dreams are thus de facto considered by Freud to represent psychologically conflicting material. Classical Freudian dream theory is thus considered a 'drive discharge' or 'conflict' model of dreams. However, Freud considered their manner of expression to be from an intellectually and developmentally regressed perspective. Dream thought is held to be like that of childhood; that is, "Dreaming is on the whole an act of regression to the earliest relationships of the dreamer, a resurrection of his childhood and of the impulses which were then dominant, and of the modes of expression which were then available" (Freud, 1900, p. 356).

Freud held dream-thought, despite its symbolization, to more primitive than that occurring during waking. be He asserted that the complex symbolic-representational material often characterizing 'manifest' dream content was but a veneer covering the more primitive unconscious wish comprising the actual or 'latent' dream-thought; "Dreams employ this symbolism to give "a disguised representation to their latent thoughts" (Freud, 1900, p. 356). The manifest dream was the purposefully symbolized distortion of the latent dream message designed to deceive the ego into allowing both it and the latent repressed instinctual wish into consciousness. Dream

symbols are thus significant in classical psycho-analytic dream theory inasmuch as they serve the function of disguised instinctual drive discharge.

In his later writings Freud offered revisions psycho-analytic theory that raised questions about two key tenets of psycho-analytic dream theory (wish-fulfillment and disquise in manifest dream content) (Freud.1932). Freud replaced his 'topographic' model of the psyche, with its primary focus on unconscious and preconscious processes, with his 'structural' model and its focus on super-ego and ego functions. This change in emphasis was paralleled by a subtle but important revision of his psycho-analytic dream theory. Freud acknowledged that there were cases - specifically, when individuals experienced a dream that occurred repeatedly over time and which invariably ended in anxiety - when the wish fulfillment hypothesis could not hold.

In the case of the traumatic neuroses it is quite different; here the dream habitually ends in anxiety. In my opinion we ought not to shirk the admission that in such cases the function of the dream fails. I will not have recourse to the saying that the exception proves the rule; the validity of the phrase seems to me very dubious...

In order to take these objections into account, you may say that the dream is an attempted wish fulfillment. (Freud, 1932, pp.817-818).

In calling into question . his previous assumption of a ubiquitous wish-fulfillment function in dreams Freud is tacitly acknowledging that the manifest content may sometimes be undisguised. These two developments become implicit assumptions in most all dream theories since Freud, including the post-Freudian psychoanalytic dream theories (Fosshage,

Loew, 1978, p. 247).

Post-Freudian Psychoanalytic Dream Theory.

One of three major schools of modern and contemporary dream theory is post-Freudian psychoanalytic dream theory. There are at least three variations: ego psychology dream theory; object relations dream theory; and, 'neo-Freudian' dream theory. Though each has diverged from the classical. Freudian model somewhat differently all are largely agreed with respect to the following "revisions in the psychoanalytic theory of dreaming" (Jones, 1968, p.587):

- (i) wish fulfillment is not the function of dreams but rather is a consequence of them:
- (ii) dream symbolism does not function to disguise or distort their (latent) meaning, but is instead transformative and facilitates the 'dream-work';
- (iii) in addition to instinctual drives, day residue can be a causative agent for dreams;
- (iv) in addition to instinctual drive discharge, dreaming serves the ends of conflict presentation and resolution and is thus psychologically adaptive. (Jones, 1968, p.587, 1979, pp.282-293).

Ego-Psychology Dream Theory.

The basic divergence of eqo-psychology theory (Hartmann,1939) from the classical psycho-analytic model is in its assertion that "certain ego structures determine behavior in a manner which is relatively free of...the instincts" (Foulkes,1978,p.104). Ego-psychologists state that the analysis of ego functions - and not id instincts - holds the key to understanding personality and its internal and external relationships. Dreams thus represent the interrelationships

and conflicts of the different ego structures; and, this representation occurs as much in the 'manifest' dream as in the 'latent' dream. As stated by Erikson (1954),

The manifest dream is by no means a shell to a kernel, the latent dream dream; in fact, it is a reflection of the individual ego's peculiar time-space, the frame of reference for all its defenses, compromises and achievements (1954, p.143).

Ego-psychology dream theorists have diverged even farther from the classical Freudian model to consider dreams from a cognitive, 'ego- representation' and 'ego-assimilation' perspective (Hall, 1953a, b, 1972, Piaget, 1962, Witkin, 1969, Jones, 1968, Edelson, 1972, Foulkes, 1978, 1982).

Hall's 'cognitive' dream theory (1953,1972) - places dreaming "within the context of the ego by defending the proposition that dreaming is a cognitive process" (Hall, 1953b, p.273). Hall asserts that dream imagery "is a pictorial reprèsentation of the dreamer's conceptions", and that these conceptions or thoughts "usually fall into one of four classes; self-conceptions; conceptions of others; conceptions of impulses, prohibitions and penalties; and, conceptions of conflicts" (Hall, 1953b, p. 282). Hall views dreams as adopting the perspective of the waking ego, and, in that capacity considers them to "illuminate the basic predicaments of a person as he sees them" (1953b,p.278). Hall is very much at the forefront of those dream theorists who consider dream thought to be a continuation of waking thought; and, that dream imagery "works on essentially the same problems that are being faced in waking life" (Hall, in J. Hall,1977, p.66).

views dreams to be symbolic thinking, that is Piaget largely affective in which (eqo) assimilation occurs without the need for accomodation to reality. Because ego and external accomodation are absent in dream thought, Piaget hypothesizes that dreams present the ego with assimilative conflicts out of a more differentiated ego (Piaget, 1962, ... which develops pp.205-210). Witkin (1969) agrees with Piaget's view in asserting that dreams serve the process of ego-consolidation ('psychological differentiation') by first assuming the perspective of the ego and, second, assimilating psychic material that will create ego-conflict out of which will develop a more 'differentiated' ego.

Jones (1968,1979) considers dreams from an - 'epigenetic' (i.e. Eriksonian) perspective. He holds that dreams reflect processes which facilitate ego-synthesis and growth. Jones views the ego-synthesizing processes in dreams to present a "re-differentiation and re-integration of previous epigenetic (developmental) successes and failures, in the context of contemporary developmental crises (conflicts)" (1979, p. 293) A

Edelson (1972) integrates the concept of 'deep structure' underlying language and thought (Chomsky, 1965) with ego-psychology dream theory. He hypothesizes that dreaming is a process of cognition and ego-synthesis at the 'deep structures' level. Edelson considers dream symbolism to represent a kind of meta-cognition like that theorized by Chomsky to underlie waking thought and language, but in a more isolated, concentrated and hence psychologically facilitative

form.

(1978,1982) proffers Foulkes the most . extensive integration of post-Freudian dream theory, psycholinguistics and the neuropsychological dreaming literature. Foulkes' focus. is, however, less on dreaming as an ego-consolidating process than on the innate grammatical structures underlying dream In his 'cognitive-psychological' or 'psychoneiric' thought. model Foulkes hypothesizes dreaming to facilitate waking cognition by its symbolic representations; that is, dreams "contain forms of long-term knowledge representation that are. abstract and that deal with the (personal psychological) meanings and functional properties of objects or events" (1982, p.175). Foulkes posit's dreams to be lawfully organized forms of cognition constructed by the sleeping mind (ego), possessing personal psychological reference. As with the other ego psychology dream theorists Foulkes, too, considers symbolic dream content to be constructed not to distort or meaning but te express disquise meaning ('long-term knowledge') in orde<u>r</u>; to facilitate ego functions and eqo-čonsolidation.

Object Relations Dream Theory.

The second major group of post-Freudian dream theorists are the object, relationists (Fairbairn,1944,1954, Rycroft,1960, Guntrip,1968, Khan,1972, Padel,1978). Object relations personality theory parallels that of ego psychology in minimizing id elements of the Freudian structural model in favor of ego (and its incorporation of super-ego) processes.

Object relationists, though, focus on ego's internalized representations of significant others ('objects').

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Object relations dream theory holds that dreams represent "first, statements about the present life of the dreamer, second, situations from the past - particularly the ordipal period - involving important objects, and third, the 'state of affairs' of one's inner object relations" (Padel, 1978, p. 130). Dreams here serve the principal function of presenting the ego opport inities to confront and resolve 'bad' with previous object relations. Fairbairn- conceives dreams be to of endopsychic situations over which the "representations" dreamer has got stuck - fixation points in his object relationships - which often include some attempt to move beyond that situation" (Fairbairn, 1954 in Padel, 1978. p.133). Guntrip (1968), in his summary of Klein's seminal work object relations theory, considers dreams to contain on symbolized representations of internal objects, and to provide "corrective contrast to the (waking) interpersonal emphasis on personal (i.e., external) relationships" (in Hall, 1977, p.50).

Object relations dream theory is a 'conflict model' that also considers dreams to contain attempted solutions to the object-conflicts. As such, it views dreams as not just conflict-indicative but also corrective and ego-consolidating psychic phenomena.

We look less for the underlying wish...than for the dream's attempts to deal with bad or threatening object relationships and to put right what once went wrong. (Padel, 1978, p. 134).

Neo-Freudian Dream Theory.

The third major group of post-Freudian psychoanalytic dream theorists are the Neo-Freudians (Horney,1950, Fromm,1951; Lowy,1962, Weiss,1964). As expressed by Horney (1950), the core of personality - called the 'real self' - is an organismic push for optimal psychological development and personal integration; "the real self is the central force or principle, unique within each individual and equivalent to a sense of healthy integration or harmonious wholeness" (Horney in Meissner,1978,p.129). Horney viewed dreams as intrapsychic expressions both of conflict and of its attempted resolution through the expression of the creative, integrative forces of the real self.

Horney presented her dream model in three tenets: in dreams we are closer to the reality of ourselves; dreams represent attempts to solve our conflicts, either in a healthy or neurotic way; in dreams constructive forces are at work over a time when they are hardly visible otherwise (i.e., in the waking state) (Horney, 1950, p.349).

Fromm (1951) saw dreams as a 'forgotten language', existing apart from ego-consciousness. Dreams were seen to reflect both healthy and neurotic aspects of personality, and serve the purposes of conflict resolution and psychological adaptation. Fromm felt that "we are not only less reasonable and less decent in our dreams...but we are also more intelligent and capable of better judgement when we are asleep than when we are awake" (1951, p.33).

Lowy (1962) stressed the 'emotion-producing' and

'emotion-regulation' processes within dreams, their self-contained and emergent status within the psyche, and their core function of facilitating 'psycho-affective homeostasis' (Lowy in Jones, 1979, p. 287). Lowy considered the psychologically adaptive functions of dreams to be "performed in the consciousness of sleep - and the mental health benefits achieved - whether or not the dream carries over into waking memory" (1962, pp. 3, 4).

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Weiss (1964) summarizes the neo-Freudian position with respect to dreams in holding that "dreaming is an active, creative, integrating process" (1964,p.18). Weiss reiterates the core neo-Freudian personality theory tenet "that there are creative, life-affirmative forces at work in us and that dreams are one of these forces' most important expressions" (1964,p.18). Weiss views dreaming to have four "essential, inherent qualities" (1964,p.18):

- (i) a widened scope of perception...the dream often symbolizes what in the waking state had not been perceived...it particularly includes a widened perception of ourselves;
 - (ii) dreaming occurs in a state of lessened
 self-alienation(cf.Horney, 1950)...dreaming brings the person closer to experiencing himself as he is, and as the person he can be;
 - (iii) symbolism in dreaming is a highly creative and holistic phenomenon...which uses the whole realm of human experience to crystallize the dreamer's total feelings, needs, conflicts, and attempts at solutions;
 - (iv) The dream fulfills its most important creative function as/the latent phase in man's growing self-awareness and self- realization. 'biological' function of dre This is the dreams since self-realization is the essential biological activity of the human organism. (Weiss, 1964, pp.19-23).

Post-Freudian psychoanalytic dream theorists thus diverge

from the classical Freudian model somewhat differently, but with each possessing some similar core elements. The most basic are: the establishment of the primacy of the manifest dream, the belief that the manifest dream represents the dreamer's particular stance with respect to an important psychological conflict, and the conviction that the dream also contains at least a potential conflict resolution. The post-Freudians, thus, find themselves between the classical Freudian perspective and those of the other two major schools of modern dream theory, the Adlerian, 'problem-solving' approach and the Jungian 'compensation' or 'self-balance' model.

Adlerian Dream Theory.

The second main branch of modern and contemporary dream theory derives from the work of Adler (1927,1930,1936,1956). Adler broke from the classical psycho-analytic school, and its structural and economic models of personality (over its disguised wish-fulfillment and sleep preservation functions of dreams). with his (Adler's) assertions that, first, individuals are influenced at least as much by the social and cultural matrix in which they exist as by their instincts, and second, the core human instinct or tendency is "the striving toward superiority or perfection" (Adler, 1927, in Maddi, 1980, p.114). This inherent 'striving toward superiority' comprised the quest by individuals to surmount their current problems and conflicts ('feelings of inferiority').

Adler held dreams to be a continuation of waking thought

(i.e., the dreamer's 'style of life') in which preliminary, tentative solutions to life-problems are presented.

In dreams we produce the pictures which will arouse the feelings and emotions which we need for solving the problems confronting us... in accordance with the particular style of life which is ours. (Adler in Ansbacher, 1956, p. 361).

Adlerian dream theory has four key tenets: (i) dreams function to support the dreamer's (waking) style of life; (ii) dreams are largely emotion-generating experiences which are prospective in orientation; (iii) the dream affect that is so salient in dreams serves to offer partial solutions to life problems; and (iv) the literal or manifest problem-solutions offered by dreams are generally inadequate and self-deceptive (cf.Ansbacher,1956,pp.359-360). Regarding the self-deceiving aspect of dreams Adler asserts that,

In dreams we fool ourselves into an inadequate solution of a problem, that is, inadequate from the standpoint of common sense, but adequate from the standpoint of our (subjective) style of life. (Adler in Ansbacher, 1956, p. 360).

Adler's skepticism regarding the self-serving bias he held to exist in dreams and regarding the ultimate inadequacy of problem-solutions contained in them led him to place far less emphasis on dreams in his clinical work than did either Freud or Jung (both of whom placed dreams near the center of their overall personality theories). Yet, surprisingly, this did not diminish the ultimate impact of his dream theory upon modern and contemporary dream theory. Specifically, Adler's assertions about problem-solving functions of dreams, their representation of interpersonal and cultural elements as much as intrapsychic ones, and the self-deceiving feature of dreams were later taken up and developed by a broad range of contemporary dream theorists.

Post-Adlerian Problem-Solving Theory.

Adler's hypothesized problem-solving function of dreams has had the greatest effect of any of his dream theoretical assertions on later dream theorists. And, this largely 'problem-solving' school has eschewed Adler's assertion that the dream problem solutions were by-and-large self-deceptions to focus instead on dreams as truly waking ... adaptation facilitating (French, Fromm, 1964, Breger, 1967, Greenberg, Pearlman, 1970, 1972, Cartwright, 1977).

French and Fromm (1964) in their 'focal conflict' dream theory assert that dreams function to present and offer solutions to important life problems. Their central assumption is that "dreaming serves the purpose/ of seeking solutions to interpersonal problems by embedding a recent emotional dilemma the dreamer (the 'focal conflict') of in a network of analogous problems and solutions from the past, and related problems in the present" (in Jones, 1979, p. 289). French, and Fromm view the problem-solving seen in dreams to parallel waking effort at problem-solving. Though they deny that the problem solutions offered in dreams are self-deceptive French and Fromm retain a bit of Adler's skepticism in holding that "a dream's opening scene often depicts a hallucinatory denial of the focal conflict (i.e., problem)" (in Jones, 1979, p.290).

Breger (1967) considers dreams from a dual perspective of

problem-solving and information processing. Breger theorizes dreams, current, affectively arousing problem . "in that situations are compared and 'tested for fit' with various past 'programs' that have served more or less satisfactorily to resolve earlier conflicts" (Breger, in Dallett, 1973, p.410). Breger conceives dreaming as an opportunity for creative processing of both current conflicts and successful past masteries of conflict with the end of generating 'current' solutions. Breger considers dreaming a facilitative state for this kind of cognitive processing for four reasons derived from recent experimental investigations of dreaming sleep: "stored information is more readily available; associational fluid; the criterion more of social processes are acceptability is at a minimum; and a greater variety of means is available" manipulating symbols for (Breger, in Dallett,1973,p.410).

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Greenberg and Pearlman (1970,1972) have also developed a model of dream function derived from their empirical studies of dreaming. Their particular variation of the problem-solving model is as follows: "during dreaming, feelings from the past and the current stressful stimulus are integrated, and the individual's characteristic defenses for that particular set of emotions and memories are used to deal with the current threat. If the stress is re-experienced, the dreamer now has available his characteristic means of dealing with the threat." (Greenberg, Pillard, and Pearlman, 1972, p. 260). That is, Greenberg and Pearlman see dreaming as a process of

problem solving through the mastery by ego defenses - but not necessarily the transcendence - of the current life stresses and conflicts.

Cartwright (1977) has offered a model of dream function also derived from the recent dream research literature in . which dreams serve both problem-solving and psychological balance roles. Cartwright's model has two core postulates: dreams "preserve and protect the waking self... (and) appear to regulate the subjective world of feelings and help us to adapt to stressful experiences" (1977, p.86, 131); and "dreaming brings to mind the data relevant for exploring a personal Femotional problem when this has not received enough waking attention or has not yet reached closure" (1977, p.89). Cartwright notes her agreement with Jung that dreaming, as a continuous process, appears to play a role in maintaining psychological balance (1977, p. 76), and also with Adler that addressing insufficiently attended-to problems and conflicts comprises a primary dream function (1977, p.31). And, her model the connection made in represents - well contemporary problem-solving dream theory of problem resolution in dreams with the maintainence of a healthy personality (i.e., psychological homeostasis).

Culturalist Dream Theory.

The second contemporary expression of Adlerian dream theory appears in the culturalist approach to dreams (Bonime, 1962, 1969, 1979, Ullman, 1960, 1962, 1979). The culturalist personality model is succinctly stated by Bonime (1979): "Environment, particularly social environment, and personality, in reciprocal interaction, continue throughout life to determine and modify the structure of personality (1979,p.83). Culturalist dream theory integrates this 'Adlerian' concept, in asserting that dreams represent personally important social and cultural knowledge, with the Jungian-derived assertion that dreams play a role in the process of psychological self-balance.

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Bonime views dreams as "unguarded symbolic expressions of the self" (1979,p.81). Bonime hypothesizes that these 'symbolic expressions' comprising dreams are rooted not just in the accumulated personal experience of individuals but in the social and cultural milieus enveloping them. Dreams thus contain here personal as well as cultural symbolic imagery. Bonime disagrees with Adler's views that dream solutions are self-deceptions and that dream thought is more primitive than most waking thought; rather, he considers the dream as "probably the most authentic presentation of personality," (1979,p.81), but whose symbolic representational imagery must be deciphered by the dreamer (p.81).

Ullman conceives dreaming as a process which reflects one's social rootedness as well as one's current psychological state. Dreams in Ullman's view are generative phenomena; "dreams generate knowledge: self-knowledge and social knowledge" (1979,p.352). Ullman posits the interrelationship of personal and social dream 'knowledge' as follows, "Dreams are sensitive to the state of our relationship with

others. Our dreaming self focuses on our connections to others and the intactness of those connections...Dream images come from our social heritage and from our current social existence. We rearrange and rework them to suit our own[°] ends...(but) the meaning that we give them is influenced by the meaning given to them 'out there'." (Ullman, 1979, p.209).

As with Bonime, Ullman refutes Adler's view of dreams and specifically dream solutions and insights as self-deceptive. In fact, Ullman sees dreaming as a process dedicated to exposing self-deception in waking life; "our dreaming self exposes and explores the hold that these self-deceptive strategies still have over our lives" (1979, p. 154). <u>Self-Deception Dream Theory</u>.

The third group of post-Adlerian dream theorists comprises 'self-deception' dream theory (Giora,1972, McCarley and Hobson,1979, 1981). Self-deception dream theorists offer what is essentially the null hypothesis regarding dream meaning; i.e., that dreams are either inferior cognitive productions to waking thought, hence peripheral phenomena, or that dreams do not contain organized thought and thus are psychological non sequitors.

Giora represents the former position with respect to dreams. In his 'reappraisal' of psychoanalytic dream theory Giora noted that, in therapy, dreams serve only to 'detour' the therapeutic process (1972,p.1067). He concluded that "if dreams serve any constructive purpose at all in therapy, about the best that can be expected from dreams is a sort of veiled

communication" (Giora, in Miller, 1975, p.136).

McCarley and Hobson, in their earlier-mentioned 'activation-synthesis' neuropsychological model of dreaming, have proposed that dream imagery and dream affect are isomorphic with and are determined by the "simultaneous' activation of sensory, affective, somatic and motor neural systems" (1979, p.125), McCarley and Hobson view dreams as 'synthesized' by this diverse and being simultaneous activation of neural systems (or 'pattern' generators'); and that, "the frequent bizarreness of dream content may reflect the knitting together of contradictory elements in dreams because of the different simultaneous modes of activation unlike in waking" (McCarley and Hobson, 1979, p. 125). McCarley and Hobson thus consider dreams to be far more diffuse, primitive, and psychologically disjointed forms of thought than in waking. In fact, they assert that the 'synthesized' dream "results from the motivationally neutral activation of the pontine (brainstem) executive cells" (1981, p. 234).

Jungian (Analytical Psychology.) Dream Theory.

The third main school of modern and contemporary dream theory - the self-balance model - derives from Jung's 'compensation' dream theory (1934,1948a,b,1954). Though presented later in more detail, Jung's view posits a central organismic motivating force in personality, the drive toward individuation, or optimal psychological development. The expression of this organismic push toward individuation is a principal function of dreams. Analytical Psychology' theory

holds that donscibus the elements of psyche (ego-consciousness) make up only a part of the whole, with the balance comprised by the personal unconscious and the collective unconscious. The most idiosyncratic of Jung's constructs, the collective unconscious is personality theorized to contain the roots of the other (emergent) personal unconscious and ego-conscious personality structures the archetypes. The archetypes of the collective unconscious are the "inherited tendencies of the human mind to form representations of mythological (i.e., universally human) motifs - representations which we can vary a great deal (in /individual expression) without losing their basic pattern" (Jung, 1953, in Mattoon, 1978, p.18): Analytical psychology dream theory holds that "since dreams contribute to experiencing these unconscious parts of the psyche, they give impetus to the individuation process" (Mattoon, 1978, p.26).

In the Jungian model the total personality or psyche is a self-regulating system in which conscious awareness, with its inherent ego-bias, is being constantly balanced and augmented by personal and collective unconscious processes. Dreams function "as a primary mode by which the unconscious processes express a balancing or homeostatic reaction, in symbolic form, to the one-sided position of the unconscious attitude" (Greene, 1979, p. 302).

Though almost no other modern or contemporary dream theorists have taken up Jung's concept of the collective unconscious and its constituent archetypes, `a great many have

adopted his seminal formulations regarding: the legitimacy of the manifest dream; the dream as a creative psychological production which augments waking consciousness; the dream as a continuous and not merely neurosis-related phenomenon; dream symbols and imagery as revelatory rather than as concealment and distortion; and, the role of dreams with respect psychological self-balance. Several of the above-mentioned post-Freudian and Adlerian dream theorists - particularly, the neo-Freudian, the 'problem-solving' and the culturalist schools - have clear links to these Jungian-derived concepts. Jungian dream theory itself is gaining an increasingly broad (Cartwright, 1977, J.Hall, 1977, Mattoon, hearing 1978. Whitmont, 1978, Cohen, 1979, Greene, 1979, Ullman, 1979). And, a broad range of modern and contemporary dream theorists have taken up as a core component of their models the Jungian conception that dreams serve the process of psychological self-balance.

Self-Balance Dream Theories.

In addition to the conceptualized importance of a self-balancing function in dreams for several of the ego psychology, object relations and culturalist dream theorists (as described above), at least four other schools of dream thought hold self-balance to be a core dream function. Gestalt Dream Theory.

Gestalt dream theory (cf. Perls,1969, Fanz,1978, Corrière, et al., 1980) views the dream as "an existential message from within the dreamer, a means of creative

expression... which allows the dreamer to come into touch with very personal parts of his being" (Fanz,1978,p.192). In addition to their focus on self-balance, gestaltists share two other analytical psychology theory constructs; the dream interpretive methods of 'active imagination' and 'amplification'. Perls describes his approach to dream-work as follows: "All the different parts - any part of the dream is yourself, is a projection of yourself...Make a list of all the details in your dream. Get to know every person, every thing, and every mood and then 'work on these to become each one of them" (Perls, 1969, p.69).

Perl's approach toward dreams in which one is urged to 'get to know' and to become currently unrealized aspects of oneself epitomizes the gestalt view that dreams are "catalysts for becoming" (Fanz, 1978, p.193). Also expressed here is the gestaltist conception of dreams as affectively salient creative self-expressions which, if integrated into waking personality, will facilitate its optimal balance by 'realizing' all or most all its facets.

Corriere et al. (1980) in a more recent variation on the gestaltist theme take up the view of dreams as creative affective self-portraits. In their 'functional' dream model Corriere et al. conceive dreaming as a process which "functions to return the (psychic) system to wholeness" (Corriere, et al., 1980, p. 29). They present their 'functional' dream theory as follows, "there is a drive, in waking and in dreaming, that moves toward full consciousness. This basic

dream process drives dreams to complete...(the) feelings that have been incompletely expressed during 'the day... It's the body's natural healing system against an unbalanced state" (Corriere, et al., 1980, p.29).

The parallel between the Jungian concept of a drive towards individuation that is expressed in dreams and the above statement by Perls and Corriere is very close. Existential/Phenomenological Dream Theory.

Though decidedly non-depth psychological in their focus upon the immediate relationship of the individual to his world (i.e., the core construct of 'Dasein' or 'being-in-the-world'), existential and phenomenological dream theorists also view dreaming a potentially self-balancing psychic function (Boŝs, 1958, 1978, Caligor and May, 1968).

As conceptualized by Boss, the ongoing process of Dasein is oriented toward the optimization of a "sufficiently open, free and attuned" being in-the-world (Boss, 1978, p.153). Boss / views dreaming to serve the ends of optimized being-in-the-world by allowing different forms of immediate experience into one's existence, and thus optimize one's potential for full (i.e., balanced) experience of the moment (1978, p.153): In Boss', view, though, dream experience is considered secondary to waking, at least in those individuals experiencing optimal Dasein. Boss notes, however, that for most people dreams are sources of insight into current conflicts and psychic encumbrances inhibiting one's fully experienced 'being-in-the-world' (1978, pp.153-162).

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Caligor and May (1968) forward the phenomenological model of dreams: In it dreams also serve to correct / imbalances in current waking existence, i.e., they contain "potentialities for awareness and experience which the individual is unable or unwilling time actualize" (Caligor at that to and May,1968,p.6), As in Boss' existential dream model the phenomenological approach considers dreams to serve the core function of helping to surmount current impediments to a fully functioning or da-sein existence. Unlike Boss, however, the phenomenologists see dreaming as a creative (and not merely existential actualization or reflective) element in the self-balance life processes. presents the May phenomenological position thus, "dreaming has some connection with man's distinctive capacaty for transcendence; i.e., his capacity to break through the immediate objective limits of existence and bring together into one dramatic union diverse dimensions of existence" (May, in Caligor and May, 1968, p.4).

In the main, though, existential and phenomenological theories agree that the central purpose of dreaming is "to enable the person to experience" (May,1968,p.9) and, in this capacity, to better balance or actualize one's current existence.

Humanistic and Psychosynthesis Dream Theory.

Both the humanist and psychosynthesis models of personality posit that the core human tendency is toward self-actualization and that dreams both reflect and express this organismic push (Rogers, 1961, Maslow, 1962,

Assagioli,1965, Krippner and Hughes,1970, Rossi,1971,1973). Rossi (1971) summarizes the humanist-psychosynthesis position with respect to dreams as follows,

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The positive figures and forms of the dream process are nascent aspects of one's individuality; they represent emergent characteristics within the phenomenal realm of the dreamer. Psychosynthesis of the positive figures...integrates their characteristics as new aspects of identity that can be actualized into behavior. (1971,pp.157-158).

Psychosynthesis and humanist dream models both distinguish between positive-toned dream imagery, which they consider to hold the emergent and actualizing aspects of dreams, from negative-toned content, which is posited "to indicate that there has been a block...within the phenomenal realm" (Rossi,1971,p.156).Krippner and Hughes (1970), in a statement of the humanist dream perspective underscore the self-actualizing tendency's unique expression in individual dreamers, and also focus on positive dream imagery as wherein resides this self-actualizing drive.

With regards to the core humanist-psychosynthesis tenet that the self-actualizing motive is expressed in dreams as well as in waking, and thus serves to balance all the 'new aspects of identity', Assagioli and Rossi both make direct reference to their conceptual similarity with Jungian theory (Assagioli, in J.Hall, 1977, p. 54, Rossi, 1971, p. 147).

Commonalities Underlying Contemporary Dream Theories.

Modern and contemporary dream theories can thus be seen to derive from the three classical dream models of Freud, Adler and Jung. Of these classical approaches Jung's appears

the most consistent with the majority of the modern and contemporary dream models, at least with respect to their underlying commonalities. These commonalities include:

- (i) the legitimacy afforded the remembered ('manifest') dream as an undisguised self-presentation;
- (ii) the assertion that dream imagery is largely symbolic-representational because this is the functional mode of the sleeping mind, and not because of some ulterior motive (i.e., disguised representation or self-deception);
- (iii) the perspective of the dreaming process as expressing an emergent, organismic, actualizing aspect of personality which facilitates ego development and self-balance; and,
- (iv)the basic conceptualization that dreams serve the process of psychological adaptation, both in presenting unassimilated conflicting material to ego-consciousness and in offering at least partial conflict resolutions (Dallett, 1973, Fosshage and Loew, 1978, Cohen, 1979).

This last shared feature of analytical psychology and modern and contemporary theories of dream function – that dreams facilitate the process of psychological adaptation by expressing both healthy and neurotic aspects of the whole (i.e., the previously unattended as well as consciously recognized) personality – will be discussed in greater detail, below, in reviewing the empirical dream content literature. Empirical Dream Content Literature.

Though the empirical dream content research literature spans an enormous range of phenomena, subject populations and experimental manipulations it has continued to manifest a largely 'micro' or discrete-phenomena bias. In their review of the whole of the empirical dream content literature up to 1972, Winget and Kramer (1979) note the presence of six main

areas of inquiry: demographic or 'census-taking' studies $(\underline{n}=47, \text{ or } 13\% \text{ of the total});$ developmental studies $(\underline{n}=20, 5\%);$ sex different studies $(\underline{n}=34, 9\%);$ discrete phenomena or discrete subject group studies (e.g., studies involving alcoholics, pregnant women, renal patients, aged, blind_k or terminal patients) ($\underline{n}=81, 21\%$); psychopathology studies ($\underline{n}=51$, 14\%); and, laboratory manipulation studies ($\underline{n}=126, 34\%$) (Winget and Kramer, 1979, pp. 280-367).

Dream Content Analysis.

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The principal tool of dream content researchers is content analysis (cf.Hall, Van de Castle,1966, Gottschalk-Gleser,1969). Though they recognize dream content analysis' two main shortcomings - "it is reductionistic...and it ignores the unique" in peoples' recalled dreams (Hall, Van de Castle,1966,p.5) - dream researchers view content analysis to be a very reliable, empirically justifiable means with which to explore dreams.

I know of no other way to study dreams scientifically than to change them from private events to public ones, thereby making them amenable to objective assessment. This is usually done by substituting the dream narrative for the experienced dream and then measuring various components of this narrative through rating scales. (Hauri, 1975, p. 271).

Of the 150 extant dream rating and dream content analysis scales reviewed by Winget and Kramer (1979) two of the most favored and best validated are those by Hall and Van de Castle (1966) and Gottschalk, Gleser (1969). The Hall-Van de Castle system is probably the most used and best-validated dream

content analysis technique. The Gottschalk-Gleser content analysis system, originally designed with generic verbal or recorded psychological material in mind, has since been validated and employed in a variety of dream content research (cf.Winget and Kramer, 1979, Witkin, 1968). Extensive reliability and validity data for both the Hall-Van de Castle and Gottschalk-Gleser dream content analysis systems appear in Winget and Kramer (1979).

In considering the subsequent literature of three core areas of the dream content literature - normative studies, dream content and psychopathology, and dream content and psychological adaptation - it is important to note the methodological criticisms of Hauri (1975) and Kramer and Roth (1979). These can be summarized as follows: (i) many of the scales currently in poor dream content use "are, of psychometric quality, i.e., they do not provide the minimal (reliability and validity) information necessary to assess their scientific value," (Hauri, 1975, p. 271); (ii) a sizeable proportion (>50%) of dream content studies either do not have comparison or control group, or have insufficiently matched comparison and control groups with respect to core demographic "other and criteria (Hauri, 1979, p.275, Kramer and Roth, 1979, pp. 361-364); (iii) a large proportion (67%) of the dream content and psychopathology studies either have vague or nonspecific selection and diagnostic criteria with respect to . membership - Kramer psychopathologic group and the Roth, 1979, p. 368); (iv) a minority of dream studies (25%) use

standard or content category-based dream content ratings scales in concert with more than one 'blind' rater (Kramer and Roth,1979,p.370).

Normative Dream Content Research.

Three of the better normative dream content studies (considering the above criteria) are those by Hall and Van de Castle (1966), Kramer, Winget and Whitman (1972) and Hall, Domhoff, Blick and Wessner (1982). The following discussion of modal or normative individual dream content derives from these studies.

Probably the most ubiquitous normative dream content finding is the greater proportional representation of negative affective, thematic and social interactional dream imagery. In the remembered dreams of normal (i.ev, nonpsychiatric) individuals negative affect is twice as prevalent as positive affect, anxiety is experienced in two-thirds of all dreams, success/good fortune experiences are one-third as tikely to be experienced as failure/misfortune experiences, and aggressive social interactions are more likely to occur than friendly or affiliative ones (Hall and Van de Castle, 1966, Kramer et al., 1972, Hall et al., 1982). (n.b. Normative dream content data for combined male and female normal populations appears in Appendix I.) Approximately half of all remembered dreams contain hostile or aggressive interactions for the dreamer.

With respect to dreaming frequency, as noted above (Webb and Kersey, 1967), of the 5 or 6 potentially recallable dreams individuals experience each night, the average normal dream

recall is c.l every two nights. Among participants in dreaming studies (an admittedly motivationally biased, sample) the average remembered dream is about 125-150 words in length (Hall and Van de Castle, 1966, Hall et al., 1982). On average, individuals' remembered dreams contain 5 activities, such as speaking and movement. These activities are engaged in by the dreamer and 2-3 other dream characters (Hall and Van de , Castle, 1966, Kramer, et-al., 1972).

Sex Differences.

In the methodologically soundest investigation of dream report sex differences, Hall, et al. (1982) reported a comparative survey with a 30-year replication. With regard to pleasant versus dysphoric and affiliative versus aggressive and hostile dream content both men and women experience more of the latter. Women, however, appear to experience 25% fewer aggressive interactions, while experiencing roughly the same amount of friendly interactions as men (Hall, et al., 1982, p.192). Regarding dream aggressions, the proportion of remembered dreams in which one is either the aggressor or the victim of an aggression is roughly comparable for men and women (1982, p.193). And, with respect to friendly dream interactions both men and women are as likely to be the befriender as the befriended (p.193).

Despite the rough parity between men and women on all but aggressive and anxious dream content, Hall, et al. do report some remembered dream differences between the sexes. Women are significantly less likely to have men appearing as dream.
characters as are men. However, they report engaging in significantly more friendly interactions and significantly fewer aggressive interactions with men than men do. The reverse is the case in men's remembered dreams. Men report significantly more male-to-male aggressions and significantly less male-to-male friendliness (1982, p. 193). And, as would be expected, Hall et.al. report that men experience significantly more male-to-female friendly interactions in their dream reports while the opposite is so for women (p. 193).

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The results of the Hall, et al. (1982) study are essentially paralleled in most of the better-controlled studies of sex differences in recalled dreams (e.g., Van de Castle, 1970, Winget, et al., 1970).

Regarding the hypothesized cyclical variation in women's reported dreams associated with menstruation, Sirois-Berliss and DeKoninck (1980) report, "there was a significant increase in anxiety and hostility in the subjects' dreams during the premenstrual and menstrual phases as compared to the phases", (Sirois-Berliss 'intermediate ,and DeKoninck, 1980, p.159). These findings essentially replicate earlier work by Swanson and Foulkes (1968), `who reported in addition that, other than in these elevations in hostility-toned dream content, "no other rated dimensions of dream content were significantly related to (menstrual) cycle phase" (Swanson and Foulkes, in Schwartz, et al., 1978, p.164). Dream Content and Psychopathology.

Over the past 20 years a modest but, growing literature

has been accumulating with respect to controlled and semi-controlled studies of dream content and psychopathology. In the three areas of this literature herein considered dream content studies of depression, anxiety neurosis and global neuroticism - some clear trends have emerged. On balance, individual psychopathology is expressed in remembered dreams by increased proportions of hostile, anxious, dysphoric and aggressive-interactional dream content (Kramer, Roth, 1979, Schwartz, et al., 1978, Winget and Kramer, 1979, Cohen, 1979).

However, as Kramer and Roth (1979) note, "the limited number of findings that have independent verification in any study of the dreams of a psychopathologic group is impressive" (Kramer and Roth, 1979, p. 379).

Dream Content Studies of Depression.

In a thorough review of the range of descriptive, controlled, non-laboratory and laboratory studies of dream content and depression, Kramer and Roth (1979) report several consistent findings. Depressed individuals report a comparable number of dream reports as normal, non-depressed controls, but their recalled dreams are significantly shorter and more impoverished with respect to activity, affect, and social contact. However, in their shorter dream reports depressives report significantly greater proportions of hostility, aggressive v. affiliative social interactions, negative v. positive affect, and failure and misfortune v. and good fortune event-outcomes. success (Kramer and Roth, 1979, pp. 377-379, Schwartz et al., 1978, pp. 178-181).

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In one of the better-controlled dream content-depression studies Hauri (1976) investigated the recalled dreams of remitted depressives. In line with the results of earlier studies (e.g., Miller,1969, Kramer et al.,1970), Hauri reported that remitted depressives' dream reports contained significantly more masochistic and hostile content than matched, non-depressed controls; but, in most other respects the dream reports of remitted depressives approximated that of the normal control subjects (1976, p.1). Hauri's findings support the existence of enduring depressive or depressogenic dispositions in individuals who no longer report clinical depressions. (Schwartz, et al., 1978, p.181).

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Anxiety and Dream Content.

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Despite the ubiquitous presence of anxiety throughout the range of psychopathology and neurosis, only a handful of studies in the dream content and psychopathology literature have addressed it with respect to recalled dreams. Gentil and Lader (1978) reported a comparative study of recalled dream content in female anxiety neurotic patients and high and low anxiety normals. Of the three female groups, the anxiety neurotic patients reported significantly shorter dream reports containing significantly greater proportions of anxious, dysphoric and aggressive-interactional content. Though the high-anxious normal group reported the longest dreams their recalled dream content placed them consistently between the anxiety-neurotic patients and the low-anxious normals. The low-anxious normal group reported the most balanced dream

content with respect to overall pleasant v. dysphoric tone. Géntil and Lader conclude their findings are consistent with the hypothesized relationship between recalled dream content and one's current level of psychological adaptation (1978,p.303).

Maultsby and Gram (1974), is a process study of reported dream content in high-anxious psychotherapy patients reported that the proportion of anxiety-toned dream content declines significantly following termination of successful psychotherapy. Maultsby and Gram also note the consistency of their findings with the view that one's dreams reflect the processes both of psychological adaptation and psychological conflict resolution.

Melstrom and Cartwright (1983) have recently reported findings opposite those of Maultsby and Gram (and, opposite their own predictions). They found, in a group comparison design similar to Maultsby and Gram, that the unsuccessful psychotherapy group reported post-therapy dream-anxiety levels below both a successful psychotherapy group and a no-therapy control group, Additionally, Melstrom and Cartwright reported that the successful psychotherapy group reported the greatest change in dream-report anxietý (as predicted), but in an elèvated rather than the predicted diminished direction (1983, p. 57). Melstrom and Cartwright attempt to account for their anomalous finding by hypothesizing that the brief (c.17 day) period between the end of therapy and the post-assessment meant the "successful patients were not evaluated at the

optimum time for demonstrating healthy change... If later follow-ups had been taken, the prediction...might have been tested more adequately" (1983,p.62).

Neuroticism-Dream Content Literature.

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The empirical literature assessing the effects of waking neuroticism on recalled dream content is of essentially two types. The first (cf.Kramer and Roth,1979,1973, Miller,1969) has focused on the relative. proportions of core dream content dimensions in clinically defined neurotic groups. The second type (cf.Cohen and Cox,1975, Cohen,1974, Bone,1968) has focused on differential dream content 'responses' to pre-sleep stresses in psychometrically defined neurotic ('sensitizer') and non-neurotic ('repressor') groups.

The clinical dream content-neuroticism empirical literature is very much in line with the depression and anxiety literature above (Kramer and Roth, 1979, 1973, Schwartz al.,1978, Miller,1969). Relatively et few controlled investigations of dream content and clinical neuroticism have been reported. The consistent finding, however, is that the recalled dream reports of clinically defined neurotic individuals contain porportionally more negative affective, aggressive, and unsuccessful dream content than non-neurotic controls.

The dream content-neuroticism literature, characterized by its attempts to manipulate individuals' dream content through pre-sleep stressors has approached the dreaming neuroticism link from a guite different direction. Cohen and

underscoring the modal (1975), findings ìn Cox this literature, reported that individuals scoring low on psychometric measure of neuroticism ('repressors') report. significantly less disturbed and affectively intense dream content following exposure to a series of stressful pre-sleep stimuli than did high-neuroticism individuals ('sensitizers'). And, the high-neuroticism 'sensitizers' evinced much greater sensitivity to these pre-sleep stressors which appeared to translate into greater proportions of anxious, unpleasant and affectively intense subsequent dream content.

These findings are consistent with earlier 'repressor-sensitizer' dream content research (Goodenough, et al., 1974, Cohen, 1974, Bone, 1968). Cohen (1979) interprets them to suggest that 'sensitizers' possess relatively less ego-strength than 'repressors', and that their neuroticism is reflected in a greater sensitivity to negative interference with respect to their dream content 'responses' to pre-sleep stressors (1979, pp. 253-255). This line of research will be taken up again when reviewing the literature on dream content and psychological adaptation.

Continuity versus Compensation in Recalled Dream Content.

The issue of whether recalled dream content is either continuous with or compensatory to waking thought has generated strident arguments for each position. Hall (1966,1972), perhaps the strongest proponent of the continuity position, asserts that "dreams are continuous with waking life,...the dream world is neither discontinuous nor inverse

in its relationship to the conscious world" (1972,p.104). Hall points to the stable thematic and affective trends in peoples' dreams and their identifiable links with current waking concerns, and the essential comparability of dream thought and waking thought as evidence for the continuity position.

The compensatory relationship of dreams and waking thought first asserted by Jung (1934), has been taken up-by (1979). Though the Jungian assertion of dream Fiss compensation will be taken up later in more detail, in brief, Jung holds that dreams serve to compensate developing one-sided attitudes in waking consciousness by presenting material that will correct (compensate) the waking imbalance. Fiss (1979) has taken up the compensation position with respect to REM sleep interruption. Fiss observed 'compensatory' increases win dreaming subsequent to REM interruptions, and that REM sleep interruptions "bring about a compensatory intensification of the dream process (1979, p. 57). Fiss concludes from these data that "dreaming is not only generally important for maintaining our psychic balance, as Jung said, but also ... that dreaming serves specific (compensatory) ego functions" (1979, p. 57).

This brief presentation of the continuity and compensation positions implies the division of contemporary dream researchers into one or the other camp. Recent workers, however, have identified the conflicting nomothetic bias of the dream continuity proponents and the essentially

idiographic bias of the compensation proponents (Cohen, 1979, Cartwright, 1977). A far more reasonable middle ground, consistent with the modal 'self-balance' contemporary dream theory, has been staked out by Cartwright (1977).

In fact, the controversy over whether dreams are complementary or continuous with one's waking life may be too simplistic a notion. It may be that either or both types can be represented in (peoples' dreams), their proportions depending on the dreamer's prevailing psychological balance. Frustrating daytime experiences might tend to produce dreams that are compensatory in content, while the dreams of persons with well-balanced waking functioning may be more continuous with daytime experiences. (Cartwright, 1977, p. 31).

Cartwright thus articulates the view shared by Cohen (1979), Hauri (1970) and others that "under certain circumstances, dream life is compensatory to waking experience" (Hauri, 1970, p. 274). This position will later be shown to be not demonstrably different from a more full consideration of the analytical psychology dream theory 'compensation' position.

Dream Content-Adaptation Literature.

Empirical studies of the relationship between recalled dream content and psychological adaptation have tended to focus on dream content processing of experimenter induced pre-sleep stressors. (cf.Cohen,1979,p.269). That is, this research has tended largely to assess "whether the nature of the content of the dreaming process reflects the pre-sleep problems in an active (observable) and adaptative manner" (Cohen,1979,p.269).

The majority of 'dream adaptation to pre-sleep stress'

studies have generated data supporting a recalled dream content-psychological adaptation link (Fiss, et al., 1977, Cohen and Cox, 1975, Fiss, Ellman, 1973, Kramer and Roth, 1973, Greenberg, et al., 1972). Fiss, et al. (1977) reported results demonstrating that "incorporating a pre-sleep stimulus into dream content facilitated the subsequent recall of the stimulus in the waking state" (in Fiss, 1979, p. 60).

Fiss and Eliman (1973) reported that the compensatory increase in proportion of total sleep time spent dreaming when REM sleep was experimentally interrupted. Cohen and Cox (1975) in a study which included replications of earlier work by Kramer and Roth (1973) and Greenberg et al. (1972), reported results indicating that "for certain (dream content) dimensions...the dreaming process provides a necessary but insufficient predisposition which, when interacting with certain (waking) situational events promotes a long-term change (i.e., adaptation) beyond the confines of the experiment" (Cohen and Cox, 1975, p.107). Cohen and Cox conclude that there is indeed a recalled dream content-psychological adaptation link; however, they note that "some types of dream content are better than others" at facilitating waking adaptation (in Cohen, 1979, p. 271).

One of the few counterpoints to the above literature is research by DeKoninck and Koulack (1979). DeKoninck and Koulack reported results opposite those of Cohen and Cox; i.e., they failed to find support for their hypothesis that if dreaming is a psychologically adaptive process then dream

adaptation to pre-sleep stress should comprise anxiety-toned dream content (cf.Cohen, 1979, p.272). As with all of the above literature regarding experimenter induced pre-sleep stressors, however, there is some question in the DeKoninck and Koulack study concerning the salience of the pre-sleep stressor.

In reviewing the dream content-psychological adaptation literature Cohen (1979) concludes, "in short, while the evidence for the adaptive hypothesis is certainly rather fentative (cf.Cohen and Cox,1975) & strong evidence for the null hypothesis (cf.DeKoninck and Koulack,1975) seems equally tentative" (1979,p.274). Cohen also acknowledges the artificiality of the 'experimenter-induced pre-sleep stress' paradigm for assessing the relationship between recalled dream content and psychological adaptation.

demonstration While laboratory the . of adaptation will tend to focus on dream-mediated changes with respect to a specific problem, this must be thought of as a microscopic representation of...real world problems (that) are often less specific and involving adaptive changes (that) may be more gradual and thus more difficult to identify...That the recall of dream content may + occasionally elicit insightful solutions post-sleep (to pre-sleep stressors) is not evidence for (the adaptive hypothesis). That dream content may represent a solution to a previously unsolved. problem would constitute (such) evidence. (Cohen, 1979, p. 256-257).

A preliminary attempt at just such a 'real world' investigation of dream content and adaptation was Klein, Fiss, et al.'s (1971) attempted investigation of recurrent dreams. Though Klein, Fiss, et al. found recurrent dreams very elusive phenomena - in fact, they failed to collect more than one in their sleep laboratory 7 they did hypothesize that such dreams

must be particularly important with respect to the dreaming-adaptation link (in Fiss, 1979, p.53).

On balance, then, the dream content empirical literature is generally consonant with the analytical psychology theory assumption that dream content expresses individuals' current level of adaptation and/or psychological conflict and stasis. Unfortunately, the small-but-growing number of Jungian dream content studies in the recent literature (cf.Kluger,1975, Faber, et al.,1978,1983, Cann,1979), do not yet provide sufficient overlap with the above dream content-psychological adaptation literature to afford a more detailed judgement of analytical psychology theory's specific empirical support.

Unconscious Psychological Processes.

No psychological model that seeks to explain how human beings know, learn or behave can ignore the concept of unconscious psychological processes (Shevrin and Dickman, 1980, p.432).

In this section several areas of the theoretical and experimental literature will be reviewed as they address the question of the existence, nature and organization of unconscious psychological processes. Two points will be developed here beyond the fact that researchers and theoreticians far outside the confines of depth psychology theory (e.g., Freud, Jung) consider unconscious processes a basic part of human psychological make-up. The first is that a broad-based empirical and theoretical literature exists that suggests and is consistent with the existence and influence of unconscious processes. The second is that the analytical

psychology theory assertion that there exist two levels of unconscious processes (personal unconscious, collective unconscious) is also favorably addressed in this literature.

Before proceeding it would be of use to clarify what is one speaks . of 'unconscious psychological meant when processes'. Shevrin and Dickman define the concept in terms of three basic characteristics: it is psychological (i.e., an aspect of personality); it is independently active and imparts an influence on the individual's conscious awareness; and, it is organized in fundamentally different ways (regarding its is consciousness corè processes) than (Shevrin and Dickman, 1980, p.422).

Shevrin and Dickman (1980) dite empirical support for the existence and distinctive nature of unconscious processes in the experimental psychology areas of selective attention and subliminal perception. And, though each area is concerned in such processes (which they term subconscious or subliminal) from well outside the domain of personality theory, their relevance for the latter is apparent.

Selective Attention Literature.

Shevrin and Dickman (1980), reviewing some of the major models of selective attention (Broadbent, 1958, Treisman, 1963, Deutsch and Deutsch, 1963, Neisser, 1967, Posner, et al., 1973, Sternberg, 1975), note that each supports the above tripartite definition of unconscious processes. That is, each-model holds that: the initial phase of stimulus processing is one occurring outside conscious awareness (i.e., consciousness

subconsciously mediated); appears to be unconscious *tsubconscious*) processes appear to have a different structural organization: key feature of this structural and, a. organization is that of being multi-channeled, with each channel processing information at a rate faster than occurs in consciousness (Shevrin and Dickman, 1980, pp. 423-426). Posner et al. have observed that consciousness "serves to impose a serial order upon what are essentially widespread parallel outside consciousness)...* processes (emanating from (1973,p.11).

Subliminal Perception Literature.

Shevrin and Dickman also cite support for unconscious psychological processes research in the area of subliminal perception (Fisher,1956, Klein and Holt,1960, Spence and Holland,1962, Dixon,1971, Pogner,1973). They note the modal view of these workers that a great deal of complex cognitive activity occurs without benefit of conscious awareness; and, that this cognitive activity is more multi-channeled and associationally multidimensional than is observed in conscious processing (Shevrin and Dickman,1980,pp.426-430).

Spence and Holland have concluded that the associative richness of responses to subliminally presented stimuli far exceeds those to consciously presented (supraliminal) stimuli; and, they postulated the "restricting effects of awareness" (Spence and Holland, 1962, p. 163). Posner (1973), also asserted that supraliminal presentation of stimuli significantly reduces the range of associations elicited from them. Posner

postulated that stimuli always elicit multiple levels of associations, but that only one usually reaches conscious awareness. Dixon (1971) has proffered a neurophysiological model of subliminal (unconscious) processes which posits that a broader, more extensive network of neural pathways is responsible for the multi-channeled and associatively richer subliminal (or, subconscious) precessing of stimuli. Electrical Brain Stimulation fiterature.

The electrical brain stimulation work of Penfield and colleagues (Penfield, 1952, Penfield and Perot, 1963), is some of the more surprising research to have generated data consistent with the existence and distinctive structure of a psychological unconscious. Penfield made the serendipitous discovery, when applying mild electrical stimulation directly to the temporal lobe of patients' non-dominant (i.e., right) cerebral hemispheres, that patients would report vivid, associationally rich and emotionally potent memories they were unaware they had (Penfield, 1952). These memories receded from consciousness upon cessation of electrical stimulation. Penfield stated that, "since such stimulation produced at times detailed...visual experiential recall...it seems likely that these areas play in adult life some role in the recall of past experience" (Penfield, Perot, 1963, in Bakan, 1978, p.290). Penfield's overall conclusion from these electrical brain stimulation studies was that,

The responses from stimulation of sensory areas follow what may called inborn patterns.) They are the same regardless of what an individual's experience may have been. On the other hand, ... responses from

the memory cortex are of an entirely different order. They are made up of the acquired experience of that particular individual. (Penfield,1952, p.181).

Penfield's conclusions are consistent with the postulation of the 'depth' psychologists of a psychological unconscious.

Until now support has been presented for a psychological unconscious in which is contained psychological material largely from one's personal experience. However, several lines of theory suggest the existence of a second, more basic level of unconscious processes. This 'collective' unconscious is not dependent on personal psychological material (memories, experience) for its existence. These areas, comprising such diverse fields as cultural anthropology, developmental psychology, REM sleep and dream research, and neuropsychology are discussed below.

Cultural Anthropology.

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Based upon their cross-cultural observations of consistencies in human behavior and social organizations Levi-Strauss (1967) and Piaget (1970) have evolved a model structuralism - which attempts to account for them at the individual personality level. One of the key postulates of structuralism is that "the mind has preformed categories that enable humans to acquire language and produce similar forms of social organization in widely separated societies," (Mattoon, 1977, p. 26). Mattoon refers to Chomsky's work on language (Chomsky, 1965, 1975) as providing at least partial

support for the structuralist hypothesis. Chomsky, based on his cross-cultural linguistic research, has asserted that "the language faculty may be regarded as a fixed function, characteristic to the species... that is unlearned and universal" (Chomsky, in Trotter, 1975, p.333).

Developmental Psychology.

Bowlby (1969), from his research on the psychological development of human infants has asserted their instinctive (i.e., unlearned) need, for social contact and nurturance "is essential for later mental health" (Bowlby,1969,p.xi). Bowlby applies the ethological principal of 'critical periods' (Lorenz,1932), to human infant development and suggests that human beings have psychological needs which are themselves inborn (as with Lorenz' observed critical period for goslings' attachment to a maternal object); and, which, if allowed expression and satisfaction will facilitate the process of healthy psychological development.

REM Sleep and Dream Research.

Several workers in the area of laboratory sleep and dream research the considered the question, 'Whence comes the psychological impetus for dreaming, and for the distinctive symbolic nature of dream imagery?' (Ephron, Carrington, 1966, Roffwarg, Muzio, Dement, 1966, Jouvet, 1973, 1974, Cohen, 1979). Of note is the consensual nature of their answers; i.e., that elements of personality existing outside conscious awareness are involved in both. More to the point, these sleep and dream researchers agree that while dream imagery is almost

invariably derived from one's present and past experience, collective or non-personal unconscious psychological processes are the impetus behind the dreaming process. Jouvet has stated that "our brains are submitted during dreaming to some coding during which archaic, primarily inherited programming serves to reorganize a kind of basic circuitry responsible for the so-called personality" (Jouvet, 1973, p.31). inner core of Roffwarg, et.al. have posited that "the formation of dream imagery may involve a process by which the cortex 'fits' sensory images to discharge patterns of the brainstem, that were established before the accumulation of such sensory-based experience" (Roffwarg, et al., 1966, p.13). Cohen asserts that as much a 'reconstructive' process dreaming is 'reproductive' one, and argues that "the cortical functions" peculiar to REM might be thought of as the biological substrate of Jung's concept of instinctive (i.e., species or collective) knowledge, expressed as a tendency towards archetypal expressions" (Cohen, 1979, p.133). Cohen, noting Jung's assertion of a second level of unconscious also being involved in the dreaming process, states that "Jung's hypothesis that there is an inherited disposition toward. symbolic representation in dreams of phylogenetically derived organismic characteristics is, at the least, theoretically consistent with ' the argument presented here" (Cohen, 1979, p.74).

Neuropsychology.

Pribram (1959,1976,1978) has also posited the heuristic

value of personal and collective unconscious psychological processes. He concurs with those, above, in the areas of selective attention and subliminal perception that "consciousness is a state that results from attentive processes...it is itself caused" (Pribram, 1978, p. 573). Pribram posits that "the interaction between brain and mind occurs by way of organizing influences. Brain structure (including personality organization) is influenced by cultural events which in turn become structured by brains" (1978, p. 579). And, toward the end of understanding the nature of this interactive relationship Pribram states,

The question I am asking is whether there...is indicated the existence of some more universal 'software'...a collective unconscious along the lines proposed by Jung - much as culture can be conceived as the collective conscious 'software' produced by man (Pribram, 1978, p.581).

While hardly constituting proof that there exist personal and collective unconscious psychological processes, the above neuropsychological literature presents empirical and theoretical data that are at least consistent with their hypothesized existence. As well, they appear consonant with Jung's assertions about the role of personal and collective unconscious processes with respect to ego-consciousness; i.e., their fundamentally interactive and stimulative role towards it. Last, and of more specific felevance to this thesis, the data are consistent with the involvement of two distinct levels of unconscious processes in the dreaming. Dimensions of Personality and Psychological Well-Being.

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investigating the personal psychological nen significance of recalled dream content one must needs consider its context within the overall individual personality. In assess whether recalled dream content reflects order to processes of psychological adaptation of conflict it is necessary to specify the salient, overall dimensions ŏf psychological well-being. The recent literature in both of these areas - and their implications for the theoretical efficacy of analytical psychology personality theory is discussed below.

Comparative Personality Theory Literature.

In one of the more comprehensive comparative evaluations Maddi appraised the (25) major theories of personality against "... the formal and substantive characteristics that the good theory of personality will have" (Maddi, 1980, p. 643). Included here were criteria that the ideal theory of personality should include both core levels (basic, shared structural elements) and peripheral levels (which define the dimensions along which individuals can vary, as in personality typologies), the dynamics of personality development, statements of inclusion of what Maddi terms a "data language" (p.645) (i.e., enabling the operationalization and testing of core hypotheses), and strong support for its core precepts in the empirical literature (Maddi, 1980, pp. 644-645).

Upon reviewing a major area of this empirical literature - factor analytic personality research (e.g., Cattell, 1972, Coan, 1974, Costa and McCrae, 1978, 1980a, b, c, 1982, Eysenck and

Eysenck, 1969, 1977, Guilford, 1975, 1977) - Maddi notes the existence of a broad consensus regarding the two basic factors, or dimensions, of personality: introversion v. extraversion; and, 'emotional health v. neuroticism (Maddi, 1980, p. 463). Posing the question of whether these empirically derived personality dimensions are consistent with any of the extant personality theories, Maddi concludes that only three of the 25 theories "fit the types derived from the factorial studies very well...those of Adler, Maddi, and, to some extent, Jung" (Maddi, 1980, p. 464).

With respect to Jungian personality theory, Maddi states that although his emphasis on introversion-extrayersion is supported in the empirical literature it is less clear how Jungian personality theory fits the second basic empirical dimension (emotional health-neuroticism) (1980, p. 465). Maddi asserts, however, that, excepting the surfeit of empirical research testing core analytical psychology theory postulates Jungian personality theory does indeed posit elaborate core and peripheral levels of personality, dynamics of personality development, and at least the rudiments of a 'data language' that is beginning to generate increasing empirical support. (Maddi, 1980, pp. 67-87, 501-508).

The factor analytic research by Coan (1974) is considered to offer an empirically sound description of basic personality factors and their expression in the optimal personality (Maddi, 1980, p.458). While Coan also concludes that there are two basic personality factors, his findings regarding

characteristics of the 'optimal' personality are of note. These include: (i) there is no one dimension of ideal versus non-ideal personality characteristics along which individuals could be ordered; (ii) a clear requisite for the full realization of one's potential is the flexible utilization of the full range and various modes of one's personality; (iii) though stasis in one's pattern of living is undesirable at any point in life, stability of personality organization is necessary if one's full range of potentials are to be realized. (Coan, 1974, p.230).

Coan's assessment of the efficacy of analytical psychology personality theory is much less equivocal than Maddi's. He considers Jungian personality theory "the most comprehensive experientially based treatment of human personality that has been presented to date" (Coan, 1974, p.58). And, of Jung's theorizing about the optimal (or, individuated) personality Coan writes, "The first and still the most comprehensive (statement of) personality development is found in the work of Jung, who sees differentiation and integration as the two basic components of the process of individuation (Coan, 1974, p.202).

Costa and McCrae (1978,1980a,b,c,1982), building upon the factor analytic personality research of Coan develop the case that a comprehensive theory of personality must combine both a developmental typology, which describes "the dynamic organization of the personality, (and) the characteristic principles and processes by which individuals interpret

experience" (1980b, p. 1188); and, a dispositional model, which describes "the individual's characteristic levels of (psychological traits such as) anxiety, hostility, sociability and assertiveness"(1980b, p.1188). Though Costa and McCrae do not offer a comparative analysis of the major personality theories, both Maddi (1980) and Coan (1974) note analytical psychology personality theory possesses this combination of developmental typology and dispositional model.

Analytical psychology theory's developmental typology, or theory of psychological types (Jung, 1921) (p.45, below) is one of the relatively few empirically addressed aspects of Jungian (Stricker, Ross, 1964, Shapiro theory and Alexander, 1969, Carlson Levy,1973, Carlson,1980, and Levenson, Grav, Ingram, 1976, Carlyn, 1977). Still, the support generated for this aspect of Jung's theory is substantial. (As well, Jung's dispositional model of neurosis (Jung, 1921)(pp. 47-49) has been operationalized and subject to empirical test, also with results (Eysenck, 1967, Evsenck positive and Eysenck, 1968, 1969, 1977). However, At must be said that much of analytical psychology personality theory remains largely untested in the personality research literature. This has been noted both from within (Meier, 1972, Mattoon, 1977) and without analytical psychology circles (Carlson and Levy, 1973, Coan, 1974, Maddi, 1980).

Dimensions of Subjective and Psychological Well-Being.

The recent research into dimensions of subjective and

psychological well-being, conducted by many of the same workers involved in the factorial study of personality, has evolved a general consensus regarding their basic dimensions (Veroff, Feld, Gurin, 1962, Bradburn, 1969,1974, Beiser,1974, Coan,1974, Moriwaki,1974, Eysenck and Eysenck, 1977, Guilford, 1977, Palmore, Kivett, 1977, Costa and McCrae, 1978, 1980a, b, c, 1982, Bryant and Veroff, 1982). As summarized in Costa and McCrae (1980a), subjective well-being is generally agreed to comprise two principal dimensions, extraversion and neuroticism. The consensual dimensions of each are,

Extraversion: vigor or activity;

social participation or sociability;

positive affect;

(Smith, 1961, Wessman, Ricks, 1966, Guilford, 1976, Eysenck, Eysenck, 1977, Costa, McCrae, 1980a).

Neuroticism: anxiety;

^o diminished ego-strength;

somatic symptoms or self-rated health;

negative or dysphoric affect;

(Veroff, et al., 1962, Bradburn, 1969, Cattell, 1973 Eysenck, Eysenck, 1968, 1969, Coan, 1974, Guilford, 1976, Costa and McCrae, 1980a).

is important to note the consensual view in this It literature subjective well-being and psychological that mental health), well-being (i.e., emotional or though conceptually distinct. overlapping held to are be held to comprise Psychological well-being is only the psychological health/neuroticism dimension of subjective

well-being. That is,^{*} though the data indicate a strong correlation between positive measures of psychological distress (i.e., anxiety, depression) and the dimension of neuroticism, there has been no consistent demonstration in these data of a significant inverse relationship between these psychological distress measures and the extraversion dimension. In fact, they indicate that the two dimensions of subjective well-being are statistically "independent and virtually uncorrelated" (Costa and McCrae, 1980a, p. 676). Costa and MgCrae state that "the independence of extraversion and neuroficism argues that introverts are no more prone to anxiety, depression and anger than are extraverts" (p.676); and, they seriously question whether the extraversion dimension of subjective well-being is "meaningfully related" individual's overall mental health (Costa an to and McCrae,1980a, p.676).

As described below, analytical psychology theory is concerned with psychological well+being primarily and neuroticism (or, neurosis) as regards the dynamic personality contributing to its emergence, différential processes individual expression (i.e., as regards the different personality types, such as introversion and extraversion) and, its resolution. As a result, rather less emphasis is placed in the Jungian theoretical literature on neuroticism's core characteristics across individuals. Nonetheless, review of the Jungian literature does evince recurring descriptions of several core features or symptoms of neurosis. These include:

anxiety (Jung, 1943,p.24, Adler, 1948,p.170, Jacobi, 1959,p.29, Whitmont, 1969,p.292);

diminution in openness, reality adaptation and flexibility in dealing with one's social environment (Jung, 1939,p.385, Adler, 1948,p.170 Jacobi, 1959,p.28, Whitmont, 1969,p.292);

diminution in openness, reality adaptation and flexibility in dealing with unconscious elements of one's personality (Jung, 1939,p.345, Adler, 1948,p.169, Jacobi, 1959,p.17);

- somatic symptoms (Jung, 1921,p.337, 1931,p.109, Adler, 1948,p.171, Mattoon, 1978,p.10);
- dysphoric affect, depression (Jung, 1938,p.216, Adler, 1948,p.172, Whitmont, 1969,p.288);

social isolation (Jung, 1950,p.109, Adler, 1948,p.170, Mattoon, 1978,p.10).

On balance, the comparative personality and psychological well-being literatures offer data that are again consistent with core postulates of analytical psychology personality theory.

Analytical Psychology Dream and Personality Theory.

* As noted earlier, an important advantage of analytical* psychology dream theory is its integral linkage within a major 'operational' theory of personality (cf. Maddi,1980, linkage Burton, 1974, Coan, 1974). This within Jungian personality theory enables it to address theoretical questions involving both recalled dream content and dimensions of overall personality from within a single, unified theoretical rubric. This serves to eliminate the often vexing problem in theoretical dream' research of non-equivalence of core constructs between a theory of dream function and a separate

theory of personality, or overall psychological functioning.

this section analytical psychology dream "In and presented. personality theories are Given the latter constitutes the overall context within which the former is viewed, it is presented first. Of especial note are Jung's conceptualizations of the dynamic organization of the human psyche, the features distinguishing neurosis from normal and optimal functioning in individuals, dreaming as a fundamental mode of communication from unconscious elements of the psyche to ego-consciousness, and the psychological significance attached to the experience of a recurrent dream. Analytical Psychology Personality Theory.

Analytical psychology personality theory conceives the human psyche as comprising a set of core structural elements or levels of awareness which possess specific modes of expression and dynamic organization (Jung, 1931a,b, 1938ar 1951, 1959, Whitmont, 1954, 1968, Jacobi, 1939. 1969). Structurally, Jung posits the psyche to exist in three levels: eqo-consciousness; the personal unconscious; and, the collective unconscious (also called the objective psyche). (n.b. A fourth structural element of the psyche, termed the Self, is posited by Jung to gradually emerge over the course of one's adult psychological development. The differentially emergent aspect of the Self, however, and its dependence on the dynamic interplay of ego-consciousness and the two levels. of unconscious processes set it apart from the above three personality structures.)

Ego-consciousness is the term ascribed by Jung to those aspects of one's personality - and, of one's relatedness to the surrounding social environment - of which one is aware. It is separable into its two constituents: consciousness, or one's overall field of intrapsychic and interpersonal awareness; and ego, or "the center of the individual's field of consciousness, that provides the unity and continuity for the personality" (Mattoon, 1978, p. 17).

Perhaps the most distinguishing characteristic of analytical psychology personality theory is its assertion that two separate levels of unconscious processes exist in the psyche. The first, the personal unconscious, is posited to contain all those individual aspects of one's personality not currently within the field of conscious awareness. Jung describes the personal unconscious as "comprising all the acquisitions of personal life, everything forgotten, repressed, subliminally perceived..." (Jung, 1921, p. 485). Chief among these personal unconscious 'acquisitions' are personal sychological material that is at present incompatible with the individual's current ego-consciousness, aspects of one's conscious personality that are currently under-valued, and nascent, gradually emergent aspects of a center for the entire psyche, - termed the Self - that have yet to be experienced. Jungian theory holds the personal unconscious to be an important, requisite counterpoint (compensating personality structure) to eqo-consciousness; and, posits the depth of personal psychological material within the personal

unconscious to be always greater than that currently in ego-consciousness.

The second level of the unconscious, and the most basic personality structure in Jung's model, is the collective unconscious. The collective unconscious is posited to contain by far the greatest amount of psychic material, but it is also the one element of the psyche never within direct reach of ego-consciousness. The personal unconscious remains always a buffer between the contents of the collective unconscious called by Jung the archetypes - and the level of conscious personality. The archetypes are the one element of the psyche to be considered to originate and exist independently of individual experience. That is, the archetypes, "do not originate in personal àcquisitions, but in the inherited structure of psychic functioning in general, i.e., in the inherited structure of the brain," (Jung, 1923, p.485)..

The collective unconscious and its constituent archetypes lie at the heart of analytical psychology theory's postulations of the process of psychological development termed the individuation process. The archetypes are assigned. a central role in Jungian theory due, to their postulation "as...universal, inherited...inborn modes of functioning that constitute, in their totality, man's nature," (Junq, 1952, p. 328). That is, the archetypes of the collective unconscious are held to be the primal psychic material out of which emerges the personal unconscious and, out of it, \sim eqo-consciousness.

Jungian Type Theory.

One of the better known aspects of Jungian personality theory is Jung's theory of psychological types (Jung, 1923). In it Jung outlines his view of the major dimensions along which conscious (and, to a lesser extent, personal unconscious) personality is organized. Jungian type theory describes overt personality in terms of four dimensions:(i) introversion v. extraversion, or one's basic orientation either inwards, towards subjective experience, or outwards, towards the external environment; (ii) judging v. perceiving, or the preferred mode of processing experience, either rationally sensorially (perceiving); (iii) thinking v. (judging) or the dominant mode with which one judges feeling, or experience; and (iv) sensation , v. intuition, or, one's preferred perceptual mode (Jung, 1923, pp, 330-407). From these four polar dimensions Jung derived sixteen basic variations, or psychological types; "each based upon a particular of dominant combination attitude (introversion v. extraversion), and dominant and auxiliary function (judging: 🐊 thinking v. feeling, perceiving: sensation v. intuition), which characterize the individual's consciously developed preferences" (Carlson and Levy, 1973, p. 561).

As mentioned earlier, analytical psychology type theory is one aspect of Jungian theory currently being addressed in the personality research literature (Stricker and Ross, 1964, Myers, 1964, 1975, Carlson and Levy, 1973, Carlyn, 1977, Carlson, 1980). And, thus far the data adduced consistently

support both the construct validity and discriminant validity of Jungian psychological type theory.

While Jungian type theory describes the static organization of one's conscious personality, it is Jung's postulation of a fundamental organismic motivation for optimal psychological development - individuation - that is the core of his dynamic conceptualization of personality organization. At the root of this construct is Jung's assertion that within the psyche there is a ubiquitous push for full realization of one's psychological potential. That is, Jung holds the psyche to be dynamically organized towards the flow of personally significant information not only from the social environment into ego-consciousness, but, especially from personal and collective unconscious ° levels °of personality into eqo-consciousness. Jung has written of the individuation motive that, "in general, it is the process of forming and specializing the individual nature; in particular, it is_the development psychological of the individual as differentiated being from the general, collective psychology" (Jung, 1923 p.448).

Individuation can thus be conceived as the underlying theme of one's psychological existence. In it ego-consciousness is developed and expanded through its interaction with the personal and collective unconscious. And, to the degree that these channels of communication between ego and unconscious (and, ego and the social environment) are

encouraged to develop, the individuation process and the development of a central focus for the entire psyche (the Self) will be facilitated and enhanced. Neurosis.

As stated above, optimal psychological development Ain Jung's model depends upon the development of a strong ego-consciousness, with open links to both the social environment and unconscious elements of personality. However, in individuals interaction between where the eqo and unconscious is constricted, and ego-consciousness' awareness of unconscious aspects of the psyche is blocked, a psychic imbalance occurs that can result in the development of a neurosis. Neurosis as conceived in Jungian theory (Jung, 1923, 1943, Adler, 1948, 1961 Jacobi, 1959, Whitmont, 1969, Mattoon, 1978), is defined as, "an impasse... in the individual's conscious adaptation to life...due to a conflict between a conscious attitude that has become too narrow and strong unconscious drives (that are blocked from expression to consciousness)" (Adler, 1961, p.44).

The key element in Jung's view of an individual's development of a neurosis is the sharp reduction in the number of interactive channels kept open by ego-consciousness with the social environment, and, especially, with the unconscious levels of the psyche. The typical result is that ego-consciousness, in its attempts to interact independently with the external social environment, is constricted by the intrusion of unassimilated personal and collective unconscious

material. The apparent paradox of ego-consciousness in neurosis is that its executive ability (i.e., ego-strength) is markedly diminished when it attempts to function as an isolated entity; but, when it does not attempt to be the sole controlling personality element, and instead operates in concert with the unconscious aspects of personality, its executive ability is enhanced.

The key to the resolution of neurosis in Jungian theory is the willingness of eqo-consciousness to re-open its interactive links with the personal and collective unconscious: and, thus re-establish the to necessary homeostatic balance between it and them. It is important to note here that from within the Jungian model neurotic symptoms are seen as serving a dual function: the first, described above, is to signal a constriction of the communicative channels between ego-consciousness and the. unconscious individuation instinct (specifically, a blockage of the emanating from the collective unconscious); the second is the identification - through specific recurring patterns in dream content and other spontaneously occurring fantasy productions - of the specific area 'of neurotic conflict/blockage, as well the re-alignment required of ego-consciousness as to re-establish the necessary homeostatic psychological balance.

Thus, for Jung the emergence of neurotic symptoms are as much an opportunity (to correct a developing intrapsychic imbalance and resume the individuation process in earnest), as an indication of disruption of some of one's normal

psychological processes. And, an important element in both identification of core aspects of one's neurotic conflict and resumption of one's process of optimal psychological development, lies in attending to perhaps the most potent, regularly open channel of communication with one's unconscious, dreams.

Analytical Psychology Dream Theory.

"...dream psychology opens the way to a general comparative psychology from which we hope to gain some understanding of the development and structure of the human psyche." (Jung, 1948a, p. 34)

"A dream that is not understood is a mere occurrence; understood, it becomes a living experience." (Jung, 1934, p. 123)

Analytical psychology dream theory is considered by Jung a conherstone of his overall theory of personality: Jung's has thus been one of the most forceful voices arguing for the psychological significance of dreams. In this fundamental review four basic aspects of Jungian dream theory will be examined: Jung's definition and functional conceptualization of dreaming and dream language (or, dream content); the hypothesized 'compensatory' function of dreams within the overall psyche; Jung's view of the relationship of dreams to psychological well-being; and, Jung's postulation of the specific psychological significance of recurrent dreams. theoretical and experimental Following this, the core hypotheses of this thesis are presented.

Definition and Functional Conceptualization.

In Jungian theory the dream is defined as "a spontaneous

portrayal, in symbolic form, of the actual situation in the unconscious" (Jung, 1948a, p.49). That is, dreams are considered to be salient/ psychological experiences, emanating regularly and without conscious effort from unconscious levels which are largely symbolic- representational of personality, which serve to convey into consciousness in form, and, unconscious psychological material of personal significance to the individual. In its assertion of the unconscious origin of . dreams, analytical psychology theory holds that, "the dream represents a point of view from outside consciousness but from within the whole personality" (Dallett, 1973, p. 413).

distinctive feature of dreams •their is symbolic-representational form. Jung posits that, "dreams convey to us in figurative language thoughts, judgements, views, directives and tendencies which were unconscious" (1948a, p. 34); and, that the "figurative language of dreams is a survival from an archaić mode of thought" (1948a,p.34). And, as noted earlier, Jung holds dreams to be symbolic because that is the primary mode of - organization and expression of contents of the personal and collective unconscious. Though thought to originate in unconscious elements of personality, .the individual dream is not considered to be a reflection of unconscious contents in general, but only of certain, associatively-linked material that have current psychological significance for the dreamer.

Regarding the relative contribution in dreams of personal collective. unconscious (i.e., archetypal) material;

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Jungian dream theory holds that "any given dream may have meaning for the dreamer which is primarliy personal and developmental, primariliy collective or universal, or, very complex interweaving two.levels often a of the of unconscious..." (Greene, 1979, p. 306). A core characteristic of personal unconscious dream content is subjective sense of familiarity, or recognizability from recent or previous personal experience. This does not "mean, however, that such dream content has a pleasant affective tone; as, not all that is familiar is necessarily pleasant or desirable. The core characteristics of collective unconscious, or archetypal, dream content are posited to be its affective intensity, irrationality, removal bizarreness and from everyday . experience, and non-personal, mythological parallels (Jung, 1848a, p. 66, 77, Kluger, 1975, p. 22).

Compensation.

Dreams are posited by Jung to play a 'compensatory' role' in personality. That is, "the dream confronts the ego with what is now most necessary to its (ego's) attitudes into accord with the reality of the whole personality, and to restore intrapsychic balance" (Dallett, 1973, p.413). In fact, the raison d'etre for dreaming in the Jungian model is to facilitate the individuation process by imparting to consciousness unconscious psychic material that compensates or balances one's conscious attitude. Compensation is thus the process hypothesized by Jung by which dreams help to maintain (or re-establish) one's overall balance between conscious and

unconscious levels of the psyche.

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A common presumption about Jung's dream-compensation hypothesis is that for dreams to be compensatory to one's conscious attitude they must present content opposite or alien to it (e.g., Schwartz, et al., 1978, Domino, 1976). Though a detailed presentation of Jung's postulation of the possible range of compensatory dream content appears elsewhere (cf. Jung, 1948a, pp. 39-43), one should note an important caution made by Jung about too-simplistic reading of his dream-compensation hypothesis.

On the basis of compensation theory one would be inclined to assume, for instance, that anyone with a too-pessimistic attitude must have very cheery and optimistic dreams. This expectation is true only in the case of someone whose nature allows him to be stimulated and encouraged in this way. But, if he has a rather different nature, his dreams will assume a much blacker character than his conscious attitude. They can then follow the principle of like curing like.

It is therefore not easy to lay down any special rules for the type of dream compensation. Its character is always closely bound up with the whole nature of the individual. (Jung, 1948a, pp. 39-40).

Jung's elaboration noted, the basic thrust of dream compensation lies in its contributing to the individuation process by providing to consciousness unconscious material which, if integrated into ego-consciousness, helps maintain the personality's overall homeostatic balance.

Dreaming and Psychological Well-Being.

In the last analysis most of our difficulties come from losing contact with our instincts, and with the age-old unforgotten wisdom stored up in the unconscious. And where do we make contact with this? In our dreams. (Jung, in Mattoon, 1978, p. 317).
The principal role ascribed by Jung to dreams is in their unconscious material into presentation of compensatory one's eqo-consciousness auqment current conscious to awareness. If ego-consciousness is in approximate balance with unconscious aspects of personality, Jung asserts that one's dreams will, reflect processes essentially consistent with those already in ego-consciousness. However, if there occurs a schism between ego-consciousness and the unconscious (as in a neurosis), one's dreams are likely to reflect this in presenting material strongly compensatory to consciousness (Jung, 1948a, p.74).

Analytical psychology theory thus holds by carefully attending to the degree to which individuals' dreams tend to complement or challenge the attitudes of ego-consciousness, they can gain new insight into their current overall psychological well-being. And, because unconscious elements of personality are by definition outside ego control, dreams are hypothesized by Jung to be better able to afford a perspective of one's current overall well-being that is largely free of 'ego-bias' (Schneider, et al., 1979, p.226).

Recurrent Dreams.

Though dreaming is a mental state noteworthy for the diversity and variation of its thematic content, there infrequently occurs a kind of dream - a recurrent dream - that seems to flout this trend. Recurrent dreams (as distinguished from dreams possessing some repetitive element or motif) are distinguished by their repeated occurrence, in toto, in one's

Jung considers recurrent remembered dreams. dreams "of specific importance for the integration of the (overall) psyche" (Jung, in Adler, 1971, p.93). Recurrent dreams are held to point to a psychological conflict "that has been in existence for a long time and is particularly characteristicthe (conscious) attitude of the dreamer" of (Jung, in Adler,1971, 9.93). As such, recurrent dreams are posited by Jung to indicate stasis in an important aspect of one's psychological development; and, to signal the conflict remains posits that once the focal as yet unresolved. Jung psychological or personality conflict is resolved the recurrent dream will cease (Jung, in Mattoon, 1978, p.84). Thus, while the ongoing experience of a recurrent dream is hypothesized to be related to the experience of psychological distress (i.e., neuroticism), the cessation of a recurrent dream is held to be related to an elevation in one's overall psychological well-being. However, Wozny (1980) cautions that within the Jungian model the cessation of a recurrent dream is not necessarily held to reflect an immediate increase in one's perceived well-being. Rather, one is more likely to observe, after a period of maintained cessation of the person's previously-recurrent dream (c. 1 year), a relative increase in psychological well-being (i.e., perceived relative to still-recurrent dreamers)(Wozny, 1980, personal communication). The following, then, are the core theoretical and experimental hypotheses of this research.

Core Theoretical Postulate

Recurrent dreams serve to indicate stasis - and the existence of conflict - in an important aspect of one's psychological make-up.

Principal Experimental Hypotheses

- (1:) Recurrent dreamers will achieve scores on measures of psychological well-being indicating, relative to Previously-recurrent and Non-recurrent dreamers: (i) Elevated neuroticism, anxiety, dysphoric affect, life stress, and somatic distress; (ii) Diminished personal adjustment.
- (2.) Content analysis of the dreams of Recurrent dreamers will indicate, relative to Previously-recurrent and Non-(i) recurrent dreamers: Lesser ratios of interactions, affiliative-to-aggressive social positive-to-negative affect, and success & qood fortune-to-failure & misfortune experiences; (ii) Greater frequencies of anxiety and hostility-toned content.
- (3.) Archetypal dream content (as operationalized by Kluger, 1975) will be significantly less prevalent in the Recurrent dreamers' dreams.
- (4.) Previously-recurrent dreamers will achieve scores on the measures of psychological well-being indicating, relative to the Recurrent and Non-recurrent dreamers: (i) Diminished neuroticism, anxiety, dysphoric affect, life stress, and somatic distress; (ii) Elevated personal adjustment.
- (5.) Content analysis of the dreams of Previously-recurrent dreamers will indicate, relative to Recurrent and Non-recurrent dreamers: (i) Greater ratios of affiliative-to-aggressive social interactions, positive-to-negative affect, and success & good fortune-to-failure & misfortune experiences; (ii) Lesser proportions of anxiety and hostility-toned content.
- (6.) Archetypal dream content will be significantly more prevalent in Previously-recurrent dreamers' dreams.
- (7-1) Dream archetypality and waking neuroticism will be inversely related for all participants irrespective of group membership.

Method

research was designed as a tiered, static group The comparison comprising three experimental groups (cf. Campbell and Stanley, 1963, p. 15). The present design and procedure derived in large part from an earlier pilot study (n=13) of recurrent dreamers (Brown, 1979). The recurrent dream group (RD) was composed of persons then experiencing a recurrent dream (as defined earlier) of at least six months in duration and which was perceived to be unchanged and ongoing. The past-récurrent dream group included those who (PRD) had experienced a recurrent dream in adulthood of the same minimum duration as above but for whom the dream had ceased to recur (and maintained its absence for a minimum perod of one year). The non-recurrent dream group (NRD) comprised those persons having never experienced a recurrent dream in adult life.

level of comparison The first tier or (Table 1) contrasted the RD against both of the other experimental groups (PRD & NRD) on the well-being and the dream content The second contrasted each experimental group with measures. the other (i.e., RD v. PRD, RD v. NRD, and PRD v. NRD) on the same well-being and dream content dimensions. Thus in the first comparison there is a test of the principal experimental hypothesis that recurrent dreamers experience a diminution in . perceived psychological well-being when compared with other non-recurrent dreamers; and, that this diminished sense of well-being will reflect both in responses to standard

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Table 1 Experimental Design

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Comparison Level I.

RD , v. PRD & NRD

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on: (i) Psychological Well-Being Measures (6) (ii) Dream Content Ratings (6) (iii) Combined Measures and Ratings (12)

Comparison Level II.

on:

NRD V. PRD

RD

I	(i)	Psychological	Well-Being	Measures	(6)	
	(ii)	Dream Content	Ratings		(6)	
	(iii)	Combined Measu	ires and Rai	tinas	(12)	

RD : Recurrent Dream Group PRD: Past-Recurrent Dream Group NRD: Non-Recurrent Dream Group

psychological tests and in the content of the remembered dreams. The second set of comparisons, building on the first, assessed also whether the resolution and maintained cessation of a previously recurrent dream has more psychologically adaptive implications than either the continuing experience or the non-experience of a recurrent dream in adulthood.

Participants were recruited by newspaper and radio announcements in a large metropolitan area (Montreal, Quebec). Each announcement included mention that 'this research will be investigating possible connecting links between peoples' remembered dreams and their current life situations', and, 'in experiencing a recurrent dream addition to those now individuals are welcome to participate who have never had such a dream as well as those who may have had such a dream in the past' (Appendix II). Potential participants were made aware of the type, length and general conditions of participation; and, that throughout the - confidentiality of their participation would be maintained.

Interested persons were asked to contact the researcher, at which time each was briefed regarding the general purpose of the study and the specifics of participation. An appointment was then scheduled for 'those who wished to take part; the individual could there examine the complete set of research protocols (the dreaming questionnaire, the psychological tests, the 'Dream Record' cards, and the 'Informed Consent/Confidentiality of Participation' form) (Appendix II). At this point the person made the (revocable)

committment to participate in the study. 250 people called to express interest in the research. Of those, 148 scheduled a pre-participation appointment, 121 of whom appeared, met the researcher and received the protocols. 76 persons completed all three phases of the research.

Participation entailed the completion in sequence of the three sets of research protocols (Table 2). The first contained a 'Dreaming Questionnaire' and the (6) measures of psychological well-being. The second (Part II) entailed recording on prepared cards all dreams remembered each day for fourteen consecutive days (as soon upon waking as possible). Participants were instructed to record on each 'Dream Record' card in the appropriate space: the dream as completely as they could recall it; their description of its major theme and feelings; the date and time the dream was recorded; the wholeness and clarity of their recollection of the dream; and, the time elapsed between waking and their recording of their remembered dream(s).

Upon completion of their fourteen-day remembered dream time- sampling participants completed the final set of research protocols (Part III). These included a re-administration of the Dreaming Questionnaire and, with one exception a re-administration of the (6) well-being measures. The Symptom Check-List 90-R (SCL90-R) was included only in Part III.

Owing to the nature of the phenomena under study participant self-report data were employed extensively

Table 2 Experimental Procedure

Pre-Participation Britefing (45 minutes) Description of Research Procedure Review of Research Protocols in Parts I,II,III Completion of 'Informed Consent/Confidentiality' Form

Part I (100 minutes, completed at home, unaided, over two consecutive evenings, between 7 - 9p.m.) Demographic and Dreaming Questionnaire State-Trait Anxiety Inventory (Spielberger, et al., 1970) Social Desirability Scale (Crowne, Marlowe, 1964) Eysenck Personality Inventory (Eysenck, Eysenck, 1968) Adjective Check-List (Gough, Heilbrun, 1965) Life-Events Inventory (Paykel, Uhlenluth, 1972) Beck Depression Inventory (Beck, et al., 1969) Myers-Briggs Type Indicator (Briggs, Myers, 1962)

Part II (completed each day over two weeks, at home, at waking, on prepared 'Dream Record' cards) Time-sample of each remembered dream (dream report) occurring during the 14-day dream collection period. Each dream report recorded by participant at or near waking, and coded additionally for:

> Date and Time of recording dream report Time Elapsed from waking to recording dream report

Estimated Completeness of dream report Estimated Clarity of dream report

Part III (100 minutes, còmpleted at home, unaided, over two consecutive evenings, between 7 - 9p.m.)

Demographic and Dreaming Questionnaire State-Trait Anxiety Inventory (Spielberger, et al., 1970) Social Desirability Scale (Crowne, Marlowe, 1964) Eysenck Personality Inventory (Eysenck, Eysenck, 1968) Adjective Check-List (Gough, Heilbrun, 1965) Life-Events Inventory (Paykel, Uhlenluth, 1972) Beck Depression Inventory (Beck, et al., 1969) Symptom Check-List 90-R (Derogatis, 1976)

Post-Participation De-Briefing (30 minutes)

Description of study, including:

Purpose of the research

Major theoretical and experimental hypotheses Expected findings

Answer participants' questions about the research

throughout, both in the psychological test phases (Parts I and III) and in the dream report collection period (Part II). This mandates consideration of the risks inherent in employing participant self-reports as experimental data, of the current extent of use of self-report data in the psychological literature, and of techniques for maximizing incentives to individuals for accurate, veridical self-representation.

As chronicled elsewhere (Hersen and Bellack, 1981, 1977, Nelson, 1977, Thoresen and Mahoney, 1974), because of their status as an unobserved process self-report data can be subject to criticisms including:

(i) questions regarding their reliability and validity;

- (ii) distortion through bias or mis-representation;
- (iii) low or modest correlations with concurrent physiological and/or behavioral measurement;
- (iv) under- or over-representation due to perceived demand characteristics and social desirability factors.

These potential pitfalls notwithstanding, self-report data - in the form of questionnaire measures, behavioral and personality scales, reports of private/subjective experience, and clinical self-monitoring - is increasingly employed in psychological (Hersen and Bellack, 1981, 1977, research Mahoney, 1977, Twentyman, McFall, 1975, Shelton, Ackermen, 1974). The use of self-report measures as credible data-gathering techniques (with concomitant subject pre-exposure to the reporting format and procedure), has acquired advocates in areas including behavior therapy interventions (Nelson, 1977, Thomas, 1974), social behavioral research (Twentyman and

McFall,1975), pain recognition (Hilgard,1969), and social psychological research (Walsh,1967).

- (i) subjects' self-reports are legitimate behaviors ion themselves, and are, not infrequently, the primary behaviors of interest;
- (ii) self-reports have not been shown to be any more unreliable or invalid (when carefully employed) than other types of psychological (especially clinical psychological) measurement.

Even so, special care must be taken in design, selection and application of self-report methodologies to maximize the likelihood of accurate and veridical participant self-representation. Such care would include:

- (a) guided pre-exposure/pre-training of participants regarding format, response orientation (or 'set'), and specific instructions for completing the self-report measures (Nelson, 1977, Thoreson and Mahoney, 1974);
- (b) design and selection of self-report measures with clear formats and discriminable response choices (Nelson, 1977);
- (c) design and selection of self-report measures maximizing concurrent reporting and minimizing retrospective-only self-reporting (Nelson, 1977);
- (d) inclusion of measure(s) assessing perceived social desirability constraints (Hersen and Bellack,1977,1981);
- (e) pairing, when available, self-report measures with observer ratings, overt behavioral and/or psychophysiological measures of the criterion variable(s), (Hilgard, 1969);
- (f) enhance participants' perceived intrinsic motivation for responding on specific dimensions of self-report (Hersen and Bellack, 1977, 1981, Nelson, 1977);

(g) set apart (temporally, physically) participants'

completion of self-report measures from other concurrent activities (e.g., normal daily schedule) (Hersen and Bellack, 1981, Nelson, 1977);

(h) multiple administration of self-report measures to enhance reliability, representativeness and stability of participant responses (Hersen and Bellack, 1977).

Measures of Psychological Well-Being.

In line with the above delineation of core psychological well-being dimensions, the following (6) measures were employed in this research as criterion measures of individual psychological health/distress (or, neuroticism) (Table 3). Neuroticism.

. The EPI Neuroticism scale (Eysenck and Eysenck, 1968) i 24-item forced choice ('yes'/'no') measure of neuroticism as a global construct. The Neuroticism scale measures such psychological non-well-being elements as, "emotional lability and overreactivity, vague somatic upsets such as headache, "digestive troubles, insomnia, backache, anxieties, and other disagreeable emotional feelings" (Eysenck and Eysenck, 1968, p.6). The Neuroticism scale was designed not to presence of neurosis as psychodynamically indicate the s conceptualized but rather to reflect the disposition toward neuroticism as conceived by factor-analytic personality researchers (cf.pp.40-42, above).

From its frequent use in psychological research the Neuroticism scale has received substantial validation, Eysenck and Eysenck report test-retest reliability coefficients for

Table 3Measures of Psychological Well-Being:Scales Scored and Derived Variables

Well-Being Measure	Scale Scored	Derived Variable
Eysenck Personality Inventory (EPI) (Eysenck,Eysenck,1968)	Neuroticism (%ile)	Neuroticism 6
State-Trait Anxiety Inventory (STAI) (Spielberger, et al., 19	Trait Anxiety (T) 70)	Trait Anxiety
Beck Depression Inventory (BDÍ) (Beck,et al.,1969)	- Depression (rs)	Depression
Symptom Check-List 90-R (SCL) (Derogatis,1976)	General Symptom Index (T)	General Psychopathology Symptomatology
Life-Events Inventory (LEI) (Paykel, et al., 1972)	Life-Event Stress (rs)	Life-Event Stress
Adjective Check-List (ACL) (Gough,Heilbrun,1965)	Personal Adjustment (T)	Personal Adjustment

T: Standardized Score %ile: Percentile Score rs: Raw Score

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the two forms of the Neuroticism scale (Forms A and B) ranging from from .84-.97 at c. 9 month intervals. Test-retest reliabilities for Forms A and B combined range from .84-.94. Split-half reliability (Spearman-Brown coefficient) is reported by Eysenck and Eysenck as ranging from .87-.93 (1968).

Research assessing the construct validity of the Neuroticism scale suggests the scale does indeed measure the overall psychological dimension of health/distress. Several studies assessing the performance of the Neuroticism scale on clinically defined neurotic groups of various diagnosis (i.e., 'hysterical', 'obsessive-compulsive', 'depressed') are uniformly supportive; that is, each group was classified by their performance on the Neuroticism scale as significantly more psychologically distressed than normal population control. groups (Howarth, Brown, 1972, Howarth, 1973, 1976, Green, Walkey, 1980).

Eysenck and Eysenck also report data arguing for the concurrent validity of the Neuroticism scale. Inter-scale correlations with other global measures of neuroticism or psychological distress - including Cattell and Scheier's Neuroticism Scale Questionnaire, the California Psychological Inventory's Sense of Well-Being scale, and the Adjective Check-List's Personal Adjustment scale - are uniformly significant (p<.01) and range from .42-.74. Eysenck and Eysenck assert that "better overall psychological adjustment appears to be associated with low Neuroticism scores"

(1968.p.7).

Anxiety.

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The STAI Trait Anxiety scale (Spielberger, et al., 1970) is a 20-item self-report measure of anxiety. Each Trait Anxiety scale item has 4 possible response choices ('almost never', 'sometimes',' often', 'almost always') and is designed to tap one's general tendency to experience, "subjective, consciously perceived feelings of tension, apprehension, and heightened autonomic nervous system activity" (Spielberger, et al., 1970, p.3).

The STAI Trait Anxiety scale has also generated much reliability and validity data and is considered a sound measure of anxiety. Spielberger, et al. report test-retest reliability coefficients of .73-.86 in male subjects and .76-.77 in female subjects. Investigations of the construct validity of the Trait Anxiety scale have revealed that "two factors appear to comprise trait anxiety, one cognitive and one affective" (Loo,1979, Endler, Magnusson, 1976, Kendall, et al., 1976). These studies report data underscoring the essestial construct validity of the Trait Anxiety scale.

Support for the concurrent validity of the Trait Anxiety scale is also quite good. Spielberger, et al. report inter-scale correlations of the Trait Anxiety scale with other major anxiety measures - Taylor's Manifest Anxiety Scale, Zuckerman and Lubin's MAACL Anxiety Scale, and the IPAT Anxiety Scale - ranging from .52-.80 for women and from .58-.79 for men.

Intercorrelations between the Trait Anxiety scale and other more global measures of psychological health (e.g., the Mooney Problem Checklist Psychological Health Scale) are significant and range from .39-.62. Spielberger, et.al. thus consider the Trait Anxiety scale to be associated "with larger problems in overall personal adjustment" (1970,p.13). Depression.

The Beck Depression Inventory (BDI) comprises 21 different items or 'symptom categories', each with 4 or 5 possible response choices (Beck, et al., 1961, 1969). The BDI is designed to assess affective, behavioral, cognitive, and somatic symptoms of depression and has as its basic assumption that "the number, frequency, and intensity of depressive symptoms are directly related to the depth of depression" (Mayer, 1976.p. 365).

Miller and Seligman (1974) cite the test-retest reliability of the BDI as .74 ($\underline{n}=30$, 3 month interval). Split-half reliabilities have been reported to range from .53-.93 (Weckowitz, et al. 1967, Beck, et al. 1961).

An extensive review of the literature assessing the construct validity of the BDI appears in Beck and Beamesderfer (1974). These workers present data indicating that the BDI does indeed measure core cognitive, affective and somatic dimensions of depression; and, as one would expect given Beck's cognitive theory of depression the BDI appears particularly sensitive to cognitive manifestations of depression.

The concurrent validity of the BDF is supported by significant correlations with other major measures of depression (included among which are the MMPI D-Scale, the Hamilton Rating Scale of Depression, and the Zung Depression Scale). These inter-scale correlations range from .62-.73 (Mayer,1976). Beck (1970) has also presented data asserting the discriminant validity of the BDI both as a whole and with respect to its individual items. Mayer concludes that the BDI "does measure a concept of depression that resembles the generally accepted view...and the validity of the BDI has been supported by a wide variety of experimental approaches" (Mayer,1976,p.368).

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General Psychopathology Symptomatology.

The General Symptom Index (GSI) of the SCL 90-R (Derogatis,1977) is a general psychopathology symptoms measure employing all 90 items of the SCL 90-R. Derogatis describes the GSI as "an' indicator of the current level or depth of individual psychopathology," which measures the full spectrum of somatic, behavioral, affective and psychological symptoms assessed by the SCL 90-R (1977.p.12). Each of the SCL 90-R's 90 items is posed in terms of it potential occurrence in the past month (i.e.,' How much have you been bothered by this in the past month?'), and offers 4 response alternatives ('not at all','a little bit','somewhat', 'very much so').

Derogatis does not provide overall test-retest reliability coefficients for the GSI scale; however, he does present those for the 9 constituent scales which comprise it. The test-retest reliabilities range on these sub-scales from .78-.90 (\underline{n} =94, 1 week interval). Split-half reliabilities for the 9 GSI sub-scales range from .77-.90 (\underline{n} =219).

A thorough discussion of the construct validity of the GSI scale appears in Derogatis and Cleary (1977). In brief, the authors marshal support for consideration of the General Symptom Index a measure of overall psychopathology as symptomatology severity. The concurrent validity of the GSI is supported by its highly significant correlation with the Global Health Scale of the Middlesex Health Questionnaire (r=.92, n=130); and, by its sub-scale correlations with counterpart measures from the MMPI (r=.40-.75, n=119) (Boleloucky, Horvath, 1974, Derogatis, et al., 1976). The GSI scale thus represents the second of the psychological distress measures included in this research, along with the Neuroticism scale of the EPI.

Life-Event Stress.

The Life Events Inventory (Paykel and Uhlenluth, 1972) is a 61-item list of potentially experienced life events derived from Holmes and Rahe's 43-item Schedule of Recent Experiences (1967). The LEI items range from the presumably pleasant ('wanted pregnancy', 'promotion', 'becoming engaged') to the very unpleasant ('death of spouse', 'major financial difficulties', 'divorce'). Respondents check each life-event item occurring in the the past 6 months. The LEI can either be scored according to the total number of events checked or by a hierarchically organized system where each life event is

assigned a different stress weighting (Paykel and Uhlenluth,1972). The former was chosen for this /research in accordance with recent cautions in the literature about undue measurement distortion accompanying use of weighted life-stress scores (cf. Monroe,1982). Undesirable life-event totals were chosen over total life-event scores, because current research indicates they are more highly correlated with psychological well-being (Mueller, et al., 1977, Grant, et al., 1981).

^TPavkel and Uhlenluth do not provide test-retest reliability data for the LEI, However, data addressing the concurrent, discriminant and construct validities of the LEI indicate that it does indeed appear to reliably and accurately assess life-event stress; and, inter-scale correlations with life-event stress scales indicate other major the LEI possesses good concurrent validity (Paykel, 1979, Pavkel and Tanner, 1976, Monroe, 1982). As noted above, Monroe (1982) and Paykel and Tanner (1976) recommend that the LEI's reliability and validity is optimized by using the unweighted total events score rather than a weighted hierarchy, given the latter's greater susceptibility to individual differences in reporting bias.

Personal Adjustment.

The Personal Adjustment scale of the Adjective Check-List (Gough, Heilbrun, 1965) comprises 36 items from the 300-item ACL that are differentially checked by the respondent as 'self-referring'. The Personal Adjustment scale was derived by

Gough and Heilbrun "from item analyses of subjects rated higher and lower by experienced clinicians on personal adjustment and personal soundness...The attitudinal set (measured by the Personal Adjustment scale) includes optimism, cheerfulness, interest in others, and adaptability" (1965,pp.9,12).

Test-retest reliability coefficients of the Personal Adjustment scale are reported as .79 for women and .76 for men (Gough and Heilbrun, 1965). Masterson (1975) reports empirical evidence supporting both the construct and concurrent validities of the scale; however, she cautions that there is insufficient segarability (as regards high inter-scale correlations) of many of the various ACL scales. Masterson recommends selecting from the overall ACL only those scales with particular reference to the research objectives

Measures of Recalled Dream Content.

As noted above, contemporary dream research employs dream analysis to test hypotheses report content about the relationship of dream content to waking psychological states. Two of the better validated and 'more used content analysis systems (cf. Winget and Kramer, 1979) are those by Hall and Van Gottschalk Castle (1966) and and Gleser (1969). de Additionally, one of the few scales appearing in the empirical dream content litérature designed specifically to test key assumptions of analytical psychology dream theory was that by Kluger (1975). Content categories from each of these systems

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Table 4 Dream Content Analyses: Content Categories Rated and Derived Variables

Content Category

Characters' (Hall,Van de Castle,1966)

Activities (Hall, Van de Castle, 1966)

Friendly Interactions Aggressive Interactions (Hall,Van de Castle,1966)

Emotions (Hall, Van de Castle, 1966)

Achievement Outcomes Environmental Press (Hall,Van de Castle,1966)

Anxiety (Gottschalk,Gleser,1969)

Hostility Directed Inward Hostility Outward-Overt Ambivalent Hostility (Gottschalk,Gleser,1969)

Affective Intensity Dream 'Rationality' Dream 'Everydayness' (Kluger,1975) Ratio Friendly:Aggressive Interactions (R) (RFRAGG)

Ratio Positive:Negative Emotions (R) (RPNAFF)

Derived Dream Content Variable

Ratio Success, Good Fortune: Failure, Misfortune (R) (RSGFFMF)

Anxiety (Fr) (ANX)

Dreamer-Involved Hostility (Fr) (HINVD)

Archetypality (Pr) (ARCHET)

Fr: Event frequency per 100 dream report words
R: Ratio score of two or more dream content categories
Pr: Proportion of participants' dream reports achieving'
criterion ratings on all three Kluger (1975) scales.

were employed in this research and are described below. Friendly and Aggressive Social Interactions.

Hall and Van de Castle define Friendly Interactions as "deliberate, purposeful attempts by one (dream) character to express friendliness to another" (1966,p.77). Five classes of friendly social interactions are rated here ranging from mildly friendly (e.g., opening a door for. another or a greeting) to very friendly (e.g., expressing one's love for another or performing a major assistance for another). Overall, inter-rater scoring coefficients for the Friendly Interactions scale (all 5 classes combined) are .91 with perfect agreement for overall frequency of Friendly Interactions per dream report being 70% (Hall, Van de Castle, 1966, Van de Castle, et al., 1971).

Hall and Van de Castle define Aggressive Interactions as "deliberate, intentional acts of one character to harm or annoy some other character" (1966.p.69). Eight classes of aggressive social interactions are included in the Aggressive Interactions scale from the mildly aggressive (e.g., casting a hostile glance) to extremely aggressive (e.g., taking the life of another). Overall inter-rater scoring reliability for the combined eight classes of Aggressive Interactions is .97 and the percentage of perfect agreement for overall frequency of Aggressive Interactions per dream report is 72%.

In this research the ratio of Friendly:Aggressive Interactions (RFrAgg) was employed. Ratio scores were preferred because the research hypotheses predicted proportional differences, in the groups' remembered dreams, of friendly-to-aggressive dream content.

In addition, in consideration of the fact that sexual interactions almost always possess an affiliative or aggressive tone, Hall and Van de Castle's (1966) Sexual Interactions scale was collapsed across the Friendly and Aggressive Interactions scales. The Sexual Interactions scale measures five classes of sexual activities from having sexual thoughts about another dream character to sexual intercourse. Reliability and validity data parallels that for the Friendly and Aggressive Interactions scales (100% inter-rater agreement for total frequency/dream, and 64% perfect agreement for each of the 5 categories, Hall and Van de Castle, 1966).

Positive and Negative Affect.

The Emotions scale of Hall and Van de Castle measures dream affect with regard to its positive or negative tone. One omnibus class ('Happiness') encompasses all dream affect from the mildly pleasant to the exultant. Four 'classes ('Anger', 'Apprehension', 'Confusion', 'Sadness') cover the range of negative dream affect. Hall and Van de Castle report coefficients of inter-rater reliability for positive-toned affect as .76 with 95% perfect inter-rater agreement for frequency of 'Happiness' per dream report. They report coefficients of reliability of .76 for the combined four classes of negative dream affect with 75% perfect agreement for overall frequencies per dream report (Hall, Van de Castle,1966).

Again, given the well-established research finding of greater proportions of negative in most people's remembered dreams, the principal interest in this research was in the relative proportions of positive-to-negative dream content. Thus, a ratio of the two classes of dream affect (RPNAff) was * employed as a criterion variable.

Success, Good Fortune, Failure and Misfortune Experiences.

Two content categories from Hall and Van de Castle (1966) - Achievement Outcome and Environmental Press - measure the occurrence of four types of event outcomes in remembered dreams. Achievement Outcome measures the occurrence of Success (expenditure of energy and perseverance in pursuit of a goal, resulting in goal attainment) and Failure (expenditure of energy and perseverance in pursuit of a goal resulting in failure to attain goal). Environmental Press is the label given by Hall and Van de Castle to two other classes of dream event outcomes: Good Fortunes, when "something beneficial happens to a character that is completely adventitious... over which no one has control" (p.105); and Misfortunes, or "any mishap, adversity, harm, danger or threat which happens to a character as a result of circumstances over which he has no control" (p.103).

Hall and Van de Castle report inter-rater scoring reliabilities for the frequencies of occurrence of the four 'event outcome' classes as; 'Success', 75%; 'Good Fortune', 83%; 'Failure', 100%; 'Misfortune', 71% (1966).

The four classes are combined in this research into a

ratio of positive-toned event outcomes ('Success' and 'Good Fortune') to negative-toned event outcomes ('Failure' and 'Misfortune'); i.e., (RSGFFMF), This was done, as above, to enable comparison of the dream groups with respect to, the proportional representation of positive-versus negative-toned dream content.

Anxiety-Toned Content:

Gottschalk and Gleser's (1969) Anxiety scale assesses six classes of dream anxiety from midd ('Nonspecific') to extreme ('Death Anxiety', where the dreamer is afraid for his or her very life). Data addressing the construct and concurrent validity of the Anxiety scale appear in Gottschalk and Gleser (1969) and Gottschalk (1974), and are supportive of its use. Inter-scorer reliability of the scale is reported by Gottschalk and Gleser as .90, when the six classes of anxiety-toned content are collapsed into one and rated with regard to the event frequency per dream report. This was also the procedure employed in this research. Dreamer-Involved Hostility.

Three of Gottschalk and Gleser's (1969) content analysis scales measuring hostility were also employed. These were the Hostilities Directed Inward (hostilities directed at the dreamer from other dream characters), Hostilities Directed Outward-Overt (hostilities by the dreamer against other dream characters), and Ambivalently- Directed Hostility (hostility by the dreamer against himself or herself). Inter-scorer reliability coefficients reported by Gottschalk and Gleser are

.83, .83, and .87-.96 respectively. These three scales were combined into one in this research, Dreamer-Involved Hostility (HInvD) to provide a more detailed measure than that of Hall and Van de Castle's Aggressive Interactions scale of dreamer-specific aggressions.

Dream 'Archetypality'.

Kluger's Archetypality scale was the only content . -analysis scale employed here that was specifically designed to single dream theory (analytical psychology dream test a theory). As defined earlier, Archetypality refers to the representation in one's dreams of material from non-personal : 'collective unconscious' elements of or the psyche. Archetypal dream content is considered to be more affectively-charged, nonrational and outside normal everyday experience than the majority of one's typical dream content. Kluger's Archetypality scale, as usually employed, combines from three subscales ('Affect', 'Rationality', and ratings 'Everydayness') into an overall 'rating of dream 'report archetypality. To be rated as archetypal, a dream report must achieve criterion ratings above the midpoint on each of the three subscales. Inter-rater reliability coefficients for the three archetypality subscales are reported as .66-.94-, .77-.95, and .82-.97 respectively (Kluger, 1975, Faber, et al. 1978,1983, Cann, 1979). A fourth Rluger Archetypality scale 'Presence of Mythological Parallel' - was not used because of insufficient operationalization and psychometric its validation.

Instructions for rating participants' dream reports on the above content analysis scales appear in Appendix III.

for potential differences attempting to control ln. the comparison groups on all but the independent between variable (presence, past presence or absence of a recurrent (9) covariate measures were entered in the dream). participants' > psychological multivariate analyses of and dream content well-being scores. Four. are self-explanatory: participant age, years of education, dream report frequency (over the 14-day dream collection period), and dream report length (mean number of words). The remaining five covariates are described below. Socioeconomic Status (SES).

Blishen and McRoberts (1976) developed a hierarchical ordering of the 500 most common occupations among Canadians according to the socioeconomic status perceived to accrue to each. SES rankings for participants in this research were thus based on their reported occupations.

Social Desirability.

The Marlowe-Crowne Social Desirability Scale (SDS) is a 33-item measure of the inclination to present oneself in a 'socially desirable' light. The SDS has reported test-retest reliability coefficients of .78 -.89, and split-half reliabilities of .74 - .90 (Marlowe, Crowne, 1964). Investigations of the SDS's construct validity reveal that it seems to assess as much individuals' defensiveness (regarding

Covariate

Agè

(years)

Education (years)

Socioeconomic Status (SES) (Blishen, 1976, rankings)

Social Desirability (SDS) (Social Desirability Scale, Crowne, Marlowe, 1964, rs)

Defensiveness (Def) (Eysenck Personality Inventory, Eysenck,Eysenck,1963,ss)

Psychological Mindedness (PM) (Adjective Check-List, Gough, Heilbrun, 1965, ss)

Dream Report Frequency (DRFr) (# over 14 day dream collection period)

Dream Report Length (DRL) (Mean length (# words) of Participants' Dream Reports)

Dream Report Activities (Activ) (event frequency/100 dream report words) (Hall,Van de Castle,1966)

rs: Raw score ss: Standardized score unbiased self-representation) as their inclination to respond in 'socially desirable' ways (Ramanaiah, et al, 1977, 1980). Defensiveness.

The L-scale of the Eysenck Personality Inventory is a 14-item subscale of the Eysenck Personality Inventory (Eysenck and Eysenck, 1968) which attempts to measure of one's consistency in either denying or admitting socially undesirable behaviors. The 14 items on the L-scale tap such things as 'Have you sometimes told lies in your life?', and 'Are you completely free of prejudices of any kind?'. In addition, each item appears fater in rephrased form to assess individuals' response consistency.

Eysenck and Eysenck report test-retest reliability coefficients for the L-scale ranging from .67-.78 (1968). Some more recent data regarding the L-scale indicate it possesses somewhat less reliability than the overall Eysenck Personality Inventory, however (Pryke and Harper, 1977; <u>r</u>=.47-.59). These authors recommend use of the L-scale, but in concert with another 'defensiveness' or 'social desirability' measure largely because of insufficient published reliability and concurrent validity data.

Psychological Mindedness.

The Intraception (Psychological Mindedness) scale of the Adjective Check-List (Gough and Heilbrun, 1965) is a 30-item measure of individuals' inclinations "to engage in attempts to Enderstand one's own behavior" (Gough, Heilbrun, 1965, p. 19). The ACL Intraception scale has reported test-retest reliability coefficients ranging from .37-71 (Gough, Heilbrun, 1965, Masterson, 1975). Concurrent Validity is reported as good by the scale's authors and by Masterson (1975). Both also present evidence for the scale's construct validity. Masterson (1975) reports , however, that the discriminant validity of the Intraception scale with respect to the other ACL subscales is rather low. She recommends employing only those ACL subscales directly relevant to one's research hypotheses. Dream Characters.

Though not entered as a covariate in the multivariate analyses, Hall and Van de Castle's (1966) Characters scale was necessary for identification of the various dream characters in the participants' dream reports. Hall and Van de Castle report very high inter-rater coefficients of agreement for this scale (\underline{r} =.99) with c. 93% perfect agreement between raters reported (1966). Van de Castle, et al. (1971) report inter-rater reliability data consistent with these figures (\underline{r} =.93).

Dream Activities.

Hall and Van de Castle's Activities scale (1966) was also employed as a covariate in the research. This was intended to demonstrate that if the experimental groups did significantly differ on the criterion psychological well-being and dream content measures, the rival hypothesis could not be forwarded that such differences obtained from différences in the overall activity levels of the groups' dream reports.

Eight classes of activities are measured by this scale: physical activities; verbal activities; movements; location changes; nonverbal expressiveness; looking; hearing; and thinking. Hall and Van de Castle (1966) report coefficients of agreement for all activities combined per dream report as .92 with 85% perfect agreement between raters.

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All phases of the research were completed by participants at their homes. This, coupled with guided pre-exposure to each of the research protocols' and the establishment of an 'experimental' routine (i.e., Parts I, II, and III were to be completed at specified times, in sequence, alone and in a comfortable setting) was chosen to enable fulfillment of the research requirements in as naturalistic setting and in as nonintrusive fashion as possible. And, with the exception of (e) (p.108) care was taken to address each of the above-mentioned cautions (a) to (h) regarding judicious use of self-report methodologies.

As was the case in the pre-participation briefings, post-participation de-briefings were held with each participant. Participants were informed of the specific nature and intent of the research (i.e., description of the specific experimental hypotheses), and were encouraged to ask specific questions about the research. These de-briefings indicated excellent overall compliance with the experimental tasks. Deviations or omissions of note did occur, however, and included: failure to complete each of the psychological tests.

(2 persons, one test each); failure to complete one of the experimental Parts (one person, Part III); completing Parts I, II, and III out of sequence (one person, excluded); and, delays in proceeding form Part I to Part II and from Part II to Part III (10 persons, with lapses ranging from 7 to 21 days).

Participation in the research required an average of 18-21 days per participant (1-2 evenings for Parts I and III, and 14 days for Part II). Seventy four participants completed and returned the research protocols within 28 days; Two others took 40 and 52 days respectively to complete the tasks. No participant who completed Parts I, II, and III reported serious difficulty understanding and complying with the research requirements and the individual protocols.

While the format and procedure for completion of the standard psychological tests, such as those in use here, is clear-cut, there is considerable debate concerning home or laboratory collection of peoples' dream reports (Cohen, 1979, Cartwright and Kazniak,1978, Okuma,et al.,1976, Van de Castle, 1969, Dement, et al., 1965, Domhoff and Kamiya, 1964a, b). Despite the clear advantages, with laboratory collection, of retrieving individuals' dream reports immediately upon waking. from each REM-period, with considerable methodological uniformity and experimenter control (Cartwright and Kazniak,1978, Foulkes,1976), a structured home dream recording method (with pre-training regarding optimal time and conditions for enhanced dream recall) was preferred for this

research for the following reasons:

- (i) home dream reports contain significantly fewer references to the experimental situation (Cohen, 1979, Okuma, et.al., 1976);
- (ii) dream reports collected in sleep laboratories, even after a requisite number of adaptation nights show diminished thematic, affective, and social interactional ranges (Cohen, 1979, Cartwright and Kazniak, 1978, Okuma, et al., 1976)
- (iii) the less-methodologically circumscribed procedure of home dream recording has not been shown to result in alterations in dream reports as regards social desirability or self-serving bias (Okuma et al.,1976, Domhoff and Kamiya,1964a,b);
- (iv) with sufficient participant motivation, dream report recall rates in home dream studies can reach or exceed one per person per night (Domhoff and Kamiya,1964b);
- (v) participation in home dream recording studies is consistently perceived as less intrusive, less stressful, and more likely to be taken-up than the traditional sleep laboratory paradigm (Cohen, 1979, Okuma, et al., 1976, Domhoff, 1969).

Scoring Procedure.

All participant data was coded alpha-numerically for each of the dreaming questionnaire, well-being measures and 'Dream Record' cards. Participants' names appeared only on their signed 'Informed Consent/Confidentiality of Participation' form. These were kept physically apart from the research protocols (coded and un-named). The well-being measures from Parts'I and III (coded and un-named) were scored 'blind' by the researcher according to standard criteria supplied in the scoring manuals for each. Where present, standardized scores (T or %ile) were obtained for each well-being dimension. Raw scores - averaged over the two test administrations (as was the case for all measures save the SCL 90-R) - were employed for the remaining measures (the Social Desirability Scale and the Beck Depression Inventory).

Participants' dream reports, collected from the fourteenday time-sampling periods (Part II) were content analysed by independent raters (both were undergraduate research two assistants, female, ages 27 and 28). Each was trained by the researcher in the relevant, content (analysis scales (Table 4); and, though 'known to him each was not known to the other. Each rater was trained over a six-week period until criterion performance was attained on each of the content analytic. (n.b. The dream reports used in the training t categories. period of each rater came, from an earlier, pilot study and were comparable in length, thematic variation and content range to the experimental data proper.) Once content analyses. of participants' dream reports were begun by each rater, however, each had no further didactic or advisory contact with the researcher. For their ratings each rater applied content analytic scales supplied for each of the 17 content categories; as well as notes (clarifying the procedures and scoring criteria for the different content categories) made during her training period. Inter-rater reliabilities for the content analyses of all dream reports (n = 849) appear in Table (6). (n.b., Ratings are therein expressed as the per. cent agreement, between Raters 1 and 2 for the frequency of occurrence of events rated in each dream content category.) To express the degree of inter-rater reliability of the

dream report content analyses, per cent agreement (as defined above) was preferred over the standard test statistic (the Pearson product- moment correlation coefficient) for two reasons (Hall and Van de Castie, 1966)

- (i) in cases where mean frequencies of events per dream content category per dream are small, as is the case here (Appendix V.), Pearson product-moment coefficients are unlikely to offer meaningful indices of inter-rater reliability;
- (ii) the percent agreement statistic, unlike the Pearson product-moment correlation, is sensitive to situations commonly found in content analysis where raters may parallel one another in their, ratings, but one consistently under- or over-rates the material viz. the other.

Dream Report Content Analyses:

Table 6

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Inter-Rater Reliabilities

Dream Content Category	Percent Agreement*
Characters g	90.2
Activities	83.9
Friendly Interactions	85.5
Aggressive Interactions	90.6
Positive Emotions	90.5
Negative Emotions	86.1
Success Experiences	93.6
Failure Experiences	91.1
Góod Fortunes	93.0
Misfortunes	84.8
Anxiety	88.1
Dréamer Involved Hostilities	95.3
Archetypality	95.6
(Affect) Stress	(84.6)
(Rationality)	(78.9)
(Everydayness)	(77.7)
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* Percent Agreement= Agreement between Raters 1 & 2 with respect to event frequency per content category per dream report, for <u>n</u>=849 dream reports.

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Results

Seventy-six persons completed all phases of the research (Parts I, II, and III). sixty-seven participants were successfully classified into one of the experimental comparison groups (RD, PRD, and NRD). These sixty-seven participants constitute the sample population discussed below. (Of the remaining 9 persons, I was excluded due to her simultaneous completion of Parts I & III, and 8 could not be classified with certainty into one of the experimental groups.)

Demographic and Other Covariate Variables Results. -

As displayed in Table (7) the total participant sample (\underline{n} =67) had a mean age of 33.9 years, were above average in their years of education (\underline{M} =14.2) and slightly above average in their socio-economic status (Blishen SES rating, \underline{M} =171) (Blishen and McRoberts, 1971). Though not included in the experimental design as a covariate due to its dichotomous nature, participant sex was disproportionately loaded in favor of women (57/67, or 85%).

Regarding the psychological covariate variables - social desirability, defensiveness and psychological mindedness - the total sample achieved scores on each well within normal population norms.

(n.b. Normal population norms for the three clusters of covariate, psychological well-being and recalled dream content variables appear in Appendix I.)
The total sample also scored essentially within normal population norms on the three dreaming covariate measures (dreaming frequency, mean dream length, and mean number of dream report activities). The participants did report, however, a slightly higher proportion of dream activities in their dream reports than the published norms ($\underline{M}=6.5$, versus 5.0 in the normative sample).

Univariate analyses of variance performed on these demographic variables (i.e., inter-group comparisons of RD v. PRD, RD v. NRD, and PRD v. NRD), revealed only one significant difference; non-recurrent dreamers reported significantly more dream activities than the recurrent dream group $(\underline{F}=4.55, \underline{p}=.038)$. The groups did not significantly differ on any other of the demographic variables. These comparisons, and, visual inspection of the data suggest the approximate equivalence of the 3 experimental groups with respect to the covariate measures.

The duration of the participants' recurrent dreams is of interest in comparing the recurrent and past-recurrent dream groups. For the former, the mean duration of their, recurrent dreams, to date, was 8.2 years (<u>SD</u>=8.3 years). For the PRD, the previously recurrent dream lasted for an average 3.2 years (<u>SD</u>=3.5 years) before ceasing. This is a statistically significant difference (<u>F</u> 1,46 = 7.9,p<.01). Also of note is that 45 of the 67 participants (70%) reported experiencing at least one recurrent dream in childhood.

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Table 7 Covariate Measures Results

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ر ،	· · · ·	· · ·	RD (n=30)	PRD (n=18)	NRD (n=19)	Total Sample (n=67)	
	Age (yéars)	M SD Range	36.5 17.0 20-88	32.6 11.8 20-58	30.9 12.1 18-58	33.9 14.4 18-88	
	Education (years)	M SD Range	14.4 2.2 9-19	14.0 2.0 10-16	14.0 2.0 10-16	14.2 2.1 9-19	
	Socioeconomic Status (Blishen) ss	M SD Range	170 85 15-394	2176 58 109-301	168 51 106-367	- ¹⁷¹ 69 15-367	
-	Defensiveness (EPI-L) ss	M SD Range	61.8 21.3 21-99	60.0 24.0 21-99	62.0 27.0 21-96	61.4 23.5 21-99	
	Social Desirability (SDS) rs	M SD Range	14.1 5.8 3-28	13.3 6.0 4-26	14.3 5.2 7-22	13.9 5.6 3-28	
	Psychological Mindedness (ACL) ss	M SD Range	48.0 10.4 29-65	52.4 1.7 3/6-67	49.6 10.1 30-74	49.7 9.7 29-74	
	Dream Report Frequency (14 days)	M SD Range	13.4 3.5 1-35	11.6 6.7 4-30	11.8 6.3 3-25	12:5 6.8- 1-3 9	
	Dream Report Length (# words)	M SD Range	141 60 64-347	136 64 53-276	130 62 49-314	137 61 49-347	
I	Dream Report Activities (frequency 100 words)	M SD Range	6.1 1.4 3.7-10	6.6 1.7 3.2-9.5	7.5 1.9 4.1-11	6.6° 1.7 -3.2-11	

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rs: Raw score ss: Standardized score

Psychological Well-Being Measures.

The total participant sample achieved scores on each of the (6) psychological well-being dimensions well within published normal population norms (cf. Appendix I). The psychological well-being results for the total sample and the three comparison groups appear in Table 8.

The three comparison groups evince a consistent hierarchical ordering on each of the psychological well-being dimensions. On the five measures of neuroticism or psychological distress (neuroticism, anxiety, depression, general (psychopathology) symptomatology, life-event stress), recurrent dreamers always achieved the highest (i.e., least adaptive) mean scores, followed by the non-recurrent and then the past-recurrent dreamer groups. On the measure of personal adjustment the ordering was reversed, with past-recurrent dreamers achieving the highest and recurrent dreamers the lowest mean scores. The statistical significance of this hierarchical separation consistent of the recurrent. non-recurrent and past-recurrent dreamer groups is explored in detail below when describing the results of the planned discriminant multivariate, univariate, function and comparisons (Tables 11-16).

The mean scores of the recurrent dream group on each of the (5) measures of neuroticism were above normal population norms but below neurotic and psychiatric patient norms (Appendix I). The RD group's mean score on personal adjustment, was below the published normal population norm.

		RD (n=30)	PRD (n=18)	NRD (n=19)	Total Sample (n=67)
A	- 12 - 74 14 - 74	۰ پر ایک میں ۲۰۰۰ میں ۲		•	, , , , , , , , , , , , , , , , , , ,
Neuroticism (EPI) ss	M SD Range	76.5 22.6 18-99	52.6 27.5 6-95	62.1 25.6 15-99	66.0 26.5 6-99
Trait Anxiety (STAI) ss	M SD Range	58.7 10.8 35-75	47.7 8.3 .29-55	51.3 8.4 42-65	53.7 10.5 29-75
Depression (BDI) rs	M SD Range	11.3 7.8 1-27	4.1 2.7 0-9	7.5 4.2 0-16	8.3 6.5 0-27
General Symptom Index (SCL) ss	M SD Range	65.7 11.0 37-81	51.7 7.9 37-68	59.5 6.2 48-70	60.1 10.7 37-81
Life-Event Stress (PLEI) rs	M SD Range	6.6 4.1 1-20	3.5 2.3 0-8	4.1 2.0 1-9	4.9 3.4 0-20
Personal Adjustment	M SD Bange	42.6	51.1 9.7 35-64	48.2 8.4 36-73	46.5

Table 8 Psychological Well-Being Results 7 +

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ss: Scaled Score rs: Raw Score

n) P

Past-recurrent dreamers achieved group mean scores at or below normal population norms on each of the (5) neuroticism dimensions and above the norm on the measure of personal adjustment. Non-recurrent dreamers' group mean scores on all (6) psychological well-being measures were at or very near normal population norms.

Dream Content Measures.

The hierarchical ordering continues in the same report content analyses. participants' dream The total participant sample achieved mean scores on most all of the dimensions of recalled dream content within normal population norms. That is, the total sample's recalled dreams contained greater proportions of negatively-toned thematic, affective and event-outcome content, and a roughly balanced proportion of affiliative-to-aggressive dream content (Table 9).

The total participant sample reported similar mean proportions of dream anxiety and dreamer-involved hostility and similar ratios of positive-to-negative affect, success and good fortune-to-failure and misfortune experiences, and archetypal-to-non-archetypal dream content as reported in previous normal population research (Appendix I).

The participants in this research did, however, appear to report a greater mean ratio of friendly-to-aggressive dream report social interactions than previously reported (i.e., M=1.27, v. M=.90).

It should be noted, though, that in the present research

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Dream Content Analyses Results Total RD PRD NRD Sample (n=30) (n=18) (n=19) (n=67)Anxiety .28 .43 Μ .32 .36 .20 (G-G) freq SD .17 .21 .20 0-.98 0-.57 0-.84 0-.98 Range .18 .19 Archetypality М .12 .31 .10 .09 (K) pr SD 👒 .180 .15 0-.63 0-.30 0-.36 0-.63 Range = .63 Ratio 2.25 M 1.34 1,27 .75 SD Friendly: 2.06 1.11 0-7.00 Aggressive Range 0-3.00 .40-7.00 .40-3.25 Interactions (H-VdC) r .66 Ratio М .23 .31 .37 .27 .87 Positive: SD .51 0-1.00 0-2.00 Negative Range 0-1.00 0-2.00 Affect (H-VdC) r .19 .48 .56 1.26 Ratio М .20 .28 SD Success, GF: 1.43 .88 0-2.33 Failure,MF Range 0-.80 0-1.00 0 - 2.33Experiences (H-VdC) r .29 Hostility M .43 .18 , .32 .32 Involving SD .29 .16 .29 0-.80 Dreamer 0-1.58 0-.48 0-1.58 Range (G-G) freq

Table 📜

freq:/Event frequency/100 words r: Ratio score pr: Proportion of dream reports so rated

sexual interactions were collapsed across friendly and aggressive interactions. When the ratios from previous normative studies are thus adjusted, the discrepancy is narrowed (i.e., $\underline{M}=1.27$ v. $\underline{M}=1.05$, cf. Hall and Van de Castle, 1966).

On the measures of recalled dream content, the recurrent dream group achieved the highest mean scores with respect to anxiety and hostilities involving the dreamer, and the lowest mean ratios of friendly-to-aggressive, positive-to-negative affect, success and good fortune-to-failure and misfortune, and archetypal- to-non-archetypal dream content. Compared against previous normal population norms (Appendix I), the dream lesser ratios recurrent group reported of friendly-to-aggressive, positive-to-negative, success and good fortune-to-failure and misfortune, and archetypalto-non-archetypal dream content.

Past-recurrent dreamers achieved dream content ratings opposite that of recurent dreamers on each of the (6) They reported the lowest mean proportions of dimensions. anxiety- and hostility-toned content and the highest mean four dream content dimensions. ratios on the remaining Compared against previous normal population norms, (Appendix 5), the past-recurrent dream group reported lesser proportions of anxiety and dreamer-involved hostility, and elevated ratios of friendly-to-aggressive, positive-to-negative, success and fortune-to-failure doog anđ misfortune, and archetypal-to-non-archetypal dream content.

The non-recurrent dream group achieved dream content ratings placing it squarely between the other two groups on each of the (6) dream content dimensions. Non-recurrent dreamers thus achieved group mean dream content ratings well within normal population norms.

As Part III of the research was a virtual repetition of Part I it was possible to gather test-retest reliability data on participants' responses to the psychological well-being measures. (n.b. The mean inter-test interval between Parts I and III was 18 days.) These data are presented in Table (10). Data Analyses.

Two types of multivariate comparisons comprised the priori data analyses. Multivariate analyses of covariance (MANCOVAs), followed by univariate analyses of covariance (ANCOVAs), were employed to assess group differences in comparison levels I and II on the psychological well-being, recalled dream content, and combined dependent measures (Hull, Nie, 1981). A discriminant analysis was then performed on the combined (n=67) participant data to determine, first, whether the groups formed one linear combination (i.e., differed on one or more than one dimension), and second, to '. determine which of the psychological well-being and recalled dream content measures contributed most to the canonical discriminant function(s) (Klecka, 1975).

With respect to the (MANCOVA) analyses and the availability of four potential significance test statistics (Roy's, Wilk's, Hotelling's, and Pillais-Bartlett's), the

Table 10 Measures of Psychological Well-Being Test-Retest Reliability: Well-Being and Covariate Measures

· · · · · · · · · · · · · · · · · · ·	•••••••••••••••••••••••••••••••••••••••	· · · ·	·
Well-Being Measure.		Pearsor <u>Moment</u>	Product- Correlation
Neuroticism (EPI)	- ' ' •	,744	
Trait Anxiety (STAI)	-	.865	H
Depression (BDI)	, ,	.708	۰. ۱

General Symptom Index (SCL-90R)

Life-Event Stress (PLEI)

Personal Adjustment (ACL)

Covariates

Defensiveness (EPI)

Social Desirability (MCSDS)

Psychological Mindedness (ACL)

Single Administration

.895

.7,27

.854

.721

.768

Pillais statistic was chosen because of its enhanced robustness with respect to violations of normality and homogeneity of variance (Olson, 1976, p. 579).

Subsequent post-hoc analyses included univariate analyses of variance to assess group differences on demographic and covariate measures, and pooled within-groups correlation matrices to assess intercorrelations among the covariate, psychological well-being and dream content dimensions. Comparison Level I Results: RD v. PRD & NRD Groups.

The results of the multivariate comparison (MANCOVA) of recurrent versus past- and non-recurrent dreamers appear in Tables (11) and (12). Statistically significant differences occur between the RD group and the PRD and NRD groups on the well-being measures ($\underline{F}=5.22, \underline{p}<.001$), dream content categories ($\underline{F}=6.31, \underline{p}<.001$), and on both set of measures combined ($\underline{F}=4.59, \underline{p}<.001$) (Table 11). In fact, significant differences occur between the (2) groups on each of the (12) separate psychological well-being and recalled dream content dimensions (Table 12).

Thus, in Comparison Level I recurrent dreamers were significantly distinguished from the combined past-recurrent and non-recurrent dreamer group on each of the psychological well-being, recalled dream content and combined multivariate and univariate comparisons.

Comparison Level II: RD v. PRD, RD v. NRD, & PRD v. NRD.

Comparison Level II involved three separate inter-group comparisons: (i) the recurrent dream group versus the

Table ll Multivariate Analysis of Covariance* Results Group Comparison Levels I & II

	F	p(Pilla	is)
Comparison Level I	· · · · · · · ·	· · ·	· · · · ·
	, , -		· .
RD v. PRD & NRD Well-Being Measures (n=6) Dream Content Measures (n=6) Combined Measures (n=12)	5.22 6.31 4.59	<.001 <.001 <.001	· · ·
	· · · · ·		•
Comparison Level II		٥	· ·
RD v. PRD	•	`	-
Well-Being Measures (n=6)	5.11	.001	
Dream Content Measures (n=6) Combined Measures (n=12)	14.82 10.79 ₋ -	<.001 <.001	
RD v. NRD	ı	-	
Well-Being Measures (n=6)	2.58 /	.037	•
Dream Content Measures (n=6)	10.91	<.001	
Combined Measures (n=12)	·6.31	<.001	,
PRD v. NRD	1		
Well-Being Measures (n=6)	4.55	.004	
Dream Content Measures (n=6)	2.85	.034	
Combined Measures (n=12)	3.45	.013	•
			ı

- * Covariate variables: Age,Education,SES,Defensiveness, Social Desirability,Psychological Mindedness, Dream Report Frequency,Length,Activities.
- RD: Recurrent Dream Group PRD: Past-Recurrent Dream Group NRD: Non-Recurrent Dream Group

Table 12Multivariate Analysis of Covariance* ResultsUnivariate Significance TestsComparison Level I: RD v. PRD & NRD Groups

	[F (1, 50)	, P
Well-Being Measures	·	·,
Neuroticism (EPI)	8.81	.004
Anxiety (STAI)	15.39 `	·<.001
Depression (BDI)	8.83	~ .004 [.]
General Symptomatology (SCL-90R)	20.40	<.001
Life-Event Stress (PLEI)	15.51	<.001
	۰ ،	•
Dream Content Measures	-	-
Anxiety (G-G)	6.84	.011
Archetypality (K)	16.09·	<.001
Ratio Friendliness:Aggressions (H-VdC)	10.68	.002
Ratio Positive:Negative Affect (H-VdC)	· 7,79	.007
Ratio Success&Good Fortunes:	7.11	.010
Failure&Misfortunes (H-VdC)	· ·	•
Hostility Involving Dreamer (G-G)	11.25	<.001

Covariate Variables: Age, Education, SES, Defensiveness,
Social Desirability, Psychological Mindedness,
Dream Report Frequency, Length and Activities.

RD: Recurrent Dream group PRD: Past-Recurrent Dream group NRD: Non-Recurent Dream Group , 145

past-recurrent dream group; (ii) the recurrent dream group versus the non-recurrent dream group; and, (iii) the past-recurrent dream group versus the non-recurrent dream group. As such, three separate multivariate analyses of covariance (each with (12) constituent univariate analyses) were performed.

RD v. PRD Group.

In Comparison Level II the first multivariate comparison involved the recurrent and past-recurrent dreamer groups. The MANCOVA results appear in Tables (11) & (13). Statistically significant differences obtain on each of the psychological well-being (\underline{F} =5.11, \underline{p} =.001), recalled dream content (\underline{F} =14.82, \underline{p} <.001), and combined (\underline{F} =10.79, \underline{p} <.001) multivariate comparisons. With respect to the (12) constituent well-being and dream content univariate (ANCOVA) comparisons, recurrent and past-recurrent dreamers were statistically significantly distinguished in each case (Table 13). RD v. NRD Group.

The second Comparison Level II group comparison involved the recurrent and non-recurrent dream groups (Tables 11 & 14). Here as well, statistically significant differences between the recurrent and non-recurrent dreamer groups obtained on each of the psychological well-being ($\underline{F}=2.58, \underline{p}=.037$), recalled dream content. ($\underline{F}=10.91, \underline{p}<.001$), and combined ($\underline{F}=6.31, \underline{p}<.001$) multivariate comparisons (Table 11). Of the (6) constituent univariate (ANCOVA) psychological well-being comparisons, statistically significant differences obtained between the RD

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Table 13 Multivariate Analysis of Covariance* Results Univariate Significance Tests Comparison Level II: RD v. PRD Group

, ,	F(1,37)	р
Well-Being Measures		
Neuroticism (EPI)	11.78	.001
Anxiety (STAL)	18.55	<.001
Depression (BDI)	12.31	.001
General Symptomatology (SCL-90R)	18.03	<.001
Life-Event Stress (PLEI).	9.61	.004
Personal Adjustment (ACL)	13.66	.001
•••••		•
Dream Content Measures		
Anxiety (G-G)	8.45	.006
Archetypality (K)	19.83	<.001
Ratio Friendliness:Aggressions (H-VdC)	25.24	<.001
Ratio Positive:Negative Affect (H-VdC)	12.81	.001
Ratio Success, Good Fortunes:	41.51	<.001
Hostility Involving Dreamer (G-G)	12.44	.001
•		

* Covariate Variables: Age,Education,SES,Defensiveness, Social Desirability,Psychological Mindedness, Dream Report Frequency,Length and Activities.

RD: Recurrent Dream group PRD: Past-Recurrent Dream group NRD: Non-Recurent Dream group and NRD groups with respect to trait anxiety ($\underline{F}=5.37, \underline{p}=.026$), life-event stress ($\underline{F}=5.78, \underline{p}=.021$), and personal adjustment ($\underline{F}=7.54, \underline{p}<.01$). Of the (6) recalled dream content dimensions recurrent and non-recurrent dreamer groups were significantly distinct with respect to dream archetypality ($\underline{F}=11.83, \underline{p}<.001$), ratio of friendly-to-aggressive interactions ($\underline{F}=15.22, \underline{p}<.001$), ratio of success & good fortune-to-failure & misfortune ($\underline{F}=24.65, \underline{p}<.001$), and dreamer involved hostilities ($\underline{F}=9.30, \underline{p}<.01$).

Of the univariate ANCOVA comparisons failing to reach statistical significance, one of the global psychological well-being measures of neuroticism (EPI-Neuroticism scale) appears marginally significant (\underline{F} =3.49, \underline{p} =.069).

PRD v. NRD Group.

The results of the last Comparison Level II multivariate comparison involved the past- and non-recurrent dream groups. The results appear in Tables (11) & (15). Past- and non-recurrent dreamers were statistically significantly different on each of the psychological well-being (F=4.55, p<.01), recalled dream content (F=2.85,p=.034), and combined (F=3.45, p=.01) multivariate comparisons (Table 11). Within the (12) constituent ANCOVA comparisons the two groups were significantly distinguished on 3 of 6 psychological well-being dimensions (general psychopathology symptomatology (E=7.95, p<.01), depression (F=7.61,p=.01), life-event stress (F=21.79, p<.001)), and on 2 of 6 dream content dimensions (dream archetypality (F=6.53,p=.017), ratio of success &

Table 14Multivariate Analysis of Covariance* ResultsUnivariate Significance TestsComparison Level II: RD v. NRD

	•		F(1.38)	n	۰.
Well-Being Measures Neuroticism (EPI) Anxiety (STAI) Depression (BDI) General Symptomatology (SCL- Life-Event Stress (PLEI) Personal Adjustment (ACL)	-90R)	· · · · ·	3.49 5.37 1.74 2.67 5.78 7.54	.069 .026 ns ns .021 .009	4 1947 -
Dream Content Measures Anxiety (G-G)		•	3.78	'ns	

	Archetypality (K)	11.83	.001	•	
	Ratio Friendliness:Aggressions (H-VdC)	15.22	<.001.	۰.	
	Ratio Positive:Negative Affect (H-VdC)	2.55	ns		
•	Ratio Success&Good Fortune:	. 24.65	<.001		`
•	Failure&Misfortunes (H-VdC)	•	• •		
	Hostility Involving Dreamer (G-G)	9.30	.004		
	- -				

Covariate Variables: Age,Education,SES,Defensiveness,
Social Desirability,Psychological Mindedness,
Dream Report Frequency,Length and Activities.

RD: Recurrent Dream group PRD: Past-Recurrent Dream group NRD: Non-Recurent Dream group

good fortune-to-failure & misfortune (F=8.42,p<.01)).

The multivariate analyses of covariance, taken together thus revealed: (i) the statistically significant separation of the recurrent dream group from the past- and non-recurrent dream groups combined with respect to both psychological well-being and recalled dream content dimensions (Comparison Level_ I); and further, (ii) the statistically significant distinction of the recurrent, past-recurrent, and nonrecurrent dream groups, each from the other, on the two sets of measures (Comparison Level II). Discriminant Analysis Results.

Despite the clarity of separation of the three comparison dream groups it remained to be seen whether they differed along one, or more than one linear dimension. Thus, the second form of planned multivariate comparison entailed a discriminant analysis of the combined (12) psychological well-being and recalled dream content dimensions for the total participant sample ($\underline{n}=67$). The results of the discriminant analysis appear in Table (16).

Only one of the (2) potential discriminant functions achieved statistical significance. In fact, canonical discriminant function (1) accounted for 96.3% of the total variance in the discriminant analysis. As such, it comprises the sole linear dimension along which the recurrent, non-recurrent and past-recurrent dream groups statistically significantly discriminate. Table 15 Multivariate Analysis of Covariance* Results Univariate Significance Tests Comparison Level II: PRD v. NRD Groups

F(1,26)

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Well-Being Measures		0	***
Neuroticism (ÉPI)		.49 •	
Anxiety (STAI) ~		1.41	ns .
Depression (BDI)		7.61	• .010
General Symptomátol	.ogy (SCL-90R)	-7.85	.009
Life-Event Stress (PLEI)	· · · · · · · · · · · · · · · · · · ·	<.001
Personal Adjustment	(ACL)	. 53	ns *
		·	••

Dream Content Measures	- د	•	N.C.
Anxiety (G-G)	4	.08	. ns
Archetypality (K)		6.53	.017
Ratio Friendliness: Aggressions	(H-VdC)	3.09	ກຮ່
Ratio Positive:Negative Affect	(H-VdC)	3.82	ns
Ratio Success&Good Fortune:	<u>۲</u>	8.42	.007
Failure&Misfortunes (H-VdC)	-		•
Hostility Involving Dreamer (G-	G)	1.48	ns i '
		•	

* Covariate Variables: Age, Education, SES, Defensiveness, Social Desirability, Psychological Mindedness, Dream Report Frequency, Length and Activities.

RD: Recurrent Dream group PRD: Past-Recurrent Dream group NRD: Non-Recurent Dream group

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Of the (12) constituent psychological well-being and recalled dream content discriminating variables, 9 were significantly correlated with the canonical discriminant function. Of the (6) largest correlations, 3 were recalled dream content dimensions (ratio of success & good fortuneto-failure & misfortune (r=.62), ratio of friendlyto-aggressive interactions (r=.38), dream archetypality (r=.36)), while the other 3 were psychological well-being dimensions (general psychopathology symptomatology (r=-.33), trait anxiety (r=-.32), depression (r=-.27)). Thus, in significantly discriminating the three comparison groups the , psychological well-being and recalled dream content dimensions each made statistically significant and approximately equal contributions.

Post-Hoc Data Analyses.

As mentioned earlier, post-hoc univariate analyses of variance were performed to assess potential inter-group differences on the demographic and covariate measures. The'. only significant difference obtained (of a potential set of 30 one-way ANOVA comparisons) vis-a-vis recurrent and non-recurrent dreamers on the dimension of dream activities, with the latter reporting a significantly higher frequency (F=4.55,p=.038). (n.b. Given that visual inspection of the well-being and dream content group means revealed several insubstantial group mean differences, post-hoc ANOVA's were performed only on (5) covariates (age, social desirability, psychological mindedness, dream report

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Table 16 Discriminant Analysis of Combined Well-Being & Dream Content Dimensions for the Total Participant Sample (n=67) Correlations Between Discriminating Variables and Canonical Discriminant Function

Discriminating Variable

Canonical Discriminant Function 1

Psychological Well-Being	· ·	•	
Neuroticism	1	•	. 129 ns
General Symptom Index '	. <u>.</u> (330 **
Anxiety		`,	322 **
- Depression	•		272 *
Life-Event Stress	- ,		256 *
Personal Adjustment			.129 ns
		:	

Recalled Dream Content Anxiety

	Anxiety	130	ns
	Archetypality	.362	**
	Friendly v. Aggressive Interactions	.383	**
	Positive v. Negative Affect	.227	*
	Success, Good Fort. v. Failure, Misfort.	.616	***
-	Dreamer Involved Hostilities	237	*

Canonical Discriminant Function 1 accounted for 96.3% of total variance in discriminant analysis

ns not significant * p<.05 ** p<.01 *** p<.001 frequency, and dream report activities)).

Additionally, pooled within-groups correlation matrices were calculated for the combined (10) covariate and (12) psychological well-being and recalled dream content dimensions (Appendix V).

Within the psychological well-being and recalled dream content correlation matrix (Table 17) Several findings are of note.

The first is the strong intracorrelation of psychological well-being and recalled dream content dimensions. Within the (6) psychological well-being dimensions, 11 of 15 pooled pooled within-groups correlations statistically were significant in the predicted direction (M=+/-.41,range=+/-.11-.76). And, within the (6) recalled dream content dimensions, 13 of 15 pooled within-groups correlations reached statistical significance in the predicted direction (M=+/-.28), range=+/-.01-.53).

Third was the absence of significant correlations between participant sex (not included as a covariate in the multivariate data analyses because of its dichotomous nature) and any of the psychological well-being and recalled dream content dimensions.

Pooled Within-Groups Correlation Matrix: Psychological Well-Being by Dream Content Measures											Ì
N	Anx	D	GSI	LES	PAd	DRA	Arc	F:A	₽:́N	S:M	, D
، مع ر					<u></u>		, 				
			~ '			-	y ft		e	Þ	
n		ĩ			1			•		. •	u.
Neurot	.55	. 38	.49	ns	53	.24	'ns	ns	ns	ns	•
Anx		.61	.76	ns	53	ns	ns	ns	ns	ns	
Depress	•		.64	'ns	36	ns	r. NS	'ns	ns	, ns	•
GSI	. •			.27	45	ns	ns	ns	ns	ns	
LES					ns	.35	ns	ns	ns	ns	
PAdj					•	ns	ns	ns	ns	ns	
DRAnx	aĩ			- I			25	33	28	ns	
Archet							, ,	29	ns	ns	
Fr:Agg			1	•	· •				.53	.39	
P:NAff				•						.45	
SGF : FMF		· -					· .			-	
DHost			• • • •	•	- 1		,	۰ •		•	

Two-Tailed Critical Value D = .05 with df = 65, r = +/-.202

ns: nonsignificant

Table 17

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The principal research results are thus as follows:

- (1) Strong statistical support was found for the hypothesis that the RD group would achieve scores on the psychological well-being measures indicating elevated anxiety, neuroticism, depression, life-event stress and somatic syptomatology, as well as a diminution in personal adjustment. (Comparison Levels I & II: RD v. PRD, RD v. NRD)
- (2) Content analyses of recurrent dreamers' dream reports yielded significantly lesser proportions of affiliative and positive-toned and greater proportions of aggressive, anxious and dysphoric dream content. (Comparison Levels I & II: RD v. PRD & NRD, RD v. PRD, RD v. NRD)
- (3) Archetypal dream content, hypothesized to be positively correlated with an open and more highly individuated person, was significantly less prevalent in the dream reports of the recurrent dream group. (Comparison Levels I and II: RD v. PRD & NRD, RD v. PRD, RD v. NRD)
- (4) The past-recurrent dream group achieved mean scores on the psychological well-being measures significantly above the RD and NRD groups. (Comparison Level II: RD v. PRD, PRD v. NRD)
- (5) The dream reports of the PRD group contained significantly elevated ⁵proportions of friendly-to-aggressive interactions, postive-to-negative affect and success & good fortune-to-failure and misfortune experiences. (Comparison Level II: PRD v. NRD, RD v. PRD)

(6) Archetypal dream content was significantly more prevalent in the dream reports of the PRD group than in either of the RD or NRD groups. (Comparison Level II: RD v. PRD, PRD v. NRD).

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(7) The three comparison groups were significantly discriminated along only one linear dimension (canonical discriminant function), which was composed roughly equally from psychological well-being and recalled dream content measures (Discriminant Analysis). Discussion

this final section the principal findings of In the research and their implications are discussed. These include: (1) insights afforded into recurrent dreams as psychologically relevant phenomena and the distinguishing characteristics of recurrent dreamers; (2) the separability of the recurrent from the past- and non-recurrent dream groups on the psychological well-being and dream content dimensions, and, the apparent psychological health value associated with the maintained cessation of a previously recurrent dream; (3) the asupport offered by the data for core elements of analytical psychology dream theory, including Jung's assertions of a positive relationship between recurrent dreams and neuroticism and an relationship inverse between neuroticism and dream archetypality; (4) strengths and potential limiting factors in with respect to their reliability, construct the data validity, external validity and generalizability; and (5) the theoretical and clinical implications of the data particularly as they address the relationship of dreaming to individual psychological adaptation.

The Psychological Significance of Recurrent Dreams.

The research results extend current understanding of recurrent dreams and their significance with respect to basic dimensions of psychological well-being. Recurrent dreamers clearly distinguished themselves from both past- and

non-recurrent dreamers in each of the multivariate

In the group comparisons on the (6) core dimensions of psychological well-being - and on nearly all the individual univariate well-being comparisons - the recurrent dream group below achieved scores significantly the pastand The marked non-recurrent dream groups. consistency and directionality of these findings is reflected in the fact that all multivariate comparisons of the RDGp with the other two groups were statistically significant and in the predicted direction; and that within these, 32 of a possible 36 univariate comparisons were statistically significant. Recurrent dreamers scored consistently above past- and on the well-being non-recurrent dreamers dimensions of neuroticism, anxiety, depression, general psychopathology symptomology and life- event stress, and significantly below them on the measure of personal adjustment. These data suggest that recurrent dreamers manifested a significantly diminished sense of psychological well-being relative to the other comparison groups. This relative diminution was also reflected in the recurrent dreamers' mean well-being scores falling below published normal population norms on each measure (Appendix I). Experimental hypothesis (1) is thus given strong empirical support.

The same discriminability of the recurrent dream group appears when considering the recalled dream content data. The recurrent dream group was significantly distinct from the

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past- and non-recurrent dream groups in each multivariate comparison and in 16 of 18 constituent univariate comparisons. Recurrent dreamers' dream reports contained significantly more anxiety- and hostility-toned content and significantly lesser proportions of affiliative-to-aggressive social interactions, positive-to-negative affect, and success and good fortune-to-failure and misfortune event outcomes. (n.b. The diminished archetypality of recurrent dreamers' dream reports is discussed below.)

These data clearly suggest that the dream reports of recurrent dreamers differ those ' of from pastand non-recurrent dreamers in more than the occasional occurrence for the former of recurrent dreams. Recurrent dreamers experienced significantly more anxious, dysphoric and conflict-oriented dream content than either of the other two groups. As such, the data strongly support experimental hypothesis (2). The data are also very much consistent with the general assertion of depth psychological dream theory that the dreams of individuals experiencing a recurrent dream will their perceived reflect a diminution in psychological well-being.

The results as they relate to the recurrent dream group basic points about recurrent make three dreams as The first, bridging the clinical psychological phenomena. theory of the depth psychologists dream (Freud, 1939, Jung, 1948a, 1971, Mattoon, 1978) and recent empirical recurrent studies (Klein, Fiss, et al. 1971, Cartwright dream and

Romanek, 1978, Cartwright, 1979), is that there indeed appears to be a link between the ongoing experience of recurrent diminution dreams(and measurable in experienced а psychological well-being. Recurrent dreamers do seem to be experiencing some kind of psychological conflict. The experienced intensity of this hypothesized conflict is apparently not so great as to compel one to seek help from a mental healh professional simply because of the continuation of a recurrent dream. However, the research data clearly indicate a systematic and statistically significant deficit across the entire range of well-being dimensions tapped here.

major point about recurrent "dreams as The second psychological phenomena is the apparent reverberation, across the full range of the recurrent dreamer's dream life, of. increased levels of dysphoric and conflict-oriented dream content. Though previous research has underscored the predominantly negative affective and experiential tone of individuals' recurrent dreams, thère had not previously been demonstrated a clear, across-the-board negative affective and experiential bias in recurrent dreamers' everyday dream content. The salience and directionality of this finding supports the position of the majority of clinical and empirical dream theorists that peoples' remembered dreams bear a strong positive relationship to their current state of psychological health/distress. (e.g., Cohen, 1979, Fiss, 1979, Kramer, Roth, 1979, Hall, 1977, Kramer, 1969)

The third major point, to be developed in more detail in

immediately following, the section is the clear. discriminability of recurrent from past-recurrent dreamers. The data strongly suggest that the maintained cessation of a previously recurrent dream, rather than reflecting а continuing vulnerability of the individual to a nonspecific area of psychological, conflict, seems to hold an apparent psychological health-value. That is, past-recurrent dreamers did not merely achieve well-being and dream content scores significantly above recurrent dreamers, but also statistically significantly above the non-recurrent dreamer control group (and, as well, above the published normal population norms on most all the well-being and dream content dimensions). The data thus suggest that a psychologically-facilitative quality may accrue to individuals who break or who have broken the repetitive cycle of their recurrent dreams.

Recurrent and Past-Recurrent Dreamers.

A second research focus was on individuals who, like recurrent dreamers have experienced a recurrent dream in adulthood but for whom the recurrent dream has ceased to recur (and, been so absent for a minimum period of one year). Data concerning the past-recurrent dream group (PRD) were pivotal in order to assess whether the maintained cessation of a previously-recurrent dream reflects a relative increase in perceived psychological well-being. And if so, how 'relative' is this increase? That is, is there any demonstrable psychological health-value associated with the resolution of a recurrent dream? Such data would comprise solid support for

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the position forwarded by Cohen and others that "dreaming is a psychological process with adaptive properties that can be investigated from the phenomenological (i.e., dream content) perspective" (Cohen, 1979, p. 256).

However, as noted earlier a major pitfall arises when employing a naturally occurring or 'real world' phenomenon such as recurrent dreams in this endeavor. That is, unlike the more circumscribed sleep laboratory studies which attempt to measure dream 'processing' of experimenter induced pre-sleep stressors (cf. Cohen, Cox, 1975, DeKoninck, Koulack, 1975) one is attempting to assess the relationship of individuals' recalled dream content to a much more global problem likely requiring a gradual nonspecific overall adjustment more and (Cohen, 1979, p. 256). Nonetheless, a major advantage to be had in studying a naturally occurring phenomenon in order to demonstrate a dreaming-psychological adaptation link is in the significantly enhanced ecological validity of the results.

The present data concerning the psychological well-being and dream content scores of the past-recurrent dreamers provide strong empirical support for the above hypothesized In each of the well-being and dream content linkage. and non-recurrent comparisons with recurrent dreamers, past-recurrent dreamers achieved more psychologically adaptive content and less conflict indicative well-being and dream A11 of the multivariate comparisons reached scores. statistical significance, as did two-thirds, of the constituent univariate comparisons.

Past-recurrent dreamers achieved significantly higher personal adjustment scores significantly lower and neuroticism, anxiety, depression, general (psychopathology) and life-event stress scores than symptomatology, the recurrent dream group. When compared with the non-recurrent dreamer control group past-recurrent dreamers again achieved significantly lower depression, general (psychopathology) symptomatology and life-event stress scores. As well, when compared against published normal population norms on each of the well-being measures the past-recurrent , dream group achieved scores above (more psychologically adaptive than) the norm on five of the six dimensions (i.e., neuroticism, . anxiety, depression, general (psychopathology) symptomatology, and life-event stress).

Two major conclusions emerge from these data: (i) past-recurrent dreamers appear to experience a significantly higher sense of psychological well-being than recurrent dreamers; and (ii) this elevation in psychological well-being also extends above both the non-recurrent dreamer control group as well as published normal population norms. Experimental hypothesis (4.) is thus strongly supported.

The same discriminability of past-recurrent from recurrent and non-recurrent ⁴ dreamers occurs in the multivariate comparisons of their recalled dream content. In addition to both multivariate analyses achieving statistical significance, 8 of 12 constituent univariate comparisons also reached significance. When compared with the recurrent dream

group past-recurrent dreamers' necalled dream content contained significantly greater proportions of friendlyto-aggressive social interactions, positive-to-negative affect, and success, good fortune-to-failure, misfortune experiences. As well, past-recurrent dreamers' dream reports contained significantly less anxiety- and hostility-toned content. When compared with the non-recurrent dreamer control group past-recurrent dreamers reported significantly greater ratios of positive-to-negative affect, and success, good fortune-to-failure, misfortune experiences.

In addition, when compared against published normal/non-psychiatric norms for the six dream content dimensions, past-recurrent dreamers achieved. scores above the norm (more affiliative, positively-toned and successful/ fortuitous and less anxious, hostile and conflict-indicative in each case.

The data thus indicate past-recurrent dreamers appear to experience significantly lesser proportions of conflict oriented dream content than both recurrent and non-recurrent (control) dream groups; and, their recalled dreams contain more affiliative and positively-toned content and less anxious, hostile and aggressive content than published normal population norms. Hypothesis (5.) is thus strongly supported.

Reyond the disparate mean scores of the recurrent and past-recurrent dream groups on the well-being and dream content measures, two other factors accounted for the strength of their discriminability: the presence of the non-recurrent dream group as a buffer between the two on each of the (12) dependent measures; and the nonsignificant differences among all three groups on all but one of the (9) demographic and other covariate measures.

Analytical Psychology Dream Theory.

In addition to exploring the psychological significance of recurrent dreams the second major focus of this research was on assessing the empirical efficacy of core tenets of analytical psychology dream theory. Analytical psychology was presented earlier as a preferred theory with which to explore recurrent dreams. And, as such it was shown to possess sufficient theoretical depth, consistency with current neorophysiological, neuropsychological and psychological understandings of dreaming, and specific hypotheses concerning psychological significance of both recurrent the and previously-recurrent dreams.

Dreaming and Personality.

Jungian personality theory holds there to be an instinctive, organismic (push toward optimal psychological development, individuation, that is an elemental aspect of human existence. Jungian/dream theory has at its root the assumption that dreaming is a psychological process in which elements of personality outside eqo-consciousness communicate with the ego in their own symbolic-representational language. As such, Jungian dream theory holds dreams to be important sources of insight into one's overall psychic health and 3 in order to offer empirical support for development. Thus,

analytical psychology dream theory 3 an experimental investigation of the relationship between personality and recalled dream content must needs produce results substantiating just such a dream content-psychological adaptation link. The present study provides the following two sorts of supporting data.

First, the separate multivariate group comparisons on the well-being and dream content dimensions each achieved statistically significant differences between the groups, and in the predicted direction. The dream content variables were thus equally potent discriminators of the three groups.

Second, the discriminant analysis performed on the combined well-being and dream content dimensions for all three groups revealed that of the six measures attaining statistically significant correlations with the canonical discriminant function, an equal number came from each of the well-being and dream content variable clusters.

Recurrent Dreaming and Neuroticism.

However, the most basic support for analytical psychology dream theory lies in the data concerning the recurrent and past-recurrent dream groups. Here, clear support is generated for the association of an ongoing recurrent dream with an as-yet unresolved psychological conflict.

Jungian theory holds recurrent dreams to point to a psychological conflict "that has been in existence for a long ⁵ time and is particularly characteristic of (ingrained in) the conscious attitude of the dreamer" (Jung, in Adler, 1971, p.93). The fact that the recurrent dream group achieved the lowest mean scores on each of the psychological well-being measures significantly below those of both other dream groups - is certainly consistent with Jung's assertion. And, of the two specific well-being measures most closely tapping the psychological construct of neuroticism - Eysenck's Neuroticism Scale and Derogatis' General Symptomatology Index - each successfully discriminates the recurrent dream group from the other dream groups. The results thus support the recurrent dream-neuroticism link.

important facet of analytical psychology theory's An conceptualization of recurrent dreams is 'Jung's assertion that focal psychological conflict resolves once the (or is resolved) the recurrent dream will " cease (Jung, in Mattoon, 1978, p.84). Jung posits that the cessation of a previously recurrent dream shall be accompanied by a relative elevation in one's experienced level of psychological health (or well-being). Jungian dream theorists caution, however, that a demonstrably increased sense of one's well-being will likely lag behind the actual cessation of the recurrent dream by a period approaching one year (Wozny,1980, personal communication). Thus, in order to comprise a suitable comparison group, recurrent dreamers would be best contrasted against past-recurrent dreamers with a maintained (c.l year) cessation of their recurrent dream.

The results addressing this recurrent - past-recurrent dreamer comparison clearly support Jung's hypothesis.

Past-recurrent dreamers not only manifested significantly elevated psychological well-being scores above the recurrent dream group but also significantly above the non-recurrent dreamer control group as well. These data clearly support the Jungian assertion of relationship between the maintained cessation of one's previously recurrent dream and an enhanced sense of psychological well-being, at least in relation to 'current' recurrent dreamers.

The experimental design of this research precludes conclusive statements about past-recurrent dreamers' experience of a significantly enhanced sense of psychological health over that when still experiencing their recurrent dream. And, given the apparent enduring guality of adults' recurrent dreams - in this research an average of 8.2 years such data may not be easily come by. The data generated here with respect to recurrent versus past-recurrent dreamers make as strong case as can be made, within the confines of a static group comparison, of the discriminability of the two dreamer groups.

Recurrent Dreams and Archetypality.

As noted in the introduction an integral part of analytical psychology dream theory's assertion of a recurrent dream - neuroticism link is the assertion that an ongoing 'heurotic conflict is coupled with diminished access to 'deeper'; collective unconscious or archetypal elements of one's personality. Recurrent dreamers should thus be expected to experience diminished 'archetypality' or collective
unconscious content in their remembered dreams (experimental hypothesis 3.).

The results strongly support this hypothesis. Recurrent dreamers experienced significantly less archetypality in their dream reports than either of the other groups. Recurrent dreamers recalled dreams thus appeared to contain lesser proportions of 'deeper' collective unconscious material, in line with Jung's assertion that recurrent dreamers experience a blockage or diminution in the flow of psychologically adaptive and ego-alien material that normally contributes to one's overall psychological balance.

As well, the operationalization of dream archetypality employed here (Kluger, 1975) proved robust in generating strong inter-rater reliability coefficients for its three constituent scales ('affect', 'rationality', 'everydayness') of .81, .86, and .90 respectively (n=849 dream reports). These compare favorably with reliability coefficients from previous studies employing Kluger's archetypality scale (Kluger, 1975, Faber, et al., 1978, 1983, Cann, 1979). Also, in line with Faber, et al. and Cann there was no attempt made here to employ a fourth Kluger archetypality scale, 'Presence of Mythological Parallel'. As Kluger himself noted, this most subjective of the constituent archetypality scales is extremely difficult to° rate reliably, and a thorough knowledge of world myths would be required both of the raters and for the creation of standard scoring criteria.

With respect to past-recurrent dreamers the data also

support Jung's hypothesis of an inverse relationship between dream archetypality and neuroticism. The past-recurrent dream qroup manifested significantly greater proportions of archetypality in their dream reports, coupled with their significantly lesser neuroticism scores on the well-being measures. The past-recurrent dreamers' proportion of dream reports achieving criterion archetypality ratings (31%) exceeded not only that of the recurrent and non-recurrent dreamers (12% and 18% respectively), but also that of previously reported norms (c.20-25%) by Kluger and Cann. Experimental hypothesis (6.) is thus given solid support.

This study thus has broad positive implications for three basic aspects of analytical psychology dr. in theory. Recurrent dreamers did indeed manifest significantly greater evidence of psychological conflict or neuroticism in their performance on the psychological well-being; measures and significantly lesser evidence of archetypality in their recalled dreams. Previously-recurrent dreamers reflected significantly less in their performance on evidence neuroticism of the psychological tests and their recalled dreams contained proportional elevations in archetypality. And, last, . neuroticism or psychological distress in waking life does be negatively correlated with dream report appear to archetypality.

Equally important, these results extend beyond the above three analytical psychology dream theory postulates to its most basic tenet; that is, they offer empirical data solidly

in line with Jung's assertion that dreams bear a direct relation to the process of individuation (psychological adaptation) and contain expressions of one's current state in this process. The salience of this empirical support is enhanced by the non-patient and non-clinical characteristics of the research participants. This point will be taken up below, when the overall clinical and theoretical implications of the data are discussed.

Potential Limiting Factors in the Data.

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Despite the very strong directionality of the research some 'potential alternative hypotheses should be results considered in addition to those above. First, can the results be explained by systematic group differences in other than the presence, past presence or absence of a recurrent dream? The number and range of covariate measures employed augurs rather strongly against this. That is: the dreamer groups were not significantly different with respect to any of the demographic variables (age, sex, education, socioeconomic status); they were nonsignificantly different on the psychological variables desirability, defensiveness and psychological of social mindedness; and, they did not significantly differ with regard to the number of dreams reported in the collection period and their mean length. In at least these (9) important respects, the comparison groups were comparable.

The second potential rival hypothesis concerns the representativeness by the participant sample of the larger, general population whence they came. With one exception it can

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be said the participant sample was indeed representative. The total sample's mean scores on 8 of the 9 covariate measures were within one standard deviation of published normal population norms; and, their overall mean scores on all the psychological well-being measures and 5 of the 6 dream content dimensions were within one standard deviation of published norms.

Participants were on average better educated than the norm, (M=14.2 years, SD=2.1), an oft-observed phenomenon in psychological research (cf. Hall, et al, 1982, Derogatis, 1976, Kramer, et al., 1971). However, this education difference is moderated by the fact that only 18% of the participant sample (12/67)university students; thus the usual were over-representation of such students in clinical psychological research was averted. The other deviation from published norms occurred in the participants' higher mean ratio of friendly-to-aggressive social interactions.

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The sole anomaly in the participant sample is the overrepresentation of women (85%, or 57/67 participants). Given the exclusively volunteer nature of participation in the research and its length (c.18-21 days), it was decided not to solicit male participants after the female-heavy nature of the data became clear. The rationale for so doing was that the potential cost of unwanted and uncontrollable demand characteristics - involving potential sex differences with regard to participant motivation, interest in the research and willingness to complete its three phases - outweighed the

potential gain with respect to the sexual representativeness of the data. Regardless, the overrepresentation of women is of note.

the small number of male participants (n=10; 5 Given recurrent, 2 past- and 3 non-recurrent dreamers) the results, strictly speaking, should be confined to the population of female recurrent dreamers. One potential experimental confound thus the tendency for women is to report increased psychological distress relative to men (Derogatis, 1976, Beck and Beamesderfer, 1974, Spielberger, et al., 1970, Eysenck, 1969, Gough, Heilbrun, 1965). Since the number of male participants was insufficient to enable proper statistical comparison this pattern must be presumed to hold here. However, this would not account for the strong statistical differences between the three comparison groups on the psychological well-being measures. As well, the relatively few sex differences observed in the recalled dream content empirical literature (cf. Hall, et.al. 1982, Winget and Kramer, 1979) do not explain the clear discriminability of the dreamer groups on the (6) dream content analysis dimensions. Additionally, with regard to the participan't sample, pooled within-groups correlations of participant sex by covariate, well-being and dream content dimensions revealed no significant relationships (Appendix V). Thus, though the generalizability of the research data to male recurrent should be tentative at present, the directionality and significance of the results for female recurrent dreamers and for largely female samples of recurrent dreamers is clear.

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potential limiting factor involves The third the question, 'How veridical are the operationalizations of core dimensions of psychological well-being and recalled dream content?' With respect to psychological well-being, the of constituent delineation six dimensions from the consensually defined global dimension of psychological health-neuroticism (cf. Costa and McCrae, 1980) is relatively direct and straight-forward. That is, each of the criterion measures of psychological well-being derives from the earlier-elaborated cluster of psychometrically defined psychological well-being dimensions.

With regard to the criterion measures of recalled dream (content, though the empirical validation literature is not as extensive as that for the psychological well-being dimensions it is certainly sufficient to establish core dream content dimensions (cf. Winget and Kramer, 1979, Rechtschaffen, 1978, Hauri, 1975, 1967). That is, the criterion dream content dimensions with respect to social interactions, anxiety, hostilities, successful and unsuccessful event outcomes and dream affect are all well validated (cf. Winget and Kramer, 1979).

The operationalizations of psychological well-being and salient dimensions of dream content are thus held to be sound. The fourth potential limiting factor involves the question of adequate operationalization of the key Jungian construct of dream archetypality. While the Kluger 'dream archetypality' scales are clearly not perfect in their

operationalization of this somewhat elusive Jungian construct, it must be said that they have proved reliable in their use in this as well as in other recent studies (i.e., Gann, 1979, Faber, et al., 1978, 1983). The main source of operational 'noise' in the Kluger scales is in the 'mythological parallel". subscale; while it has strong face validity with the Jungian concept of archetypal representations it is insufficiently operationalized from a psychometric perspective. Since the exclusion of this fourth Kluger scale entails a reduction in potential descriptive power (Kluger employed the method of judging a dream report to be archetypal if it achieved criterion ratings on three out of the four subscales), a correction was employed in the present study. Dream reports were deemed archetypal only if they achieved criterion ratings on all three Kluger subscales. This, coupled with the strong inter-rater reliabilities on the three Kluger scales addresses the question of their reliability.

Regarding the validity of Kluger's operationalization of dream archetypality, the most that can be said at present (i.e., until a better validated measure of mythological dream content appears) is that, as outlined above, his delineation of core archetypality dimensions is consistent with those outlined by Jung (1948a,pp.66,77).

Theoretical and Clinical Implications.

This investigation of recurrent dreams has at least two important theoretical implications over and above its support for core analytical psychology theory tenets. First, the data

clearly support the generic depth psychological position that dreams express salient processes of psychological adaptation. very clearly The three dreamer comparison groups were discriminated by their performance on the psychological well-being and recalled dream content measures; and, each cluster of measures made an approximately equal contribution inter-group separation on this ' to the same linear (discriminant function) dimension. These datas thus show that individuals' recalled dream content expresses material relating directly to their current states of psychological adaptation and/or stasis.

The 'second theoretical implication relates to the observation by Cohen (1979) that current dream content studies adaptation tend toward 'microscopic representations' of of real-world events, rather than real-world investigations per (Cohen, 1979, p. 256)¹. se This study represents such a real-world study of dream content and psychological adaptation which demonstrates that the traditional caution against them (i.e., that "in the real world, problems are often less specific, and adaptive changes may be more gradual and thus difficult to identify" Cohen, 1979, p.256) need not hold. That is. it was possible to employ the naturally occurring phenomenon of recurrent (and past-recurrent) dreams to study dream content and psychological adaptation links. This was done even though the endurance and the resolution of recurrent dreams is obviously a lengthy process; i.e., by comparing individuals at different stages of recurrent, groups of

past-recurrent, and non-recurrent dreaming rather than trying
to solely study (or manipulate) the recurrent dream.

The principal clinical implications of this study lie in its derivation of psychologically relevant information from individuals' recalled dreams, through essentially to assess core tenets non-interpretive methods, of a demonstrably interpretive dream theory (Jungian^C analytical psychology theory). This suggests that clinical dream theory and empirical dream research camps possess greater common ground-than generally acknowledged, with obvious stimulative effects for each. For clinical dream theorists and clinicians the opportunity exists to buttress clinical interpretive dream-work with relevant empirical tools (e.g., content . analysis of clients' reported dreams or dream diaries); and, thereby correct a continuing 'neglected function' (cf. to 197,7) in the clinical dream theory literature by Mattoon, subjecting their work to empirical test. For empirical deam researchers there exists the opportunity to assess the merits of their respective theoretical paradigms in much more of an vivo and, thus, non-laboratory and 'mon-microscopic' in manner.

This thesis is offered as a contribution toward these ends.

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Appendix Ia . Covariate Measure Norms

	Covariate Meąsure	Population Norm	Present Sample
	Age (yrs.)	c.25 (Hall, Van de Castle, 1966) * c.40 (Kramer, et.al., 1970)	33.9
	(Sex*) (Women/Men)	65%/35% (Kramer,et.al.,1970) 57%/43% (Hall,et.al.,1982)	85%/15%
	Education (yrs.)	c.11.5 (Kramer,et.al.,1970) c.14 (Hall,et.al.,1966,1982)	14.2
	SES (Blishen)	-1	171
5	Social Desirability (SDS)	16.5 (Barthel,Crowne,1962) 11.1 (Evans,1979)	13.9
_	Defensiveness (EPI-L))	2.4 (Eysenck, Eysenck, 1976)	2.2
¢	Psychological Mindedness (ACL)	49.1 (Heilbrum, 1965)	ي . 49.7
	Dream Report Frequency (/night, home)	0.5 (Webb,Kersey,1967)	0.89
-	Dream Report Length (# words)	125 (Hall,Van de Castle,1966) 163 (Hall,et.al.,1982)	137
	Dream Report Activities (/100 D.R.words)	4.9 (Hall,Van de Castle,1966)	6.5

* Sex not entered in data analyses as covariate.

Appendix Ib Psychological Well-Being Measure Norms

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	Psychological Well-Being Measure	Population Norm	Present Sample
	Neuroticism (EPI-N)	64 (Normal)(Howarth,Browne,1972) 80 (Mixed Neurotic)(Eysenck,1968)	66.0
	General (Psychopathology) Symptom Index (SCL90-R)	52 (Normal)(Derogatis,1976) 69 (Psy.Outpts.)(Derogatis,1976)	60.1 ``
	Trait Anxiety (STAI)	52 (Normal)(Spielberger,1970) 61 (Psy.Inpts.)(Spielberger,1970)	<mark>،53.7</mark> 4
•	Depression (BDI)	10- (Normal)(Bumberry, 1967) 21+ (Clin. Depressed)(Beck, 1974)	8.3
~	Life-Event Stress (PLEI)	4.6-6.5 (Normal)(Grant,1981) 7.2-9.5 (Psy.Outpts.)(Grant,1981)	4.9
	Personal Adjustment (ACL)	50 (Normal)(Gough,Heilbrum,1965)	46.5

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Appendix Ic Dream Content Category Norms

Dream Content Category	Population Norm	Present Sample
Friendly Interactions Aggressive Interactions Ratio Fr:Agg Interactions (H-VdC)	40% (HVdC) 18% (KWW) 46% (HVdC) 20% (KWW) .87 (HVdC) .90 (KWW) .70 (HDBW)	355 315 1.07
Positive Affect Negative Affect Ratio Pos:Neg Afect (H-VdC)	14% (HVdC) 4% (KWW) 57% (HVdC) 12% (KWW) .33 (HVdC) .33 (KWW)	238 588 .38
Successes Good Fortunes Failures Misfortunes Ratio SGF:FMF (H-VdC)	11% (HVdC) 3% (KWW) 6% (HVdC) 5% (KWW) 13% (HVdC) 9% (KWW) 38% (HVdc, HDBW) 34% (KWW) .38 (HVdC) .19 (KWW)	8% 10% 14% 37% .35
Anxiety (G-G)	61% (KWW)	498
Hostility Out-Overt Hostility Inward Ambivalent Hostility Totăl Dreamer Involved Hostility (G-G)	10% (KWW) 19% (KWW) 24% (KWW) 53% (KWW)	14% 6% 17% 37%
Archetypality (K)	20-24% (KCF)	19%
* Normative dream content da as percentage of normal po reports containing 1+ cont	ta presented pulation dream ent category.	· · · · · · · · · · · · · · · · · · ·
H-Vdc: Hall, Van de Castle, 19 G-G: Gottschalk, Gleser, 196 K: Kluger, 1975 HDBW: Hall, Domhoff, ét.al., 19 KWW: Kramer, Winget, Whitman KCF: Kluger, 1975, Cann. 1976	66 9 982 ,1972 9. Faber.et.al. 1978,1983	· · · · · · · · · · · · · · · · · · ·

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Appendix IIa Research Announcement

Dreamers wanted

Ronald Brown, a McGill doctoral student in clinical psychology, is on the lookout for volunteers for a study of dreams.

Brown will be investigating "possible connecting links between peoples' dreams and their current life situations." The recurrent dream and whether it has some special psychological meaning will be given special attention.

In addition to recurrent dreamers, Brown welcomes people who have never had a recurrent dream, as well as those who may have had recurrent dreams in the past. Participants are sought from diverse backgrounds age, sex, occupation, education, and frequency of dreaming. Individuals remain at home while taking part. (This is not a laboratory investigation of dreams.]

Participation in this study will in-

volve the following tasks: (i) completion of a dreaming questionnaire and a set of tests measuring aspects of one's current life situation, (ii) recording on prepared 'Dream Record Cards' each dream that can be remembered over a two week period, and (iii) completion of a second version of the dreaming questionnaire, plus psychological tests.

All participant data will be coded alpha-numerically, not by name or other identifying information.

While this study does not offer dream interpretation to participants, it will give them the opportunity to learn about current psychological theories of dreams, and as well the opportunity to see the types of content that make up their dreams.

Dreamers who would like to take part in this study are asked to call Ronald Brown.

Appendix IIb

Informed Consent - Confidentiality of Participation Form

In signing this form I acknowledge that I have been informed about the specific tasks involved in participation in this study. I agree to take part with the assurance that the confidentiality of my participation will be strictly maintained and that my name and any other identifying information will be known only to the author of this study, Ronald J. Brown.

I understand this study is composed of three parts;

- (i) completing a dreaming questionnaire and a set of tests which measure aspects of each participant's, current life situation;
- (ii) keeping a written record of each remembered dream over a two-week period;
- (iii) completing for a second time the dreaming questionnaire and the psychological tests.

In agreeing to participate in this study I understand that I am free to withdraw from it at any time, should I choose to do so.

Your Signature:

Today's Date:

Appendix IIc

Dreaming Questionnaire

- 1. Participant Code:
- 2. Sex:
- 3. Current Age:
- 4. Marital Status:
- 5. Current Occupation:
- 6. Education (Degrees Obtained):
- 7. Do you dream on a regular basis; that is, on most nights? Yes No
- 8. During the average week can you remember dreaming: Every Night Every Other Night Once or Twice/Week Less Often
- 9. When you wake up in the morning can you usually remember having 1 2 3 4 More than 4 dreams the previous night?
- 10. When you wake up can you usually remember your dreams: Easily Without Much Effort With Some Effort Much Effort Great Effort
- 11. When you wake up do you usually remember your dreams: Entirely Almost as a Whole With Some Missing Parts Many Missing Parts Only as a Fragment
- 12. Have you ever had a recurrent dream; that is, a dream that when you remember it leaves you with the subjective feeling of having had it before? Yes No Uncertain
- 13. Can you remember having had such a recurrent dream: In Early Youth In Adolescence As an Adult Not Sure Never
- 14. Have you had a recurrent dream in the past twelve months? Yes No Uncertain
- 15. Are you currently having a recurrent dream? Yes No Uncertain
- 16. If applicable, approximately how long did your recurrent dream persist or is persisting? A Week A Month Several Months A Year More than a Year/Please Specify
- 17. If applicable, please describe your recurrent dream. (n.b. Try to include in your description such aspects as the dream's setting, the main people or things involved, the main theme, the ending (if it has one), and whatever other details you think pertinent.)
 - .
- 18. Please describe a recent dream. (n.b. Try to include in your description such aspects as the dream's setting, the main people or things involved, the main theme, the ending (if it has one), and whatever other details you think pertinent.)

- 19. How much attention do you usually pay towards your dreams? None Little Some Much Very Much
- 20. How much significance do you usually attach to your dreams? None' Little Some Much Very Much
- 21. Do your deams usually end on a note of: Completion Open-Endedness About Half and Half Not Sure

For Questions 22.-32. please indicate how often ' each feeling appears in your remembered dreams.

22.	Happiness:	Always	Often	Sometimes	Seldom	Never	
23.	Fear:	Always	0ften	Sometimes	Seldom	Never	
24.	Sadness:	Always	Often	Sometimes	Seldom	Never	
25.	Relaxed:	Always	Often	Sometimes	Seldom	Never	
26.	Confusion:	Always	0ften	Sometimes	Seldom	Never	
27.	Satisfaction:	Always	Often	Sometimes	Seldom	Never	
28.	Anger:	Always	Often	Sometimes	Seldom	Never	
29.	Frustration:	Always	Often	Sometimes	Seldom	Never	
30.	Sexual Arousal:	Always	Often	Sometimes	Seldom	Never	
31.	Apprehension:	Always	0fțen	Sometimes	Seldom	Never	
32.	Embarrassment:	Always	Often	Sometimes	Seldom	Never	

- -33. In your dreams what is the feeling you most often feel? Happiness Fear Sadness Relaxation Confusion Satisfaction Anger Frustration Sexual Arousal Apprehension Embarrassment Another Feeling/Please Specify.
- 34. In your dreams are you more likely to be feeling: Anxious Relaxed Not sure
- 35. In your dreams are you more likely to be doing things: Willingly Against Your Will Not Sure
- 36. In your dreams are you more likely to experience: Success Failure Not Sure
- 37. In your dreams which are you more likely to experience? Good Luck/Good Fortune Bad Luck/Misfortune Not Sure
- 38. In your dreams which are you more likely to be feeling? Positive Feelings Negative Feelings Not Sure

- 39. Are you currently taking any prescription medication? Yes No If so please specify.
- 40. Have you any previous experience in working with your dreams? If so please specify.
- (n.b. Questions 41.-43. are from Derogatis' Symptom Check-List 90-R.)
- 41. How much have you been bothered lately by trouble falling asleep? None A Little Moderately Quite a Bit Extremely
- 42. How much have you been bothered lately by early a.m. awakenings? None A Little Moderately Quite a Bit Extremely
- 43. How much have you been bothered lately by restless, disturbed sleep? None A Little Moderately Quite a Bit Extremely

Appendix IId

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State-Trait Anxiety Inventory, Spielberger, et.al., (1970)

Trait Anxie ty Scale DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each state- ment and then blacken in the appropriate circle to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.		ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21. I feel pleasant		0		3	۲
22. I tire quickly	, 	0	0	3	
23. I feel like crying		1	0	3	۲
24. I wish I could be as happy as others seem to be	•	0	0	3	۲
25. I am losing out on things because I can't make up my mind	l soon enough	0	0	()	٩
26. I feel rested	·	0	0	3	۹
27. I am "calm, cool, and collected"		1	(()	0	۲
28. I feel that difficulties are piling up so that I cannot overce	ome them	0	1	3	۲
29. I worry too much over something that really doesn't matt	er	0	· @	3	۲
30. I am happy	······ .	0	2	3	۲
31. I am inclined to take things hard	· · ·	0	1	3	٢
32. I lack self-confidence	• • • • • • • • • • • • • • • • • • • •	•	2	3	۲
33. I feel secure		0	0	3	۲
34. I try to avoid facing a crisis or difficulty	, 	1	2	3	۲
.35. I feel blue	, ,	0	2	0	۲
36. I am content		Ū,	0	` ©`	٩
37. Some unimportant thought runs through my mind and be	others me	0	2	•	۲
38. I take disappointments so keenly that I can't put them ou	t of my mind	0	0		. 0
39. I am a steady person		0	0	0	, @
40. I get in a state of tension or turmoil as I think over my rece	ent concerns and			•	
interests	``````````````````````````````````````	0	3)	•

Appendix IIe

5.

Social Desirability Scale (Marlowe, Crowne, 1964)

LISTED BELOW ARE A NUMBER OF STATEMENTS CONCERNING PERSONAL ATTITUDES AND BEHAVIORS. READ EACH ITEM AND NOTE WHETHER THE STATEMENT IS TRUE OR FALSE AS IT PERTAINS TO YOU PERSONALLY.

1.	BEFORE VOTING I THOROUGHLY INVESTIGATE THE OUALIFICATIONS OF ALL CANDIDATES.	1.	Т	or	F
2.	I NEVER HESITATE TO GO OUT OF MY WAY TO HELP SOMEONE IN TROUBLE.	2.	т	or	F
з.	IT IS SOMETIMES HARD FOR ME TO GO ON WITH MY WORK IF I AM NOT ENCOURAGED.	з.	T	or	F
4.	I HAVE NEVER INTENSELY DISLIKED ANYONE:	4.	Т	or	F
5.	ON OCCASION I HAVE HAD DOUBTS ABOUT MY ABILITY TO SUCCEED IN LIFE.	5.	Т	or	F
6.	I SOMETIMES FEEL RESENTFUL IF I DON'T GET MY WAY.	6.	т	or	F
7. `	'I AM ALWAYS CAREFUL ABOUT MY MANNER OF DRESS.	7.	T	or	F
8.	MY TABLE MANNERS AT HOME ARE AS GOOD AS WHEN I EAT IN A RESTAURANT	8.	T	or	F
9.	IF I COULD GET INTO A MOVIE WITHOUT PAYING FOR IT AND BE SURE I WAS NOT SEEN,	I			
	WOULD PROBABLY DO IT.	9.	T	or	F
10.	ON A FEW OCCASIONS I HAVE GIVEN UP DOING SOMETHING BECAUSE I THOUGHT TOO LITTL	Е			
•	OF MY ABILITY.	10.	Т	or	F
11.	I LIKE TO GOSSIP AT TIMES.	11.	Т	or	F
12.	THERE HAVE BEEN TIMES WHEN I FELT LIKE REBELLING AGAINST PEOPLE IN AUTHORITY				
	EVEN THOUGH I KNEW THEY WERE RIGHT.	12.	Т	or	F
13.	NO MATTER WHO I'M TALKING TO I AM ALWAYS A GOOD LISTENER.	13.	T	or	F
-14.	I CAN REMEMBER 'PLAYING SICK' (PRETENDING TO BE ILL) IN ORDER TO GET OUT OF				
	DOING SOMETHING.	14.	Т	or	F
15.	THERE HAVE BEEN OCCASIONS WHEN I TOOK ADVANTAGE OF SOMEONE.	15.	T	or	F
16.	'I'M ALWAYS WILLING TO ADMIT IT WHEN I MAKE A MISTAKE.	16.	Т	or	F
17.	I ALWAYS TRY TO PRACTICE WHAT I PREACH.	17.	T	or	F
18.	I DO NOT FIND IT PARTICULARLY DIFFICULT TO GET ALONG WITH LOUD-MOUTHED; OBNOX-				
	IOUS PEOPLE.	18.	т	or	F
19.	I SOMETIMES TRY TO GET EVEN, RATHER THAN FORGIVE AND FORGET.	19.	Т	or	F
20.	WHEN I DO NOT KNOW SOMETHING I DO NOT MIND AT ALL ADMITTING IT.	20.	T	or	F
21.	I AM ALWAYS COURTEOUS, EVEN TO PEOPLE WHO ARE DISAGREEABLE.	21.	Т	or	F
22.	AT TIMES I HAVE REALLY INSISTED ON HAVING THINGS MY OWN WAY.	22.	Ť	or	·F
23.	THERE HAVE BEEN OCCASIONS WHEN I HAVE FELT LIKE SMASHING THINGS.	23.	T	or	F
24.	I WOULD NEVER THINK OF LETTING SOMEONE ELSE BE PUNISHED FOR MY WRONGDOINGS.	24.	Т	or	F
25.	I NEVER RESENT BEING ASKED TO RETURN A FAVOR.	25.	Т	or	F
26.	I'VE NEVER BEEN IRKED WHEN PEOPLE EXPRESSED IDEAS VERY DIFFERENT FROM MY OWN.	26.	T	or	F
27.	I NEVER MAKE A LONG TRIP WITHOUT CHECKING THE SAFETY OF MY CAR.	27.	Т	or	F
28.	THERE HAVE BEEN TIMES WHEN I WAS QUITE JEALOUS OF THE GOOD FORTUNE OF OTHERS.	28.	T	or	F
29.	I HAVE ALMOST NEVER FELT THE URGE TO TELL SOMEONE OFF.	29.	Т	or	F
30.	I AM SOMETIMES IRRITATED BY PEOPLE WHO ASK FAVORS OF ME.	30.	Т	or	F
31.	I HAVE NEVER FELT THAT I WAS PUNISHED WITHOUT A CAUSE.	31.	Т	or	F
32.	I SOMETIMES THINK THAT WHEN PEOPLE HAVE MISFORTUNES THEY ONLY GET WHAT THEY	¢	•		
	DESERVED.	32.	Т	or	F
22	T HAVE NEVED DELTREDATELY SAID COMPANYANC THAT HUDT COMPONE'S FEELINGS	77	ጥ	07	· F.

Appendix IIf

Eysenck Personality Inventory Form A-1

(Eysenck; Eysenck, 1968)

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	1.	Do you often long for excitement?	Yss	No		•		
	2.	Do you often need understanding friends to cheer you up?	Yas	No	31.	Do ideas run through your head so that you cannot sleep?	Tes	No
	3.	Are you usually carefree?	Yes	No	32.	If there is something you want to know about, would you rather look it up in a book than talk to someone shout if 2	Yes	No
•	4,	Do you find it very hard to take no for an answer?	Yes	No	33.	Do you get paipitations or thamping in your heart?	Yes	No
	5.	Do you stop and think things over before doing any- thing?	Yes	No	34.	Do you like the kind of work that you need to pay close attention to?	Ym	Хо
	6	If you say you will do something do you always keep your promise, no matter how inconvenient it might he to do an?	Yes	No	35.	Do you get attacks of shaking or trembling?	Yes	No
	1	Does your mood often go up and down?	Yes	No	36.	Would you always declare everything at the customs, even if you knew that you could never be found out?	,Yee	юК
	8.	Do you generally do and say things quickly without stopping to think?	Yes	No _	37.	Do you have being with a crowd who play jokes on one another?	Tes	No
	۶.	Do you ever feel "just miserable" for no good reason?	Yes	Na	38.	Are you an irritable person?	Yes	No
	, 10.	Would you do almost anything for a dare?.	Yes	No	39.	Do you like doing things in which you have to act quickly?	Yes	уо
•	11.	Do you suddenly feel shy when you want to talk to an attractive stranger?	Yes	No	40.	Do you worry shout awful things that might happen?	Y94	No
,	12.	Once in a while do you lose your temper and get	Yes	No	41.	Are you slow and unhurried in the way you move?	Toe	No
ł	13.	Do you often do things on the spur of the moment?	Yos	No	42	Have you ever been late for an anonintment or work?	Yes	Ňo
	14.	Do you often worry about things you should not have done or said?	Yes	No	42		V -4	Ve
	15.	Generally do you prefer reading to meeting people?	Yes	No	43.	Do you have many hightmares (1.846	NO
	16.	Are your feelings rather easily hurt?	Yes	No	44,	Do you like talking to people so much that you would never miss a chance of talking to a stranger?	Тм	No
,	17.	Do you like going out a lot?	Yes	No	45.	Are you troubled by aches and pains?	Yes	No
•	18,	Do you occasionally have thoughts and ideas that you would not like other people to know about?	Yes	No	46.	Would you be very unhappy if you could not see lots of people most of the time?	Xee	No
	19.	Are you sometimes bubbling over with energy and sometimes very sluggish?	Yes	No	47	Would you call yourself a nervous person?	Yes	No
	20.	Do you prefer to have few but special friends?	Yes	No	48	Of all the people you know are there some whom you definitely do not like?	Yas	No
	21.	Do you daydream a lot?	Yes	No	49.	Would you say you were fairly self-confident?	Yes	No
٠	÷ 22.	When people shout at you, do you shout back?	Yos	No	50	Are you easily hurt when people find fault with you or your work?	Yes	Но
	23	Are you often troubled about feelings of guilt? .	Yes	No	51.	Do you find it hard to really enjoy yourse if at a live-	Yes	No
4	24.	Are all your habits good and desirable ones?	Yes	No	52	Are you troubled with feelings of inferiority?	Yes	No
	25.	Can you usually let yourself go and enjoy yourself a lot at a gay party?	Yes	No	53	Can you easily get some life into a rather dull party?	Yes	No
	26.	Would you call yourself tense or "highly-strung"?	Yes	No				
•	27	Do other people think of you as being very lively?	Yes	No	54	Do you sometimes talk about things you know nothing about?	Tes .	No
•	28.	After you have done something important, do you often come away feeling you could have done better?	Yes	No	55	Do you worry about your bealth?	Yes	No +
	29.	Are you mostly quiet when you are with other people?	Yes	No	56,	Do you like playing pranks on others?	Yes	No
	30.	نيه Do you sometimes gossip?	Yes	No	57.	Do you suffer from sleeplesaness?	Yes	No

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PLEASE CHECK TO SEE THAT YOU HAVE ANSWERED ALL THE QUESTIONS.

Appendix IIf

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Eysenck Personality Inventory Form B

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1.	Do you like pleaty of excitement and busile around you?	Yes	No	
2.	Have you often got a restless feeling that you want something but do not know what?	¥98	No	
3.	Do you nearly slways have a "ready answer" when people talk to you?	Yes	No	
4	Do you sometimes feel happy, sometimes and without any real reason?	Yet	No	
3.	Do you usually stay in the background at parties and "get-togethers"?	Yes	No	
6.	As a child did you always do as you were told imme- diately and without grumbling?	Y•4	No	
7.	Do you sometizzes suik?	Yes	No	
8.	When you are drawn into a quarrel do you prefer to "have it out" to being silent hoping things will blow over?	Yes	No	
9	Are you moody? .	Yes	No	
10.	Do you like mixing with people? a	Yes	No	
11.	Have you often lost sleep over your worries?	Yes	No	
12	Do you sometimes get cross?	Yes	No	•
13	Would you call yourself happy-go-lucky?	Yes	Nø	
14.	Do you often make up your mind too late?	¥e≉ (No	
15.	Do you like working alone?	Yes	No	
16.	Have you often felt listices and tired for no good reason?	Yes	No	
17	Are you rather lively?	Yes	No	
18.	Do you sometimes laugh at a dirty joke?	Yes	No	
19.	Do you often feel "fed-up"?	¥e≠	No	
20	Do you feel uncomfortable in anything but everyday clothes?	Yes	No	
21.	Does your mind often wander when you are trying to attend closely to something?	Yes	No	
22.	Can you put your thoughts into words quickly?	Yes	No	
23.	Are you often "logfin thought"?	Yes	No	
24.	Are you completely free from presudices of any kind?	Yes	No	
25.	Do you like practical jokes?	Yes	No	
26.	Do you often think of your past?	Yes	No	
27.	Do you very much like good food?	Yes	No	
28.	When you get annoyed do you need someone triendly to talk to about it?	Yes	No	
29.	Do you mind selling things or asking people for money for some good cause?	Yes	No	
30.	Do you sometimes boast a little?	Yes	No	

31.	Are you, touchy about some things?	Ýes	No
32.	Would you rather be at home on your own than go to a boring party?	Yes.	No
33.	Do you sometimes get so restless that you cannot sit loog in a chair?	- Yes	No -
24,1	Do you like planning things carefully, well about of time?	Yes	No
35.	Do you have dizzy spells?	Yes	No
36.	Do you always answer a personal letter as soon as you can after you have read it?	Yes	, No
37.	Can you usually do things better by figuring them out alone than by talking to others about it?	Yes	No
38.	Do you ever get short of breath without having done beavy work?	Yes	No
39.	Are you an essy-going person, not generally bothered about having everything "just-so"?	Yes	No
40.	Do you suffer from "perves"?	Yes	No
41.	Would you rather plan things than do things?	Yes	ho
42.	Do you sometimes put off until homorrow what you ought to do today?	Yes	No
43.	Do you get nervous in places like elevators, trains or tunnels?	Yes	No
44.	When you make new irlends, is it usually you who makes the first move, or does the inviting?	Yes	No
45	Do you get very had headachee?	Yes	No
48.	Do you generally feel that things will sort themselves out and come right in the end somehow?	Yes	No
47.	Do you find it hard to fall asleep at bedtime?	Yes	No
48.	Have you sometimes told lies in your life?	Yes	No
49.	Do you sometimes say the first thing that comes into your head?	Yes	No
50.	Do you worry too long after an embarrassing experience?	Yes	No
51.	Do you usually keep "yourself to yourself" except with very close friends?	Yes	No
52.	Do you often get into a jam because you do things with- out thinking?	Yes	No
53.	Do you like cracking jokes and telling funny stories to your friends?	Yes	No
54.	Would you rather win, than lose a game?	Yes	No
55.	Do you often feel self-conscious when you are with superiors?	Yos	No
56.	When the odds are against you, do you still usually think it worth taking a chance?	Yes	No
57.	Do you often get "butterflies in your stomach" before	Yes	No

PLEASE CHECK TO SEE THAT YOU HAVE ANSWERED ALL THE QUESTIONS

Appendix IIg

Paykel Life-Events Inventory

(Paykel, Uhlenluth, 1972)

LISTED BELOW ARE EVENTS THAT OCCUR IN PEOPLES' LIVES. PLEASE CIRCLE THE NUMBER OF EACH EVENT THAT HAS OCCURRED IN YOUR LIFE DURING THE LAST 6 MONTHS.

DEATH OF YOUR CHILD 1. DEATH OF YOUR SPOUSE OR COMMON LAW PARINER 2. 3. JAIL SENTENCE 4. DEATH OF A CLOSE FAMILY MEMBER (IN YOUR IMMEDIATE FAMILY) 5.3 YOUR PARTNER HAS AN EXTRAMARITAL AFFAIR 6. MAJOR FINANCIAL DIFFICULTIES (VERY HEAVY DEBTS, BANKRUPTCY) 7. BUSINESS FAILURE 8. FIRED 9 MISCARRIAGE OR STILLBIRTH 10. DIVORCE 11. MARITAL SEPARATION OR SEPARATION FROM RELATIONSHIP PARTNER 12. COURT APPEARANCE FOR SERIOUS LEGAL PROBLEM 13. UNWANTED PREGNANCY 14. MAJOR ILLNESS OF FAMILY MEMBER 15. UNEMPLOYED FOR AT LEAST ONE MONTH 16. DEATH OF A CLOSE FRIEND DEMOTION AT YOUR PLACE OF WORK 17. 18. MAJOR PERSONAL ILLNESS 19. YOU BEGIN AN EXTRAMARITAL AFFAIR 20. LOSS OF A PERSONALLY VALUABLE OBJECT 21. YOU BECOME 'INVOLVED IN A LAWSUIT 22-

ACADEMIC FAILURE (IMPORTANT EXAM OR COURSE OR DEGREE PROGRAM)

23. CHILD MARRIED (NOT APPROVED BY YOU)

24. BREAK ENGAGEMENT

25. INCREASED ARGUMENTS WITH SPOUSE OR RELATIONSHP PARTNER

26. INCREASED ARGUMENTS WITH FAMILY MEMBER

27. INCREASED ARGUMENTS WITH FIANCE

28. TAKE A LOAN

29. TROUBLES WITH BOSS OR CO-WORKER

30. ARGUMENT WITH NON-RESIDENT FAMILY MEMBER

31. MOVE TO ANOTHER COUNTRY

32. YOU EXPERIENCE MENOPAUSE

33. MODERATE FINANCIAL DIFFICULTIES

SEPARATION FROM A SIGNIFICANT PERSON (CLOSE FRIEND OR RELATIVE) 34.

35. TAKE IMPORTANT EXAMINATION

36. MARITAL OR RELATIONSHIP SEPARATION NOT DUE TO ARGUMENT .

37. CHANGE IN WORK HOURS

38. NEW PERSON IN HOUSEHOLD

39. RETIREMENT

40. CHANGE IN WORK CONDITIONS

41. CHANGE IN LINE OF WORK (OCCUPATIONAL CHANGE)

42. CEASE STEADY DATING

43. MOVE TO ANOTHER CITY

44. CHANGE OF SCHOOLS

45. CEASE EDUCATION

46.

CHILD LEAVES (MOVES AWAY FROM) HOME

47. MARITAL RECONCILIATION

48. MINOR LEGAL VIOLATION

49. BIRTH OF LIVE CHILD

50. WIFE OR RELATIONSHIP PARTNER BECOMES PREGNANT

51. MARRIAGE

52. PROMOTION

53. MINOR PERSONAL ILLNESS

54. MOVE WITHIN THE SAME CITY OR GENERAL AREA

55. BIRTH OF YOUR CHILD OR ADOPTION (FATHER)

56. BEGIN EDUCATION

57. CHILD BECOMES ENGAGED

58. YOU BECOME ENGAGED

WANTED PREGNANCY 59.

60. CHILD MARRIED (YOU APPROVE) Adjective Check-List; (Gough, Heilbrun, 1965)

absent-minded 1 active 2 adaptable 3 adventurous. 4 affected 5 affectionate 6 aggressive alert 8 aloof 9 ambitious 10 anxious 11 apathetic 12 appreciative 13 argumentative 14 arrogant 15 artistic 16 assertive 17 attractive 18 autocratic 19 awkward 20 bitter 21 blustery 22 boastful 23 bossy 24 calm 25 capable 28 careless 27 cautious 28 changeable 29 charming 30

	cheerful 31
	civilized
	clear-thinking
	clever
	coarse
	cold
	commonplace
	37 complaining
	38 complicated
	39 conceited
·]	40 confident
	41 confused
	42 conscientious
	43 conservative
	44 considerate
	45 contented
_	48
	conventional
	conventional 47 cool
	conventional 47 cool 48 cooperative
	conventional 47 cool 48 cooperative 49 courageous
	conventional 47 cool 48 cooperative 49 courageous 50 cowardly
	conventional 47 cool 48 cooperative 49 courageous 50 cowardly 51 cruel
	conventional 47 cool 48 cooperative 49 courageous 50 cowardly 51 cruel 52 curious
	conventional 47 cool 48 cooperative 49 courageous 50 cowardly 51 cruel 52 curious 53 cymcal
	conventional 47 cool 48 cooperative 49 courageous 50 cowardly 51 cruel 52 curious 53 cynical 54 daring
	conventional 47 cool 48 cooperative 49 courageous 50 cowardly 51 cruel 52 curious 53 cymcal 54 daring 55 deceitful
	conventional 47 cool 48 cooperative 49 courageous 50 cowardly 51 cruel 52 curious 53 cynical 54 daring 55 deceitful 56 defensive
	conventional 47 cool 48 cooperative 49 courageous 50 cowardly 51 cruel 52 curious 53 cymcal 54 daring 55 deceitful 56 defensive 57 deliberate
	conventional 47 cool 48 cooperative 49 courageous 50 cowardly 51 cruel 52 curious 53 cymcal 54 daring 55 deceitful 56 defensive 57 deliberate 58 demanding
	conventional 47 cool 48 cooperative 49 courageous 50 cowardly 51 cruel 52 curious 53 cymcal 54 daring 55 deceitful 58 defensive 57 deliberate 58 demanding 59 denendable

	dependent			foresighted
	despondent			forgetful
	determined			forgiving
	dignified			formal ·
	discreet		Ò	frank
	65 disorderly			95 friendly
	66 dissatisfied			96 frivolous
	67 distractible			97 fussy
	68 distrustful			98 generous
	69 dominant			99 gentle
	70 dreamy			ĭ100 ·. gloomv
	71 dull			101 good-looking
	72			102
	73	•		• 103
	effeminate 74			greedy 104
	efficient 5 75			handsome 105
	egotistical 76			hard-headed
	emotional 77	•		hard-hearted
	energetic 78	p		hasty '108
Q	enterprising			headstrong
	enthusiastic			healthy
	evasive			helpful
	excitable			high-strung
	fair-minded			honest
	fault-finding			hostile
	fearful			humorous
	85 feminine			hurried
Π	86 fickle			idealistic
	87 flirtatious			117 imagınative
	88 foolish			118 immature
	89 forceful			119 impatient
Ш	90			120

	Π	impulsive
		independent
		122 indifferent
		123 individualistic
		124
		125
		126
		127
,		ingenious 128
		inhibited 129
		initiative 130
		insightful
		intelligent
,		interests narro
		interests wide
		134 intolerant
		135 inventive
		138 irresponsible
		137 irritable
		138
		139
		kind 140
		lazy 141
`		leisurely 142
		logical 143
		loud
		loyal
		mannerly
		masculine
		147 ' mature
		148 meek
		149 methodical
	, '	150

Appendix IIh

Appendix IIh (cont'd)

mild 151 mischievous 152 moderate 153 modest 154 moody 155 nagging 156 natural 157 nervous 158 noisy 159 obliging 160 obnoxious 161 opinionated 162 opportunistic 163 optimistic 164 organized 165 original 166 outgoing ' 187 outspoken 168 painstaking 169 patient 170 peaceable 171 peculiar 172 persevering 173 persistent 174 pessimistic 175 planful 176 pleasant 177 pleasure-seeking 178 poised 179 polished 180

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	practical
	praising
	precise
Ъ	prejudiced
	184 preoccupied
	185 progressive
	186 prudish
	187 quarrelsome
Π	-188 queer
	- 189 guick
	190 quiet
	191
	192
	193
	rattlebrained 194
	realistic 195
	reasonable 196
	rebellious
	reckless
	reflective
	relaxed
Ď	reliable
	201 resentful
	202 reserved
	203 resourceful
	, 204 responsible
	205 restless
	206
	207
	208
	209
	rude

Σ	sarcastic
	self-centered
],	self-confident
7	213 self-controlled
	214 self-denving
	215
	216
	seir-punisning 217
	self-seeking 218
	selfish 219
	sensitive
	sentimental
	serious
	severe
ŕ	223 sexy
7	224 shallow
	225
	226
	shiftless 227
	show-off 228
	shrewd 229
	shy 230
	silent'
	simple
	sincere
٦	233 slipshod
	234 slow ~
	235 ° sly
	236 STD119
	237 snobbish
_	238
	sociable 239
	soft-hearted

sophisticated 241 spendthrift 242 spineless 243 spontaneous 244 spunky 245 stable 246 steady 247 stern **248** stingy 249 stolid 250 strong 251 stubborn 252 submissive 253 suggestible 254 sulky 255 superstitious 258 suspicious. 257 sympathetic 258 tactful 259 tactless 260 talkative 261 temperamental 282 tense 263 thankless 264 thorough 265 thoughtful 266 thrifty 267 timid 268 tolerant 269 touchy 270

	tough
	trusting
	unaffected
	unambitious
	unassuming
	unconventiona 276
	undependable
	understanding 278
	unemotional 279
	unexcitable
	unfriendly 281
	uninhibited
	unintelligent 283
	unkind 284
	unealistic 285
	unscrupulous 286
	unselfish 287
Ū	unstable 288
	vindictive 289
	versatile 290
	warm 291
	wary 292
	weak 293
	whiny ' c -294
	wholesome 295
	wise 296
	withdrawn 297
	witty 298
	worrying 299
	zany 300 A

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Appendix IIi

Beck Depression Inventory

(Beck, et.al., 1969)

EACH ITEM IN THIS QUESTIONNAIRE IS MADE UP OF 4-6 STATEMENTS. BEFORE RESPONDING PLEASE READ ALL THE STATEMENTS IN EACH GROUP. THEN, PLEASE CHOOSE THE ONE STATEMENT OF THE GROUP THAT BEST DESCRIBES THE WAY YOU FEEL TODAY (AT PRESENT).

- I DO NOT FEEL SAD. 1. i.
 - 11. I FEEL BLUE OR SAD.
 - 111. I AM BLUE OR SAD ALL OF THE TIME AND CAN'T SNAP OUT OF IT.
 - iv. I AM SO SAD OR UNHAPPY THAT IT IS OUITE PAINFUL.
 - I AM SO SAD OR UNHAPPY THAT I CAN'T STAND IT. ν.
- I AM NOT PARTICULARLY PESSIMISTIC OR DISCOURAGED ABOUT THE FUTURE. 2. 1. 1. I AM NOT PARTICULARLY PESSIMISTIC OR 11. I FEEL DISCOURAGED ABOUT THE FUTURE.
 - iii. I FEEL I HAVE NOTHING TO LOOK FORWARD TO.
 - iv. I FEEL THAT I WON'T EVER GET OVER MY TROUBLES.
 - I FEEL THAT THE FUTURE IS HOPELESS AND THAT THINGS CANNOT IMPROVE. ν.
- 3. i. I DO NOT FEEL LIKE A FAILURE.
 - ii. I FEEL I HAVE FAILED MORE THAN THE AVERAGE PERSON.
 - iii. I FEEL I HAVE ACCOMPLISHED VERY LITTLE THAT IS WORTHWHILE OR MEANINGFUL.
 - iv. AS I LOOK BACK ON MY LIFE ALL I CAN SEE ARE A LOT OF FAILURES.
 - I FEEL I AM A COMPLETE FAILURE AS A PERSON (PARENT, INDIVIDUAL, HUSBAND, WIFE) ν.
- 4.'i. I AM NOT PARTICULARLY DISSATISFIED
 - ii. I FEEL BORED MOST OF THE TIME.
 - iii. I DON'T ENJOY THINGS THE WAY I USED TO.
 - 1V. I DON'T GET SATISFACTION OUT OF ANYTHING ANYMORE.
 - I AM DISSATISFIED WITH EVERYTHING. ٧.
- 5. 1. I DON'T FEEL PARTICULARLY GUILTY.
 - ii. I FEEL BAD OR UNWORTHY A GOOD PART OF THE TIME.
 - iii. I FEEL QUITE GUILTY.
 - iv. I FEEL BAD OR UNWORTHY PRACTICALLY ALL THE TIME NOW.
 - v. I FEEL AS THOUGH I AM VERY BAD OR WORTHLESS.
- 6. i. I DON'T FEEL THAT I AM BEING PUNISHED.
 - 11. I HAVE A FEELING THAT SOMETHING VERY BAD MAY HAPPEN TO ME.
 - iii. I FEEL THAT I AM BEING PUNISHED OR WILL BE PUNISHED.
 - v. I FEEL I DESERVE TO BE PUNISHED.
- 7. i. I DON'T FEEL DISAPPOINTED IN MYSELF.
 - ii. I AM DISAPPOINTED IN MYSELF.
 - iii. I DON'T LIKE MYSELF.
 - iv. I AM DISGUSTED WITH MYSELF.
 - v. I HATE MYSELF.
- 8. i. I DON'T FEEL I AM ANY WORSE THAN ANYONE ELSE.
 - 11. I AM VERY CRITICAL OF MYSELF FOR MY WEAKNESSES OR MISTAKES.
 - 111. I BLAME MYSELF FOR EVERYTHING THAT GOES WRONG.
 - iv. I FEEL I HAVE MANY BAD FAULTS.
- 9. 1, 'I DON'T HAVE ANY THOUGHTS OF HARMING MYSELF.
 - 11. I HAVE THOUGHTS OF HARMING MYSELF ON OCCASION BUT WOULD NOT CARRY THEM CUT.
 - iii. I FEEL I WOULD BE BETTER OFF DEAD.
 - iv. I HAVE DEFINITE PLANS ABOUT COMMITTING SUICIDE
 - v. I FEEL MY FAMILY WOULD BE BETTER OFF IF I WERE DEAD. vi. I WOULD KILL MYSELF IF I COULD.
- 10.1. I DO NOT CRY ANY MORE THAN USUAL.
 - 11. I CRY MORE NOW THAN 'I USED TO.
 - iii. I FEEL IRRITATED ALL THE TIME.
 - I USED TO BE ABLE TO CRY BUT NOW CANNOT CRY AT ALL EVEN THOUGH I WANT TO.

11.1. I AM NO MORE IRRITATED NOW THAN I EVER AM. ii. I GET ANNOYED OR IRRITATED MORE NOW THAN I USED TO. iii. I FEEL IRRITATED ALL THE TIME. iv. I DON'T GET IRRITATED AT ALL AT THE THINGS THAT USED TO IRRITATE ME. 12.i. I HAVE NOT LOST INTEREST IN OTHER PEOPLE. ii. I AM LESS INTERESTED IN OTHER PEOPLE NOW THAN I USED TO BE. 111. I HAVE LOST MOST OF MY INTEREST IN OTHER PEOPLE AND HAVE LITTLE FEELING FOR THEM. iv. I HAVE LOST ALL MY INTEREST IN OTHER PEOPLE AND DON'T CARE ABOUT THEM AT ALL. I MAKE DECISIONS ABOUT AS WELL AS EVER. 13.1. ii. I TRY TO PUT OFF MAKING DECISIONS 111, I HAVE GREAT DIFFICULTY IN MAKING DECISIONS. V. I CAN'T MAKE DECISIONS AT ALL'ANY MORE. I DON'T FEEL I LOOK ANY WORSE THAN I USED TO. 14, 1. ii. I AM WORRIED THAT I AM LOOKING OLD OR UNATTRACTIVE. iii. I FEEL THERE ARE PERMANENT CHANGES IN MY APPEARANCE, THAT MAKE ME LOOK UNATTRACTIVE. iv. I FEEL I AM UGLY OR REPULSIVE LOOKING. 15.i. I CAN WORK ABOUT AS WELL AS BEFORE. ii. IT TAKES EXTRA EFFORT TO GET, STARTED AT DOING SOMETHING. iii. I DON'T WORK AS WELL AS I USED TO. iv. I HAVE TO PUSH MYSELF VERY HARD TO DO ANYTHING. I CAN'T DO ANYTHING AT ALL. v. I CAN SLEEP AS WELL AS USUAL. 16.1. ii. I WAKE UP MORE TIRED IN THE MORNING THAN USUAL, 111. I WAKE UP 1-2 HOURS EARLIER THAN USUAL AND FIND IT HARMATO GET BACK TO SLEEP. 1V. I WAKE UP EARLY EVERY MORNING AND CANNOT GET MORE THAN 45 HOURS OF SLEEP. IT TAKES ME 1-2 HOURS LONGER THAN USUAL TO GET TO SLEEP AT NIGHT. v. VI. IT TAKES A LONG TIME TO FALL ASLEEP AT NIGHT AND I CANNOT GET MORE THAN 5 HOURS SLEEP. I DON'T GET ANY MORE TIRED THAN USUAL. 17.i. 11. I GET TIRED MORE EASILY THAN I USED TO. iii. I GET TIRED FROM DOING ANYTHING. iv. I GET TOO TIRED TO DO ANYTHING. i. MY APPETITE IS NOT WORSE (LESS) THAN USUAL."" ii. MY APPETITE IS NOT AS GOOD AS IT USED TO BE. 18.i. 111. MY APPETITE IS MUCH WORSE NON. iv. I HAVE NO APPETITE AT ALL ANY MORE. I HAVE NOT LOST MUCH WEIGHT, IF ANY, LATELY. 19.i. 11. I HAVE RECENTLY LOST 5-10 POUNDS. iii. I HAVE RECENTLY LOST 10-15, POUNDS. iv. I HAVE RECENTLY LOST MORE THAN 15 POUNDS. I AM NO MORE CONCERNED ABOUT MY HEALTH THAN USUAL. 20.i. . I AM CONCERNED ABOUT ACHES AND PAINS; OR UPSET STOMACH, OR CONSTIPATION. iii. I AM SO CONCERNED WITH HOW OR WHAT I FEEL THAT IT IS HARD TO THINK OF MUCH ELSE. iv. I AM COMPLETELY ABSORBED WITH WHAT I AM FEELING INSIDE (PHYSICALLY). I HAVE NOT NOTICED ANY RECENT CHANGE IN MY INTEREST' IN SEX. 21.i. ii. I AM LESS INTERESTED IN SEX THAN I USED TO BE. iii. I AM MUCH LESS INTERESTED IN SEX NOW THAN I USED TO BE. 1V. I HAVE LOST INTEREST IN SEX COMPLETELY. THANK YOU.

Appendix IIj

Symptom Check-List 90-R

(Derogatis, 1976)

BELOW IS A LIST OF PROBLEMS AND COMPLAINTS THAT PEOPLE SOMETIMES HAVE. READ EACH ONE CAREFULLY AND SELECT ONE OF THE NUMBERED RESPONSES THAT BEST DESCRIBES, 'HOW MUCH HAVE I BEEN BOTHERED BY THIS IN THE PAST MONTH, INCLUDING TODAY?' CIRCLE THE APPROPRIATE NUMBER AT THE RIGHT OF THE ITEM. PLEASE DO NOT SKIP ANY ITEM.

` -			,	RES	PONS	SE CHO	DICE	5:				
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• •				2	MODE	TIDE	DI.					•
<i>,</i>				3	OUT	PEAI	BTT	+ - ·				
	~ ~ ~	' n		4	EXT	REMEL	Y			· 4		,
HO	MUCH HAVE YOU BEEN BOTHERED	BY:		-			HO	MUCH HAVE YOU BEEN BOTHERED	BY	:		`.
1.	HEADACHES	0	1	2	3	4	25.	FEELING AFRAID TO GO OUT 0 OF YOUR HOUSE ALONE	1	2	3	4
2.	NERVOUSNESS OR SHAKINESS	0	1	ʻ2	3	4 "	′ 26 .	BLAMING YOURSELF FOR 0	ľ	2	3	4
<u>з.</u>	REPEATED UNPLEASANT THOUGHTS	0.,	1	2	3	4	27.	PAINS IN LOWER BACK 0	1	2	3	4
4.	FAININESS OR NAUSEA	o	1.	-2	3	4	28.	FEELING BLOCKED IN 0	1	2	.3	4
5,	LOSS OF SEXUAL INTEREST OR	0	1	2	3	-4	29.	FEELING LONELY 0	1	2	3	4
б.	FEELING CRITICAL OF OTHERS	0	1	2	3`	4.	30.	FEELING BLUE 0	ı	2	3	4
;7.	THE IDEA THAT SOMEONE CAN	0	1	2	3	4	31.	WORRYING TOO MUCH	1	2	3	4
8.	FEELING OTHERS ARE TO BLAME	0	1	2	3	4	32.	FEELING NO INTEREST IN 0	1	2	۶,	4
9.	TROUBLE REMEMBERING THINGS	0	1	2	3	4	33.	FEELING FEARFUL 0	ัเ	2	3-	4
10.,	BEING WORRIED ABOUT SLOPPI-	0	í	2	3,	4	34.	YOUR FEELINGS BEING 0	1	2	3	4
11.	FEELING EASILY ANNOYED OR	0	1	2	3	4	35.	OTHER PEOPLE BEING AWARE 0	J ,	2	3	4
12.	PAINS IN HEART OR CHEST	·0`	1	2	3	4	36.	FEELING OTHERS DO NOT 0	1	2	3	4
13.	FEELING AFRAID IN OPEN SPA-	o,	1,	-2	~3	4	37.	FEELING OTHERS ARE UN- 0	1	2	3	4
14.	FEELING LOW IN ENERGY OR	٥	1	2	3.	4	38.	DOING THINGS VERY SLOWLY O	1	2	3	4
15.	THOUGHTS OF ENDING YOUR LIFE	0	1.	2	3	4. ·	39.	YOUR HEART IS POUNDING 0	1	2	3	4
16.	HEARING VOICES THAT OTHER	٥ .	1	2	3	4 ·	40.	NAUSEA OR UPSET STOMACH 0	1	2/	3	4
17.	TREMBLING	ຶ່ງ	1	2	3	4	41.	FEELING INFERIOR TO 0.			3	4
18.	FEELING THAT MOST PEOPLE CANNOT BE TRUSTED	0	1'	2	` 3	4' '	42.	SORENESS IN YOUR MUSCLES 0	1	2	3	4
19.	POOR APPETITE	Q,	1.	2.	3. ,	4.	43.	FEELING YOU'RE BEING · 0 WATCHED/TALKED ABOUT	1	2	3	4 -
20.	CRYING FASILY	ٛ٥	1	, 2	3	4	44,	TROUBLE FALLING ASLEEP 0	1	2	з	4
21.	FEELING SHY OR UNEASY WITH THE OPPOSITE SEX	0	1	2	3	4	45.	HAVING TO CHECK AND 0 DOUBLE-CHECK WHAT YOU DO	1	2	3	4
22.	FEELINGS OF BEING TRAPPED OR CAUGHT	0 .	1	2,	3	4 [.]	46.,	DIFFICULTY MAKING, 0	·1	2	3	4
23.	SUDDENLY AFRAID OR SCARED FOR NO REASON	•.	1	2	·3	4	47.	FEELING AFRAID TO USE 0 BUSES, SUBWAYS OR TRAINS	1	2	3 ₁ ,	4
24.	TEMPER OUTBURSTS THAT YOU	þ	l	2`	'3	4	48.	TROUBLE GETTING YOUR	1	2	3	4

				ž			D.707	•
				2	A.	DEDATE	BIT	
				3	00	ITE A 1	BIT	
				4	EX	TREMEL	Y	•
HOI	W MUCH HAVE YOU BEEN BOTHERE	DB	¥:				HO	W MUCH HAVE YOU BEEN BOTHERED BY:
49.	HOT OR COLD SPELLS	0	1	2 [,]	3	4	74.	GETTING INTO FREQUENT - 0 1 2 3 4 ARGUMENTS
50.	AVOIDING THINGS, PLACES OR 'ACTIVITIES THAT SCARE YOU	0	1	2	3	4	75.	FEELING NERVOUS WHEN YOU 0 1 2 3 4 ARE LEFT ALONE
51.	YOUR MIND GOING BLANK	.0	1	2	3	4	76.	OTHERS DON'T GIVE YOU 0 1 2 3 4 PROPER CREDIT FOR YOUR ACHIEVEMENTS
52.	NUMBNESS OR TINGLING IN PARTS OF YOUR BODY	0	1	2	3	4	77.	FEELING LONELY EVEN WHEN 0 1 2 3 4 YOU ARE WITH PEOPLE
53.	A LUMP IN YOUR THROAT	0	1	2	3	4	78.	FEELING SO RESTLESS YOU 0 1 2 3 4 CANNOT SIT STILL
54.	FEELING HOPELESS ABOUT	0	1	2	3	4	79.	FEELINGS OF WORTHLESSNESS 0 1 2 3 4
55.	TROUBLE CONCENTRATING	0	1	2	3	4	80.	FEELING THAT SOMETHING 0 1 2 3 4 BAD IS GOING TO HAPPEN TO YOU
<mark>56.</mark>	FEELING WEAK IN PARTS OF YOUR BODY	0	1	2	3	4	81.	SHOUTING OR THROWING 0 1 2 3 4 THINGS
57.	FEELING TENSE OR KEYED UP	,	1	2	3	4	82.	FEELING AFRAID YOU WILL 0 1 2 3 4 FAINT IN PUBLIC
58.	HEAVY FEELINGS IN YOUR ARMS OR LEGS	0	1	2	3	4	83.	FEELING PEOPLE WILL TAKE 0 1 2 3 4 ADVANTAGE OF YOU IF YOU LET THEM
59.	THOUGHTS OF DEATH OR DYING	0	1	2	3	4	84.	HAVING THOUGHTS ABOUT SEX 0 1 2 3 40 THAT BOTHER YOU ALOT
60.	OVEREATING	0	1	2	3	4	85.	THE IDEA THAT YOU SHOULD 0 1 2 3 4 BE PUNISHED FOR YOUR SINS
6 1 .	FEELING UNEASY WHEN PEOPLE WATCH OR TALK ABOUT YOU	0	1	2	3	4	86.	THOUGHTS AND IMAGES OF A 0 1 2 3 4 FRIGHTENING NATURE
62.	HAVING THOUGHTS THAT ARE NOT YOUR OWN	0	1	2	3	4	87.	THE IDEA THAT SOMETHING 0 1 2 3 4 SERIOUS IS WRONG WITH YOUR BODY
63.	HAVING URGES TO INJURE OR HARM SOMEONE	0	1	2	3	4	88.	NEVER FEELING CLOSE TO 0 1 2 3 4. ANOTHER PERSON
64.	AWAKENING IN THE EARLY MORNING	0	1	2	3	4	89.	FEELINGS OF GUILT '0 1 2 3 '4
65.	REPEATING THE SAME ACTIONS; TOUCHING, COUNTING, WASHING	0	1	2	3	4	90.	THE IDEA THAT SOMETHING 0 1 2 3 4 IS WRONG WITH YOUR MIND
66.'	SLEEP THAT IS RESTLESS AND DISTURBED	0	1	2	3	4	THAI	NK YOU.
67.	HAVING URGES TO BREAK OR SMASH THINGS	0	1	2	3	4		,
68.	HAVING IDEAS OR BELIEFS THAT OTHERS DO NOT SHARE	0	1	2	3	4		/
69.	FEELING VERY SELF-CONSCIOUS WITH/AROUND OTHERS	0	1	2	3	4		
70.	FEELING UNEASY IN CROWDS, AS WHEN SHOPPING, AT MOVIES	0	1	2	3	4		•
71.	FEELING EVERYTHING IS AN EFFORT	0	1	2	3	4		a a a a a a a a a a a a a a a a a a a
. 72	OCCASIONS OF PANIC OR TERROR	0	1	2	3	4		· · · · · · · · · · · · · · · · · · ·
73.	FEELING UNCOMFORTABLE. ABOUT EATING OR DRINKING IN PUBLIC	0	1,	2	3	4	٠	

RESPONSE CHOICES:

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Appendix IIIa Archetypality Rating Scales (Kluger, 1975, modified by Cann, 1979)

Affect.

It is the affect of the dreamer (the dream ego) which is scored, not that of any other dream character. If the presence or absence of affect is not explicitly stated, or implied, estimate the degree of affect which would usually be associated with the situation and context surrounding the dreamer. Score the highest degree of affect which occurs within the general context of the dream.

- 6. Extreme : panic, horrified, terrified, ecstatic, enraged, furious, paranoia, suicidal depression.
- 5. Very Strong : great fear or anger, hatred, incensed, dread, mortified, crushed, grief-stricken, revulsion, awe-stricken, exhilarated, elated, heart-broken, astonished, amazed, desperate.
- 4. Strong or stressed : afraid, scared, happy, delighted, excited, mad, angry, sorrowful, alarmed, ashamed, foreboding, very embarrassed, contempt, depressed, hopeless, mourning, very disgusted, repulsed, bewildered, mystified, joyful, distressed, miserable.
- 3. Moderate : glad, annoyed, very interested or satisfied, irritated, apprehensive, nervous, uptight, indignant, provoked, disappointed, upset, sad, lonely, frustrated, surprised, weird, confused, cheerful, gay, hurt, dislike, compassionate.
- 2. Mild : pleasant, unpleasant, uneasy, worried, concerned, sorry, defensive, apologetic, regretful, bored, discontented, puzzled, uncertain, doubtful, contented, amused, sympathetic.

1. Slight or Absent : relaxed, unconcerned, neutral.

N.B. The addition of intensifiers (e.g. very, greatly, extremely, etc.) will increase the degree of affect scored.

Appendix IIIb Archetypality Rating Scales (cont'd)

Rationality

The considerations in scoring dream content under this category are the degree of likelihood of their occurrence, and the degree of their adherence to natural law.

- 6. (4.) Rational, and not unlikely Examples: riding a bike, hitting a stone and falling off.
- 5. (3.) Rational possible (i.e., possible, conceivable, but uncommon or unexpected). Examples: being chased, caught, and raped; San Francisco being bombed by the Russians.
- 4. (2.) Rational unlikely (i.e., very unlikely, although not violating any natural law). Examples: being chased from tree to tree by a white bear; some chased, caught, and tried to poison me.
- 3. (1x.) Borderline (i.e., the operation of natural law is uncertain or questionable). Example: a long row of black box-cars rolling by on a railroad track. There was no engine.
- 2. (1.) Non-rational but comprehensible Examples: playing in the barnyard and suddenly covered with green snakes; our guns wiped out everything in front of them.
- 1. (0.) Irrational (i.e., impossible in reality). Examples: a toothed Fish chased me out of the pool and across the fields; about a man with a lion's head.
- 0. (B.) Bizarre Example: the veins on my chest stood out, studded with rhinestones and sequins.

Appendix IIIc Archetypality Rating Scales (cont'd)

Everydayness

The consideration in scoring dream content under this category is in the degree to which it approximates that of everyday life.

- 6. (4.) For dreams just like everyday life. Examples: making plans with a friend for a car trip to a neighboring town; having to go to the bathroom; working or talking with some people.
- 5. (3.) Slight variations from everyday life. Examples: running in a relay race with two best friends, somehow got in wrong exchange area and have to give up the race; or (a student), "I had already graduated and gotten a good position in my field."
- 4. (2.) Unlikely variations from everyday life. "Examples: returning to apartment to find all the furniture gone and workmen removing the bathroom pipes; all the girls in the dorm getting together for the last time before vacation, and all sad and crying at the prospect of the long separation.
- 3. (1x.) With an impossible twist to everyday life. Examples: cleaning out a fishbowl, the fish swim up the stream of water pouring into it; a horse performing tricks suddenly turns into an elephant.
- 2. (1.) Very unlikely in everyday life. Examples: walking along a dirt road, an airliner flies so low over us we could almost touch it. It circles back, lands on the road hitting a group of people as though intentionally.
- 1. (0.) Very remote from everyday life, with the feeling tone of the strange and unfamiliar. Examples: three priests with icepicks sitting at a round table, each begins lightly pricking the left arm of his neighbor, increasing this to jabbing and furiously stabbing till it's a horrible bloody scene; "I walk through a maze of high hedges. I am trying to reach the center. There is a mist in the air, and grass is beneath my feet. I have very long hair and clothes that belong to another century. I sing the old folksong, 'Where I come from nobody knows.' I feel I must get out or get to the center."
- 0. (B.) Bizarre. Example: The veins on my chest stood out, studded with rhinestones and sequins.

Appendix IIId

Friendly Interactions (Hall-Van de Castle, 1966)

- Friendliness expressed through a desire for a long-term close relation-F7 ship with a character (getting engaged, being married, falling in love)
- Friendliness expressed through socially acceptable forms of physical **F6** contact (shaking hands, cuddling a baby, dancing, kissing and embracing if not sexual in intent)
- Friendliness expressed by taking the initiative in requesting a character **F5** to share in a pleasant social activity (dating and visiting are scored, but simple joint activity is not)
- F4 Friendliness expressed through extending assistance to a character or offering to do so (helping, protecting, rescuing)
- Friendliness expressed by offering a gift or loaning a possession to a F3 character
- F2 Verbal or gestural expressions of friendliness (welcoming, greeting, waving hello or goodbye, introducing people, smiling at someone, telephoning or writing someone for a friendly purpose, sympathizing with or praising someone).

F1 Friendliness felt toward a character but not expressed overtly

Friendly interaction may be scored to show the initiator of the act, the subclass, and the recipient. Reciprocated, mutual, witnessed, and self-directed friendliness may also be scored.

Aggressive Interactions (Hall-Van de Castle, 1966)

- An aggressive act which results in the death of a character. 88
- An aggressive act, which involves an attempt to physically harm a ٨7 character, threatening a character with a weapon is also included in this subclass
- An aggressive act which involves a character being chased, captured, A6 confined, or physically coerced into performing some act.
- An aggressive act which involves the theft or destruction of possesλ5 sions belonging to a character.
- An aggressive act in which a serious accusation or verbal threat of harm is made against a character.
- A3 An attempt made by one character to reject, exploit, control, or verbally coerce another character.
- Aggression displayed through verbal or expressive activity Λ2
- Covert feelings of hostility or anger without any overt expression of **A**1 aggression.

Aggressive interactions are scored to show the initiator of the act, the subclass, and the victim. Reciprocated, mutual, witnessed, and self-directed aggressions are also scored in this system.

Sexual Interactions

(Sexual-Friendly and Sexual-Aggressive) (Hall-Van de Castle, 1966)

- A character has or attempts to have sexual intercourse with another.
- This subclass covers various types of foreplay activities generally pre-S4 ceding intercourse, including handling another character's sex organs and related fondling and petting activities.
- This subclass covers necking and "nonplatonic" kissing. A character makes sexual overtures to or "propositions" another charac-S2 ter.

S1 A character has sexual thoughts or fantasies about another character Sexual interaction may be scored so as to show the initiator, the recipient, reciprocated sexuality, mutual sexuality, or witnessed sexuality, as well as self-directed sexuality

Appendix IIIe

Emotions

(Hall-Van de Castle 1966)

- AN Anger: annoyed, irritated, mad, provoked, furious, enraged, belligerent, incensed, indignant
- AP Apprehension: fear, anxiety, guilt, embarrassment, terrified, horrified, frightened, scared, worried, alarmed, uneasy, remorseful, sony, apologetic, a regretful, asharmed
- HA Happiness: includes all words that describe a general state of pleasant feeling tone, including contented, pleased, relieved, amused, cheerful, glad, relaxed, gratified, gay, wonderful, elated, joyful, exhilarated
- SD Sadness: includes all words that describe an unhappy emotional state, including disappointed, distressed, hurt, depressed, lonely, lost, miserable, hopeless, crushed, heartbroken
- CO Confusion: includes surprised, astonished, amazed, awestruck, mystified, puzzled, perplexed, strange, bewildered, doubtful, conflicted, undecided, uncertain

Activities

(Hall-Van de Castle, 1966)

- P Physical activities. Any voluntary movement of the whole body or part of the body while the character remains more or less in one place is scored as a physical activity. (Examples: dressing, combing hair, brushing teeth, sitting down, getting up, bending, writing, picking up an object, chopping wood.)
- M Movement. This score is given when a character changes his physical location by self-propelled movements of his body Involuntary movements such as falling, slipping, or being thrown through space are not scored as movement. (Examples walking, running, crawling, sliding, swimming, timbing.)
- L Location change. Whenever a character moves in a spatial dimension and arrives at a different location through any means other than self-propelled muscular activity, a location change score is given. Included are verbs which suggest change of location but are vague as to how the change occurred (Examples went, came, arrived, departed, journeyed, traveled.)
- V Verbal. Any type of vocalization including singing.
- E' Expressive communication Included in this class are those nonverbal activities associated with emotional states which are sometimes not under voluntary control (Examples laughing, crying, smiling, scowling, baring one's teeth, drooling, gasping.)
- S Visual Includes all types of seeing achivities (Examples see, notice, read, watch, peek, glance, view, inspect, distinguish)
- A Auditory Includes any type of hearing or listening behavior.
- C Thinking In order to be scored as a thinking activity, the description should indicate that deliberate continued mental activity was involved which possessed a goal-directed or problem-solving quality.

Characters (Hall-Van de Castle, 1966)

	Number	Sex		Ident	ity		Age
1 2 3	Individual Group Individual	M Male F Female J Joint	F Fat M M X Par P Pr	her T ther H ents W	Sister Husband Wife	A T C	Adult Teenager Child Baby
4 5	Group dead Individual imaginary	D D C I	Daughte Child Infant	allei A	P Prominent O Occupatio E Ethnic	ы nal	Baby .
6 7 8	Group imaginary Original form Changed form	Y R K	Family n Relative Known	nember	S Stranger U Uncertain	7 2	•
-		۰ ۳	Miscellar ANI Anii CZZ Cre	neous mal sature	۵ ۲	•	
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Appendix IIIf

Anxiety

(Gottschalk-Gleser, 1969)

1. Death anxiety-references to death, dying, threat of death, or anxiety about death experienced by or occurning to

a. Self(3),

b. Animate others (2),

c. Inanimate objects destroyed (1),

2. Mutilation anxiety-references to injury, tissue or physical damage, or anxiety about injury or threat of such experienced by or occurring to a. Self(3),

b. Animate others (2)

c. Inanimate objects (1),

3. Separation anxiety-references to desertion, abandonment, loneliness, ostracism; loss of support, falling, loss of love or love object, or threat of such experienced by or occurring to

a. Self(3),

b. Animate others (2)

c. Inanimate objects (1),

4. Guilt anxiety-references to adverse criticism, abuse, condemnation, moral disapproval, guilt, or threat of such experienced by

a. Self(3),

b. Animate others (2),

Shame anxiety-references to ridicule, inadequacy, shame, embarrassment, humiliation, overexposure of deficiencies or private details, or threat of such experienced by

a. Self (3),

5.

b. Animate others (2),

6. Diffuse or nonspecific anxiety-references by word or in phrases to anxiety and/or fear without distinguishing type or source of anxiety experienced by or occurring to

a. Self(3),

b Animate others(2),

Achievement Outcome (Hall-Van de Castle, 1966)

Success: The character is described as expending some energy and perseverance in pursuit of his goals, works at a solution, and eventually manages to succeed.

Failure: The character exhibits willingness to deal with an existing problem, and continuing efforts to master it but is not able to achieve his desired goal because of personal limitations and inadequacies.

Environmental Press

Misfortune

- rtune (Hall-Van de Castle, 1966) A character is dead or dies as a result of accident or illness or some M6 unknown cause.
- M5 A character is injured or ill (including pain, operations, bodily or mental defects, insanity, amnesia, or blindness).
- M4 A character is involved in an accident without suffering physical or mental injury, a character loses a possession or has one destroyed or damaged, a character has a defective possession.
- M3 A character is threatened by something in the environment, not including a threat of falling
- M2A character is falling or is in danger of falling
- MI A character encounters an environmental barrier or obstacle, a character is unable to move, a character is lost, late, or is in danger of being late.

Good fortune

A character has "something good" happen to him, including finding GF himself in a bountiful environment, finding money, or winning a door prize.
Appendix IIIg

Hostility Directed Outward-Overt (Gottschalk-Gleser, 1969)

- 10 Self killing, fighting, or injuring other individuals, or threatening to do so.
- Self robbing or abandoning other individuals, causing suffering or 9 anguish to others, or threatening to do so
- 8 Self adversely criticizing, depreciating, blaming, or expressing anger or dislike of other human beings
- 7 Self killing, injuring, or destroying domestic animals or pets, or threatening to do so.
- 6 Self abandoning or robbing domestic animals or pets, or threatening to do so
- Self criticizing or depreciating others in a vague or mild manner 5
- Self depriving or disappointing other human beings 4
- 3 Self killing, injuring, destroying, or robbing wildlife, flora, or manimate objects, or threatening to do so
- 2 Self adversely criticizing, depreciating, blaming, or expressing anger or dislike of subhumans, manimate objects, places, or situations.
- Self using hostile words, cursing, or mentioning anger or rage with-1 out referent.

Hostility Directed Inward (Gottschalk-Gleser, 1969)

- References to self (speaker) attempting or threatening to kill self, with or without conscious intent.
- References to self wanting to die, or needing or deserving to die. 10
- References to self injuring, mutilating, or disfiguring self or 9 threatening to do so, with or without conscious intent. 8 Self blaming or expressing anger or hatred to self, considering self
- worthless or of no value, causing self grief or trouble, or threatening to do so.
- 7 References to feelings of discouragement, giving up hope, despairing, feeling grieved or depressed, or having no purpose in life.
- 6 References to self needing or deserving punishment, paying for one's sins, or needing to atone or do penance.
 - Self adversely entrezing or depreciating self, referring to regretting, being sorry or ashamed for what one says or does, or referring to self as mistaken or in error.
- 4 References to feelings of deprivation, disappointment, or lonesomeness
- 3 References to feeling disappointed in self or unable to meet expectations of self or others
- 2 Denial of anger, dislike, hatred, blame, or destructive impulses from self to self. 1
 - 'References to feeling painfully driven or obliged to meet one's own expectations and standards.

Ambivalently Directed Hostility (Gottschalk-Gleser, 1969)

- Others (human) killing or threatening to kill self
- 7 6 Others (human) physically injuring, mutilating, or disfiguring self, or threatening to do so
- 5 Others (human) adversely criticizing, blaming, or expressing anger or dislike toward self or threatening to do so
- Others (human) abandoning or robbing self, causing suffering or an-4 guish, or threatening to do so
- Others (human) depriving, disappointing, or misunderstanding self or 3 threatening to do so
- 2 Self threatened with death from subhuman or inanimate object or death-dealing situation
- Others (subhuman, manimate, or situation) injuring, abandoning, or 1 robbing self, causing suffering or anguish
- Denial of blame

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Appendix IIIh

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CHAR	FRIENDLY		NDLY AGGRESS		ACTIVITY		EMOTION		ANXIETY		D.R.no
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	•	,						•	·		D.R.L.
SUCCE	: SS	GOOD	FORT.	FAIL	URE	MISFO	ORT.	HOST	ILITY	ARC	CHET
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Appendix IIIi

Some Suggestions Regarding Recall and Recording of Dreams

Recalling Dreams.

One method of keeping a dream journal is to have paper and pen at your bedside within easy reach. Upon awakening lay in bed with your eyes closed, scanning your memory for dreams. If none can be recalled do not press; there will be other nights in which recallable dreams will occur.

If you should awaken in the middle of the night with a dream in mind, try to review it before returning to sleep. Such reviewing during the night proves quite helpful for vivid morning dream recall.

Sometimes dreams that cannot be recalled upon awakening are remembered later on in the day. Please record these dreams as well, including the relevant date, time, and time elapsed since waking. Should you also recall dreams from naps during the day, use the same procedure as above.

Protocol for Recording Your Dreams.

Please write your remembered dreams on the provided dream record cards. On the front of the card, in addition to recording your dream note the date, time, and the time elapsed between waking up and recording your dream. Record only one dream per dream record card. When you finish, turn to the back of the card and try to complete the set of self-report dream information categories as they pertain to this dream.

What to Include in Your Dream Report.

Dreams are mental experiences occurring during sleep. They can involve perceptual, emotional, or intellectual faculties; however, our visual and emotional senses seem to be especially involved in dreaming. Though we tend to think of all dreams as possessing visual imagery dreaming does occur that is devoid of such content. A remembered dream may comprise anything from the most fleeting feeling or image or abstract idea to an experience of marked length and emotional intensity. Regardless of its variability, please treat each dream as a unique experience and record it just as you remember it.

When recording your dream try to be as accurate as possible. Your description of your dream should portray as closely as possible what you experienced when asleep, without adding or deleting anything.

In describing/ recording your dream try to avoid additional explanation or clarification. Some dreams are experienced and remembered as being rather disjointed and confusing, leaving one feeling tempted to revise it and enhance its apparent clarity. If the remembered dream is disjointed or bizarre-seeming please leave it this way when you record it. If certain aspects of your dream are unclear, or if you have forgotten them, do not insert substitute details. For example, if one of the dream characters cannot be remembered this should be indicated, as opposed to just filling it in with a name. If, however, a dream character appears to be either of two persons, indicate the possibility that it could be either rather than making a snap decision one way or the other. This applies to all aspects of your dreams: if uncertainty or confusion exists in your recollection of a dream - or in the its specific details - this should be left in your dream report. The basic idea is this: do not omit anything that can be recalled from your dream report, and do not add anything that cannot be recalled.

Enhancing Your Recall of Your Dreams.

The range of the number of dreams one recalls varies enormously from time to time and from person to person. This is so despite the fact that people dream every night throughout their lives, each night experiencing between 3-6 dreams. However, nowhere near this many dreams are remembered by the average individual. As such, the potential for increasing the number of dreams that you recall is, to say the least, quite substantial.

How can one's memory for dreams be improved? Most. important is the disposition adopted toward them. If an individual feels a genuine interest in - or at least a healthy curiosity about - dreams and considers them worthy of attention, it is highly likely that increased recall will follow. However, even with a feeling of commitment to remembering one's dreams, there will be periods when no dreams can be recalled. Even so, the simple predisposition towards attending to and remembering one's dreams has an overall, enduring, increasing effect.

Things that may enhance your dream recall include keeping pen and paper or a tape-recorder at your bedside, where they are easily accessible during the night or at waking. Another method involves self-suggestion, or thinking to yourself as you fall asleep that you would like to remember your dreams. Without understanding why, more than a few people have found this approach effective.

Upon awakening (in the morning or in the middle of the night) let your attention drift back to what was passing through mind during the night, including the period just prior to awakening. This part of sleep is the most densely packed in terms of dream time and is thus most likely to contain a dream recollection. By focusing your attention here - and not on the your uncoming day - you significantly increase your chances of remembering one or more dreams.

Appendix IIIj

DREAM RECORD CARD

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DREAM	1.2.3.11.	y.

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Please describe briefly as many of the following aspects of this dream as you can recall:

Setting:

Dream Characters:

Non-Human Dream Characters:

Central Theme of this Dream:

Primary Feeling (Emotion) in this Dream: Fear, Happiness, Fuzzlement, Excitement, Apprehension, Embarassment, Sexual Arousal, Other (Please Specify)

Intensity of this Feeling: Intense, Strong, Moderate, Weak, Very Weak

Time Frame of this Dream: Past, Present, Future, Mixed, Uncertain (Indeterminate)

Do You Appear/ Are You Present in this Dream? Yes, No, Uncertain

How Old Do You Seem To Be in this Dream? Current Age, Younger (Please Specify), Older (Specify) How Complete Is Your Recollection of this Dream? Whole, Mostly, Half, Partial, Fragmentary How Clear Is Your Recollection of this Dream? Very Clear, Clear, Somewhat Clear, Unclear, Very Unclear

If Applicable, How Similar Is This Dream To Your Recurrent Dream? Identical, Very Similar, Similar, Vaguely Similar, Not At All Similar

Appendix IV Content Analysis of Dream Reports of the Total Participant Sample (n=849 Dream Reports): Mean Event-Frequency per Content Category per Dream Report

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Dream Content Category	Mean Frequency
Characters	3.2
Activities	8.9
Friendly Interactions	0.59
Aggressive Interactions	0,52
Positive Emotions	0.36
Negative Emotions	1.10
Successes	0.08
Failures	0.14
Good Fortunes	0.10
Misfortunes	0.37
Anxiety	0.49
Dreamer Involved Hostility	0.37
Archetypality (Global Rating)	0.19

Appendix V. Pooled Within-Groups Correlation Matrix (n=67): Covariate, Psychological Well-Being & Dream Content Measures

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	x	Age	Sex	Edu	SES	<u>SDS</u>	Def	Psy-	DFr	DLe	DAc	•	
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SES		ns	ns	61						٤			
SDS `		ns	ns	ns	ns							,	
Defensive		ns	ns	.28	ns	.53						•	1
PsyMinded		ns	ns .	ns	ns	. 38	.24				۰ ۲		
DFrequency	•	ns	ns	ns	ns	ns	ns	ns	٠.			-	
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DActivity	م	ns	'ns	ns	ns	ns	ns	ns	ns	ns -		1	
Neuroticism		ns	ns	ns	ns	ns .	ns	30	ns	ns ′	ns	•	
Anxiety		nș	ns È	ns	ns	24	ns	29	ns	ุ้ทร	ns	•	
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			,							7			

Two-Tailed Pearson <u>r</u> Critical Value: <u>p</u>=.05, <u>df</u>=65, <u>r</u>= */-.202, ns=not significant