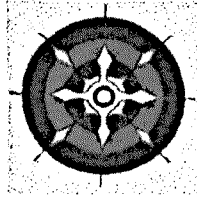*"Non enim aliquid contentione quaerimus, sed res profundissimas modestissime nosse desideramus"*

Cassiodorus of Vivarium, *De Anima*: 1

Psychohistory:

Emergence, Theory and Applications.

Thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor in Philosophy by

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Psychohistory: Emergence, Theory and Applications

by

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ABSTRACT

Psychohistory is one of the most ambitious enterprises of our era - an attempt to probe the sources of human motivation in history through the application of psychoanalytic insights to the analysis and interpretation of surface events. Psychohistory has always relied on psychoanalysis as a basic paradigm, an approach that has proved both a strength and a weakness, so ch. 1 of this study presents a brief history of modern psychoanalysis as well as the key concepts and the various schools that developed from the first psychoanalytic network initiated by Freud. Modern psychohistory began to emerge as an autonomous discipline with Freud's basic papers on civilisation, society, religion, group process and sexuality. Ch. 2 traces the key events that led to this emergence, one of the most important being the Holocaust of WWII and the migration of Central European scholars to the United States. Ch. 3 traces the history of the various study networks that emerged after 1972 and discusses the nature of the crisis currently facing the field, a crisis largely due to the constraints inherent in classical psychoanalytic theory. For psychohistory to realise its full potential, the field will need to emerge from these constraints and develop a more multidisciplinary perspective. Chs. 4-9 therefore explore some key concepts in psychology and related fields that offer the possibility of creating a metatheory that is sufficiently rigorous and flexible to permit the diversity of approach found in psychohistorical studies. Chs. 4 and 5 develop a morphogenetic theory of mind beginning with the most crucial point of emergence for human psychology - the boundary between quantum prespace and neural ultrastructure - showing how transmarginal stress experienced by the organism during morphogenesis (growth), birth and early growth create the psychodynamic mechanisms that combine during infancy, family life and integration with the wider social matrix to create both individual and group defensive constructs. The evolutionary origin of these mechanisms is discussed in ch. 6, while the following chapter presents some concepts from chaos and complexity theory that may assist in understanding how these mechanisms interact and expand from the level of the individual to that of a large social group. Ch. 8 shows how the affective residue of morphogenesis is expressed through cultural forms and how the evolution of these forms may be related to the growth, florescence and decay of the host culture. Ch. 9 integrates various strands of past theory over the metatheoretical base presented in previous chapters, then shows how psychoanalytically-based methodologies can be integrated with experimental approaches, how concepts derived from nonlinear science can be integrated with traditional statistics and how personal therapy or controlled 'ego-deconstruction' can minimise bias in research and applications. There follows a brief analysis of our current historical situation, a discussion of some applications in the fields of education and consultancy. The chapter concludes with suggestions as to how we may chart pathways through the historical transition facing us at the present time.

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Chapter 1. The Psychoanalytic Background

1.1. Introduction.

The emergence of modern psychohistory is closely linked to the history of psychoanalysis. It would therefore be appropriate to summarise briefly the developmental paths and basic theories of the psychoanalytic movement inasmuch as they are of direct relevance to psychohistory. Although psychoanalysis is a 20th century phenomenon, historical awareness of the unconscious has roots that reach deep into the past. Lancelot Law Whyte has shown that the role of the dynamic unconscious in human affairs was *"conceivable by 1700, topical by 1800 and effective (fashionable) by 1900"* (Whyte 1978 pp.63, 169). Yet despite an impressive list of historical antecedents lying well within the European tradition, the more provocative, radicalised and socially-subversive formulations of psychoanalysis emerged from within a socially-marginalised ethnic community with a long history of self-analysis and introspection.

1.2. The Jewish origins of psychoanalysis.

The question of Freud's Jewish identity and by extension, of the Jewish origins of psychoanalysis is a vexed one. The seminal study of David Bakan (1957), in true Kabbalistic fashion, extrapolates from Freud's Chassidic ancestry to establish firm links between Freud's thought and the Jewish mystical tradition. Robert (1976) however, strongly asserts that Freud sought to resolve his personal ambivalences through total repudiation of his Jewishness. Miller (1981), while rejecting Bakan's inferences, seeks to refute the opinions of biographers such as Sachs or Wittels that depict Freud as a thoroughly assimilated German whose mental heritage derived solely from the Enlightenment. Trench warfare intensified with Dennis Klein's (1981) encyclopaedic assertion of the Jewish origins of psychoanalysis and Gay's (1988) equally determined counter-assertion of Freud's exclusively atheistic, Enlightenment roots. When the smoke clears, the residual ash will be seen to contain particles from all these points of view and will be interpretable only in more generalised and abstract form in which individual is related to family, family to ethnic group and ethnic group to the dominant group-fantasies of the prevailing culture. Alienation breeds radicalisation. Jung affirmed that:

"Freud and Adler have beheld very clearly the shadow that accompanies us all. The Jews... because... of their civilisation, more than twice as ancient as ours, ... are vastly more conscious than we of human weakness, of the shadow side of things, and hence in this respect much less vulnerable than we are. Thanks to their experience of an old culture, they are able, while fully conscious of their frailties, to live on friendly and even tolerant terms with them, whereas we are still too young not to have 'illusions' about ourselves. As a member of a race with a three-thousand year-old civilisation, the Jew... has a wider area of psychological consciousness than we. Consequently it is in general less dangerous for the Jew to put a negative value on his unconscious. The 'Aryan' unconscious, on the other hand, contains explosive forces and seeds of a

future yet to be born and these may not be devalued as nursery romanticism without psychic danger" (my emphases)[1].

As Diller has also shown (1991 pp. 90-146), Freud's own family situation may have predisposed him to stress broader and more fundamental aspects of personality development in terms of his own concrete experience. Freud was the first child of his father Isaac's third marriage. Freud's mother Amalie, to whom he was greatly attached and whose relation to her son was not without ambivalence, was 20 years younger than his father, and moreover, there were two brothers from Isaac's first marriage who were much older than he was. As Diller suggests, the family dynamics probably encouraged Freud's particular conceptualisation of infantile sexuality and the Oedipus complex as well as of the dynamics of the 'primal horde' and the genesis of religion expressed in two of his key 'protopsychohistorical' papers, *Totem and Taboo* (1913) and *Moses and Monotheism* (1939).

1.3. 'Classical' psychoanalysis

The roots of 'classical' or Freudian psychoanalysis lie in the theory of instinctual repression. Freud postulated two 'basic instincts', sexuality and aggression, which he later expanded into the all-embracing principles of the life instinct (Eros) and the death instinct (Thanatos). According to Freud, frustration of sexual and aggressive instincts during the socialisation process causes their partial repression or deflection of aim (sublimation) in the interests of preserving stability within the social group. To protect the group from the potentially disruptive consequences of the re-emergence of these instincts in their 'raw' form, shared systems of intrapsychic defence are evolved over the course of time by different groups in various ways. These systems, taken together, are the essence of what we call culture or civilisation (Freud 1930). A 'successful' (i.e. culturally-sanctioned) mode of repression is termed *sublimation*, while a less-successful or partial repression may generate *neurosis* - the source of what a culture would designate as mental illness. The collapse of culturally-introjected defences in an individual, due either to some organic (neurological) cause and/or to a major 'recession' in what Freud called the individual's 'psychic economy', may lead to further regression and mental disintegration - i.e psychosis or schizophrenia. In Freud's view, all cultures are shared systems of collective neurosis, built upon the directed sublimation of instinct - especially sexuality. This is why Mazlish (1993a) considers Freud to have resolved the 'Third Discontinuity' - to have dissolved any 'absolute' boundary between mental illness and sanity.

One of the more controversial tenets of Freudian theory was the Oedipus complex. Freud's original definition of this complex in terms of the desire of a child to murder (or at least do away with) the parent of the same sex in order to possess the parent of the opposite sex was bound to provoke anxiety, controversy and popular misconceptions in late Victorian and early 20th century European society, as well as raise plausible questions as to the ubiquity of this complex among highly differentiated cultures. The very idea that such conflicts could exist threatened the late Victorian idealisation of

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[1] This quote, from an article entitled 'On the Present Situation of Psychotherapy' published in 1934 after the Nazi rise to power, also reveals a part of the sources of projective identification that lie at the root of anti-Semitism. Published later in Jung (1964 pp. 165-66) and cited in Diller (*op.cit.* pp.188-89).

women and of childhood innocence, an idealisation shown by Dijkstra (1986) to be a reaction-formation concealing strongly ambivalent desires and feelings towards women and children in general. Although Diller proposed that Freud's own family history may have predisposed him to interpret the oedipal conflict as he did, Slater (1970 pp. 61-89, 111-169) has suggested that oedipal conflicts were indeed expressed in more explicitly Freudian terms during the mid 20th century among the increasingly isolated 'nuclear' families of Euroamerican post-industrial society and were a contributory factor to the turbulence of the late 60's. Yet the texts of the Sophoclean tragedies *Oedipus Coloneus* and *Oedipus Tyrannus* are as much concerned with the traumas of abuse, abandonment and loss[2] as they are with the consequences of unwitting incest and its culturally-ordained punishment (Sagan 1993 pp. 37-39, 101-106 - see ch.8.4 of this study). Sagan shows how the supposed guilt of Oedipus was induced in him by the projected fears of the infanticidal superego of ancient Greek society (*op.cit.* pp. 122-27, 148-49 and *passim*). Oedipus *had* to be found guilty and forced to 'retroactively' castrate himself through self-blinding to protect adult infanticidally-based group-defences rooted in the incest taboo.

Oedipal conflicts therefore have their root in a 'nuclear' complex originating in the pre-, perinatal and immediate postnatal phases of growth - a symptom of that "*initial alienation that is the heritage of birth*" (Gruen 1999b) - and is shared by all. The specifically 'oedipal' phase of the complex develops in response to the stresses of separation-individuation, the child's growing confrontation with the demands and prerogatives of cultural authority, the projected fears of that authority in relation to the child and the subsequent 'deformation of the self' required by the child in adapting to it - the equivalence of castration (Rank 1926, Gruen 1993, Piven 2001 p. 154 note 15). As such, the Oedipus complex is ubiquitous, expressed through a variety of cultural symptoms, is clearly evident even in matriarchal societies (Róheim 1950 pp. 151-243, 319-360) and can be considered the basis of inter-generational conflict. Moreover, the *induced* guilt of Oedipus in the Sophoclean tragedies - forcing him to the act of symbolic self-castration through blinding - is indicative of a major pathological factor in the general *induction* of the oedipal conflict itself - the *counteroedipal* and *countercannibalistic* tendencies of adults who project their own childhood fears into their supposedly threatening, but in reality helpless, offspring (Devereux 1980 pp. 122-137, 138-147). The entire psychodynamic reflects the anxieties provoked by so-called 'infant sexuality' - which cannot be in any way congruent with adult conceptions of sexuality-as-such (given the impotence and helplessness of infancy), but rather the polymorphously-expressive (rather than 'perverse'), self-exploratory activities that accompany the child's quest for affection as well as individuation during the first phase of physical maturation prior to the latency period (Schore 1999, Mahler *et al.* 1975). Psychoanalytic anthropology has gone furthest in exploring the evolutionary origins of the oedipal complex and its critical role in the genesis of culture. This exploration derives primarily from the views expressed in Darwin's *Descent of Man* (1871) and Freud's *Totem and Taboo* (1913).

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[2] Atwood & Stolorow also point out that ambivalence, threat of loss and fear of abandonment can be discerned in Freud's own relationship with his mother, Amalie (*op.cit.* pp. 37-59).

Freud's work focused mainly on the individual, on the etiology of the neuroses and pathologies, and on their treatment in the clinical setting. He developed a topographic model of the mind - the tripartite structure of id, ego and superego in which the ego, as bearer of 'psychic integrity', is in continual conflict with and seeks compromise between, the divisive powers of the 'monsters of the id' on one hand, and on the other, the repressive demands of the superego as the fully-internalised imago of parental authority. He also envisaged a *bipolar dynamic* in which the emergent ego followed the *pleasure principle* as its main goal, while at the same time seeking to avoid pain. Freud viewed the pleasure principle as a state of stasis or rest, and pain as a state of tension. In those papers that begin to explore specifically psychohistorical issues (Freud 1908, 1913, 1915, 1921, 1927, 1930, 1932 and 1939) Freud begins to expand (and occasionally revise) these basic concepts in terms of the group, social life and the flow of cultural history. Frosh (1999) asserts that *"Freud was substantially more radical in his dissection of the individual psyche than in his grander, more overtly social works"* (p.42). Recent years have seen the emergence of a considerable number of studies devoted to psychoanalysis and society, but rather that 'substantially radicalising' Freud's basic ideas on this point any further, most of these studies tend to reflect shifting concerns within the psychoanalytic movement that parallel the dominant sociopolitical crises and concerns of the latter half of the 20th century (Fig.1.2 below). Moreover, evolving trends in psychoanalytic theory tended to bifurcate - to strengthen the individual ego (the 'Me' decade) or seek a gradual *deconstruction of the self* (see below). This is in response to the demands of a culture in crisis - that of a complexity threshold - and which is experiencing 'diminishing marginal returns' in consequence (Tainter 1988 pp.91-216). Faced with this crisis, late capitalist societies seek further means of coercion and control in the interests of maintaining the delusion of unrestricted growth (Wasdell 1992), elaborating and intensifying bureaucratic control on one hand, while reducing the internal complexity of their members through the dissolution of inner personal boundaries on the other (Siltala, 2001). At the same time the reactivation and intensification of archaic paranoid-schizoid anxieties due to the increasing failure of the defensive functions of religious systems force national groups to strengthen the external boundaries of the social 'womb' and become increasingly hostile to further extensions of psychoanalytic insight (Wasdell 1979 pp.5-7; 1980a p.9).

Such a short discussion does little justice to the more subtle implications of Freud's thought, at the core of which lies *"an overarching concern with the most profound conflict of human existence, the agony of recognition of our 'creatureliness' with all of its evolutionarily-dictated baseness balanced against our rich cognitive capacity for transcendent thought with its extensions to symbolism, religion and esthetics - and the knowledge derived from this mental capacity that the base creature must eventually die"* (Reber 1995 p. 300). The entire 'primordial melody of the instincts'[3] in Freud's theory - the dynamics of repression, reaction-formation, dissociation, displacement, condensation, cathexis, countercathexis, conversion, sublimation, projective-introjective identification and all other strategies employed by the individual to maintain homeostasis or balance in the psychic economy with respect to the group, would only become more fully

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[3] From Freud (1914), written after the first major split in the psychoanalytic movement brought about by the supposedly provoked 'defection' of Alfred Adler in 1911 (Schwartz 1999 pp.112-115).

understood as awareness of the psychological dimensions of human morphogenesis developed during the latter third of the 20th century.

1.4. Conflict and divergence among the epigoni.
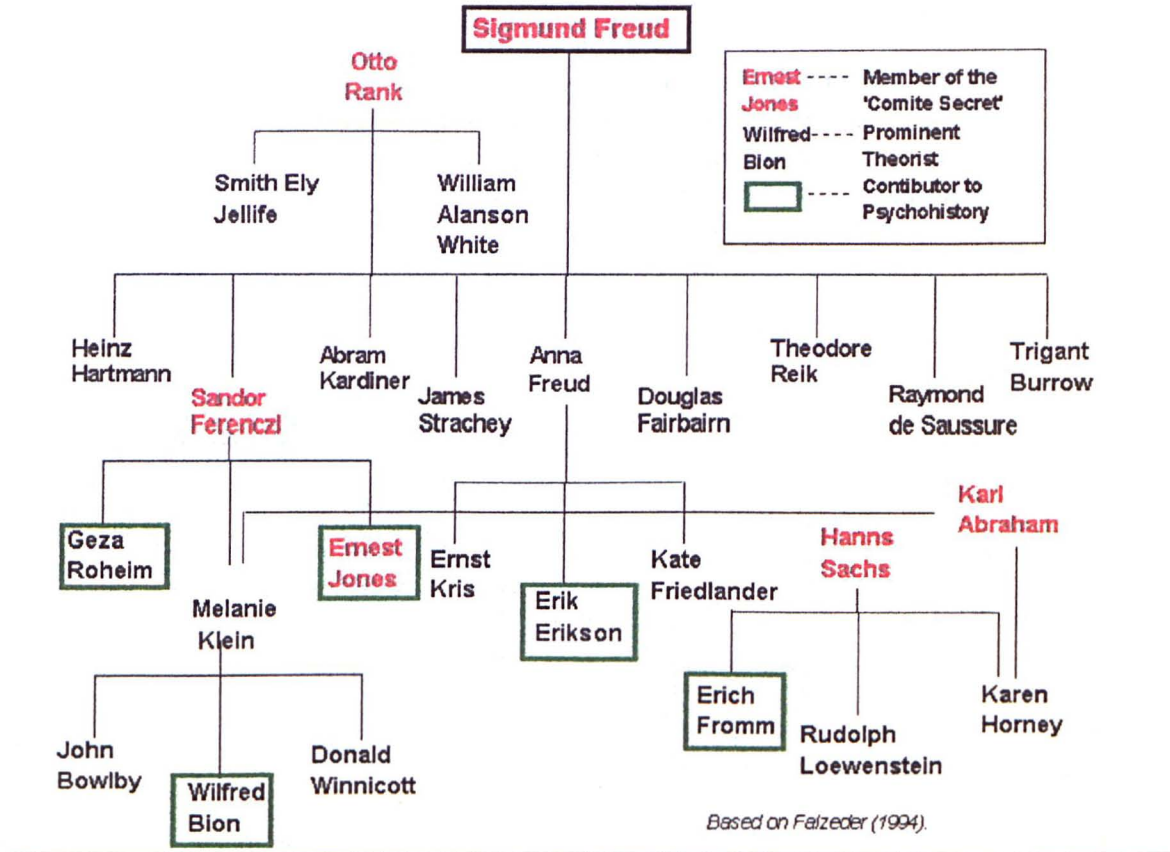
Fig. 1.1: Affiliations within the First Psychoanalytic Network

Freud's work catalysed the formation of autonomous networks which displayed to a highly explicit, contextualised degree all the relational dynamics characteristic of transgenerational networks as analysed by Collins (1991). Interpersonal dynamics within the psychoanalytic networks were compounded and intensified by the analyst-analysand relationship (Fig.1.1) and the divergences, disagreements and conflicts that arose within and between the first and secondary networks derived from the psychological and sociohistorically-contextualised backgrounds of the various protagonists (Schwartz 1999). This is a problem endemic to the human sciences (Devereux 1967). Researchers find themselves *in media res* - and expect their chosen theory to provide them with the 'ultimate answers' to the problems of love, hate, sexuality, conflict and death. Alternative theories that evoke anxiety are pathologised. Protagonists in a social scientific dispute therefore prefer to offer arguments *ad hominem* rather than co-operate in the quest for a deeper perspective on the human condition from which the discipline could fruitfully develop. This would suggest that the hidden function of the human sciences in the shared unconscious is less that of probing existential realities, but rather of containing the

boundaries of intolerable anxiety both within a given historical context and those common to the species as a whole.

The archetypal conflicts within the first network- those between Freud, Adler, Rank and Jung - support these conclusions. As Schwartz (1999) points out:

"*What informed the early splits in psychoanalysis was the difficulty in accommodating the variegated psychologies of human beings in society. We are still very far from an understanding of how our unconscious processes are formed through social experience. We do not even have a theory of language acquisition as an example of perhaps our most unconscious learning process. In place of an adequate understanding of the effect of the social formation on conscious and unconscious processes, a problem far exceeding the resources of early psychoanalysis, Freud, Adler and Jung were forced to insist, above all else, on their own visions of the human inner life. In doing so they re-enacted through their visions the class, racial and sexual tensions of the society in which they lived*" (p.109).

Bearing in mind Jung's perspective on this conflict (cited above), Schwartz goes on to say that:

"*In the case of the split between Freud and Adler, class tensions were dominant, with Freud representing the isolated individual psychology of upper-middle-class Vienna, and Adler the collective psychology of the immigrant working class. In Jung's case it was both class and racial tensions that divided him from Freud. Jung embodied the collective psychology of the European peasantry, immersed in the powerful myths and symbols of the preceding 2000 years of Christianity; Freud, in contrast, represented the psychology of the cosmopolitan Jewish bourgeoisie*" (p.109).

Freud's break with Otto Rank, on whom he had originally placed high hopes as a possible 'successor' (*ibid.* p.110), was also of considerable significance during the disciplines' foundational years. In 1923 Rank, a gentile, had published his seminal work *The Trauma of Birth* in which he emphasised the determinant role *of repressed memories of the birth experience* in the evolution of psychic life. Freud's reception of Rank's theories was positive at first, but later became more ambivalent, though never completely negative - as Frosh says "*he was willing to allow a certain function for birth trauma, that of giving the affect of anxiety 'certain characteristic forms of anxiety'*" (1999 pp. 64-5). Both men were strongly narcissistic and sought to portray themselves as 'lonely heroes' in a situation of 'splendid isolation' (Atwood & Stolorow *op.cit.* pp.37-59, 127-64; Sulloway 1996 pp. 445-89). Both tended to form strong emotional bonds which they would then 'allow' to rupture through unconscious re-staging of the drama of betrayal or abandonment (Atwood & Stolorow *op.cit.* pp.45-53, 142-5). Rank's work nevertheless set the stage for the later emergence of pre-and perinatal psychology. David Wasdell has suggested that the root of Freud's conflict with Rank lay in the latter's seeking to push the boundaries of analysis beyond the postnatal frontier forcefully delineated by the analytic 'father' and his acolytes (Wasdell 1990a pp. 20-1). Freud's fixation on oedipality and on castration as symbolic 'death' reflected a part-object fixation on the penis induced by the ethnically-specific, developmentally-immediate trauma of circumcision (*op.cit.* p. 20,

1980a pp. 11-12) and Rank, being the only 'gentile' of the first network, felt free of the imposed authority of this barrier. Rank elaborated on the traumatic consequences of rupturing what Trigant Burrow had called the *principle of primary identification* (Burrow 1964 pp. 7-60) - the prenatal bond of unity and symbiosis with the mother - and of the agonising transition of birth itself[4]. Rank's explorations of the birth trauma, along with Stanislav Grof's LSD-induced regression experiments from 1956 (Grof 1975, 1977) encouraged Lloyd deMause to postulate Grof's sequence of four *basic perinatal matrices* as the unconscious catalyst and structuring factor in war, revolution and the political process in general (deMause 1982 pp. 244-51). Rank's analysis of narcissism also provided insights into many of the psychological problems endemic to late 20th century post-industrial society, especially those arising in the context of sexual and interpersonal relations, where the dynamic of *archaic selfobject relations* - i.e. the appraisal of another person in terms of the emotional residue derived from early experiences with significant others - may play a destabilising role in marital and social relations (Atwood & Stolorow *op.cit.* pp.136-39).

1.5. The analytical psychology of Carl Gustav Jung (1875-1961).

C. G. Jung was another 'gentile' associated with the first psychoanalytic network. A Protestant Swiss psychiatrist working at the Burghölzli Mental Hospital in Zürich, Jung was invited by Freud to take over intellectual and institutional leadership of the Vienna network in an attempt to escape what Freud perceived as the 'superficiality' of Viennese society and the very real threat to the future of the discipline posed by an ever-latent anti-Semitism (Schwarz 1999 p. 105). The views of Jung and Freud were not, however, to prove compatible. Jung's Protestant, Germanic background led him to reject the more radicalised, subversive and (to European middle-class consciousness) repugnant sexual basis of Freud's thinking and to focus on a non-pathological *collective unconscious* as the basis for analytical psychology (see quote on pp. 1-2 above). According to Jung, dreams, mythology and religion are not pathological in themselves, but provide a 'given' basis for therapy. Their morphogenetic origins and the formation of the collective unconscious are not questioned. As we shall see however, psychohistory focuses on exactly those aspects of the collective unconscious that *are* pathological and seeks to uncover the morphogenetic origin of dreams, mythology and religion as well as their function as collusionally-defensive constructs. Neither is the Jungian *archetype* the same as the *archetypal morphology* introduced later in the present study. The latter is a preverbal, neurobiological dynamic, created through somatic and morphogenetic experience. It becomes condensed, compactified and imprinted both visually and verbally in the course of early postnatal experience and it is only in this condensed, 'hypostatised' form that it becomes the basis of the Jungian archetype. The Jungian 'Shadow' is an entity with which a healthy psychic equilibrium is to be sought, but since analytical psychology does not probe the origin of this Shadow, it cannot recommend sound, deeply effective and stable modes of engagement with it. Although Van Eenwyk has convincingly shown that much

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[4] Burrow, an early analysand of Freud's, remains a cryptic and neglected figure in the history of psychoanalysis, but his work contains a highly suggestive treatment of the manner in which Freud's 'certain characteristic forms of expression' appear in art, music and literature (Burrow *op.cit.* pp. 65-100) - a subject to be discussed more fully in ch. 8.

of Jung's thinking is consonant with certain concepts found in complexity science (Van Eenwyk 1997; ch.7 of the present study), this consonance, while intriguing and suggestive, is too shallow to permit the more rigorous depth of analysis required by psychohistory.

1.6. Anna Freud and the origins of ego psychology.

The next major split - within the 'second generation' of psychoanalysts - was to generate significant secondary networks. This was the extended dispute over the issue of child analysis between Freud's daughter, Anna Freud, and Melanie Klein. Although most analysts of the time accepted that "*both ego and id '... emerge from the common undifferentiated matrix of the first extrauterine phase of ontogenesis...*" (Hartmann *et al.* 1946; Burrow *op.cit.* pp.9-24), Anna Freud and Klein differed fundamentally as to which component of the psyche played a more significant role in subsequent child development. Anna Freud came to psychoanalysis from a teaching background, a factor that greatly influenced her conception of autonomous ego development (Schwartz *op.cit.* pp. 209-10) which she believed to be of greater significance *per se* than the repression of id-derived conflicts. She strongly disapproved of infant analysis, believing that "*a child's dependence on the still-developing relationship with its parents precluded the possibility of a transference (substitute) relationship developing with the therapist. Instead, the child needed support and education, a non-analytic preparation for dealing with its problems*" (*op.cit.* p. 210). In Anna Freud's conception of ego emergence and subsequent developmental phases as described in her seminal work *The Ego and the Mechanisms of Defence* (1936) she "*consistently maintained the significance of the balance between internal drives and external forces, leading her to focus on the unfolding of ego functions in relation to drive stages as a crucial developmental issue*" (Frosh 1999 p. 82). Anna Freud herself states that "*from the beginning analysis, as a therapeutic method, was concerned with the ego and its aberrations, the investigation of the id and of its mode of operation was always only a means to an end. And the end was invariably the same: the correction of those abnormalities and the restoration of the ego to its integrity*" (A. Freud 1936 p.4).

The sequence of developmental stages that incorporates the 'unfolding of ego functions' is linked to the epigenetic unfolding of the organism. Thus Anna Freud's phases of affective development are analogous to but by no means co-terminous with, Piaget's scheme of cognitive unfolding (Piaget 1923, 1932, 1971). She nevertheless sought a more holistic approach to child assessment and criticised the classical Freudian emphasis on sexual and aggressive drives, believing that "*these selected developmental scales ... are valid for isolated parts the child's personality only, not for its totality. What we are looking for are the basic interactions between id and ego and their various developmental levels, and also the age-related sequences of them which, in importance, frequency and regularity are comparable to the maturational sequence of libidinal stages or the gradual unfolding of ego functions*" (A. Freud 1966 p.59).

Adler's conflict with Freud centred around the issue of ego autonomy and he is considered by many to have laid the foundations of what later came to be known as *ego psychology* (Sulloway 1979 p. 431). However, Adler was branded a 'heretic' at the time,

and it was Anna Freud who, in the eyes of the 'orthodox', is considered the true founder of this branch of psychoanalysis - whose later proponents included Erikson, Hartmann, Kohut, Kris, Loewenstein and Rapaport. Ego psychology has been strongly criticised for its normative emphasis, and for its seeming denial of the subversive power of psychoanalysis. This was not the original intention of its advocates, who were more concerned with stressing the role of human agency and freedom in the development of psychic life and who were careful to avoid any confusion of the unfolding of ego functions *as process* with such concepts as 'self', 'individual or 'personality'. Nevertheless they were unable to control the later development of their ideas among American ego psychologists. The expansion of American power after the conclusion of the 31-year 'axial conflict' saw the growth of multinational corporations, polarisation of feeling vs. the USSR (the Cold War), increasing complexification and stratification of late industrial societies, the standardisation of cultural values and the attendant growth of paranoid-schizoid anxiety - all features of what Toynbee had called the 'Universal State' (see also De Landa 1997 pp. 257-74). What the US required was not a liberalising psychology but something complementary to Pavlovian behaviourism that would *appear* democratic, even if its real aim was to define 'sanity' as conformity to social norms and to encourage adaptation to them. Accordingly, under the influence and direction of Freud's nephew Edward Bernays, the precepts of ego-psychology were co-opted by business in an effort to access and exploit the 'inner drives' of the consumer. This period, from the 1930's-50's, represents the first phase of the incorporation of psychoanalytic theory into social and political power structures. But as Schwartz points out, "*social conformity was the version of adaptation that ego psychoanalysts as a group in the US were seen to be transmitting to their patients, inspiring a search for alternatives*" (*op.cit.* p. 191). The most important of these alternatives grew out of the work of Anna Freud's nemesis - Melanie Klein.

1.7. 'Monsters of the Id' - the work of Melanie Klein.

In contradiction to Anna Freud, Klein maintained that the analysis of very young children was not only possible but necessary if any insights were to be gained into the deeper workings of the psyche. Klein states almost ruthlessly that "*analysis is not in itself a gentle method: it cannot spare the patient any suffering and this applies equally to children*" (Klein 1927 p.344 - original emphasis). Kleinian theory begins with the earliest postnatal phase of the relationship between neonate and primary caregiver. However, beneath the 'primary identification' so eulogised by Burrow (and later, by Bowlby) darkly ambivalent strata exist from the very moment of birth. The infant, according to Klein, "*begins life under the sign of the death drive*" (Elliott 1994 p.84) and "*at a very early stage of life...the infant experiences violent and intense feelings of aggression in its imaginary relation to the mother*" (*ibid.* p.84). The word *imaginary* is crucial since Kleinian theory stresses the genesis and role of *fantasy* (spelt *phantasy*) in interpersonal relationships. The aggression felt by the infant arises from panic induced by the perceived threat of dissolution or death, provoked in turn by the inevitable moments of temporary maternal abandonment. To protect itself from this threat of dissolution the child 'projects' its negative affect back into *parts* of the primary caregiver, a reaction that can stimulate further panic since the child is still utterly dependent on what is now felt to be the 'incarnation' of this negative affect - the caregiver - who becomes a source of persecutory anxiety. At the same time, the infant also projects good feelings into what are

experienced as the responsive, nurturant parts of the caregiver with the result that the latter will eventually become a 'mixed' object - the dominant factor in the external environment, but one fraught with ambivalence. This outward displacement of good and bad parts of the self is the origin of the Kleinian concept of *projective identification*. As a defence, this process is itself ambivalent in that it not only evokes persecutory anxiety, which can threaten to overwhelm the nascent ego but at the same time threatens it with self-depletion. Therefore the infant will also seek to 'introject' or take into itself and identify with, the 'good' objects - those that represent love and nurturance. This is the origin of the concept of *introjective identification*, or simply 'introjection'. This occurs because the emergent, as yet unformed ego present during the 'first extrauterine phase of ontogenesis' is incapable of dealing with ambivalence and is therefore driven to protect itself through the defence of 'splitting' - the attempted expulsion of all 'bad' objects outside the self and the retention or assimilation of all that are perceived as 'good' or, as Klein puts it, the expulsion of the 'bad breast' and introjection of the 'good breast'. All this means little to the bottle-fed, and would need reinterpretation in terms of good and bad 'selfobjects' and general 'nurturance'.

The key differences between Freudian and Kleinian concepts of projection lie in the fact that whereas Freudian theory views projection as the cathexis, condensation or displacement of essentially directionless, instinctually-derived drive energies onto an external object which acts simply as an 'affective focus' for such energies, Kleinian projective identification involves the actual insertion of fantasised parts of the self into an external object in the hope that the object can somehow be assimilated at a distance and thereby controlled. In Kleinian theory fantasy (or 'phantasy'), together with the mechanisms of projective and introjective identification, are considered to be fundamental operations in the unfolding of the psychological 'chreod' which bind and relate the individual to the social environment. They are in no way inherently pathological. As will be discussed later (chs. 4 and 7), the evolving structures of fantasy derive from the pre-verbal morphologies that are themselves the echoes or 'affective residue' of prenatal and perinatal trauma - the source of both life and death drives (Grof *op.cit.*; deMause *op.cit.* pp. 251-260; Rank 1923). Hannah Segal states that "*phantasy is not merely an escape from reality, but a constant and unavoidable accompaniment of real experiences, constantly interacting with them*" (Segal 1973 p. 14). All creativity therefore arises through fantasy which is the dialectical intermediary between psyche and reality.

The process of 'splitting', employed by the immature ego incapable as yet of dealing with the complexities of ambivalence as a desperate defence against the threat of annihilation, gives rise to what Kleinians call the *paranoid-schizoid* position. Paranoid-schizoid behaviour is endemic at all phases of human psychological growth and forms a continual substrate even when external behaviours appear dominated by the depressive position. Paranoid-schizoid dynamics emerge to dominate the depressive position when individuals or groups are confronted with what is perceived as overwhelming complexity and ambivalence in the external world. Under these conditions, reactivation of the stresses of perinatal impingement can precipitate a retreat to the regressed, archaic state of the fetal trance, provoking extremely dysfunctional responses to any external challenge.

Klein had little to say about the influence of cultural factors in personality growth. Kleinian theorists are therefore compelled to extend the implications of the theory by minimalising the importance of any originary state of 'primary identification' and insisting on ambivalence as an existential given. It is the satisfactory resolution of this ambivalence through the unfolding dialogue between the psyche and the presenting environment that confers stability on the emergent self and enables that creative 'Orphic response to the evolutionary sources of awe' that we call culture. The very negativity inherent in this ambivalence is an essential component of this dialogue and contributes to self-stability and cultural expression by catalysing continual self-transformation in response to internal and external challenges. But however positive cultural expression may seem, it can never be free from the 'dark side' - the archaic pathological strata of early infant experience. These strata contain the early residue of envy, greed and a sense of loss. The infant experiences envy towards the caregiver, irrespective of whether the caregiver is perceived as a 'good' or 'bad' object. In the words of Klein "*I consider that envy is an oral-sadistic and anal-sadistic expression of destructive impulses, operative from the beginning of life, and that it has a constitutional basis*" (Klein 1988b p. 176). If the 'bad' aspects of the caregiver provoke envy inasmuch as the 'bad breast' (i.e. the totality of negative early selfobjects) is perceived as mean and grudging, the 'good' aspects are also envied since the infant has an insatiable desire to incorporate these 'good' aspects into itself. Envy is therefore linked with greed, and both are destructive as Frosh observes, citing Greenberg and Mitchell (1983): "*Where greed and envy differ is in that the former is primarily concerned with introjection (taking in all the object's goodness), the latter with projection (putting badness into the object to destroy it). It is this projective mode of operation that makes envy such a pure and powerful expression of the Death Instinct: whereas destructiveness is a **consequence** of greed, it is a **motive for** envy*" (Frosh op.cit. p.125: original emphasis). However, as a more integrated perception of the caregiver develops and when there is a preponderance of 'good' over 'bad' experiences in the early phases of ontogenesis, these destructive wishes precipitate sorrow due to the threat of loss of the 'good'. This sorrow then gives rise to a wish for reparation, which in turn enhances the gradual process of integration in which the caregiver is increasingly perceived as an indissoluble mixture of 'good' and 'bad' with the 'good' (hopefully) outweighing the 'bad'. These combined operations of guilt, sorrow and reparation constitute the basis of what Kleinians call the depressive position - the foundation of a loving, caring, empathic and creative response to the external world.

Klein's darker vision of the human psyche emerged during the emotional and physical upheavals of the 'inter-conflict' phase prior to WWII, when feelings of insecurity and doubt about the future and the very viability of the human condition led W.H. Auden in 1947 to describe the 20th century as "The Age of Anxiety". Klein's psychoanalytic vision has never been 'popular' since, like Freud, she offers no utopian or even soothing palliative to 'the hopes and fears of all the years'. The psychological substrate of the 'death drive' is suggested by studies of intrauterine experience, of placental degeneration, infantile hypoxia and other environmental factors known to induce prenatal anxiety (sources listed in deMause op.cit. pp. 321-24: notes 51-83, see also Wasdell 1979, 1980a, 1980b, 1990, 2002 together with cited sources) and there is evidence that these factors, compounded or annealed through ambivalent relations with the primary caregiver are

strongly implicated in Sudden Infant Death Syndrome (Gruen 1999a). Meanwhile, the 'endless insidious dance of projective and introjective identification' (Stein 1987) offers clues to the structuring and evolution of the *psychohistorical matrix* by weaving the invisible threads of the psychic web that binds the individual to family (Laing 1971), local community (Stein 1987), work organisations (Czander 1993) and nation (Elliott *op.cit.*; Stein *op.cit.*). Through this web, as generation succeeds generation, blow the winds of anxiety fanned by personal and intergenerational conflicts, historical crises and the general curve of social evolution, causing fluctuations in shared fantasies across different time-scales and at various group levels between paranoid-schizoid and depressive polarities. Because of these fluctuations, as Elliott states, "*social meanings and cultural identities are forged and integrated only to be destroyed, and in turn are thereby open to renewal*" (*op.cit.* p.84). Noting that "*the paranoid-schizoid position of psychic functioning can be seen as institutionalised within whole sectors of modern culture*" (*ibid.* p.78), Elliot goes on to observe that "*splitting, when institutionalised, can lead to acute ambivalence in sexual relations*" (*ibid.*) and that "*a good deal of the imagery of modern culture - the superficial gloss of flashy commodities, seductive advertising images, and the like - are shot through with powerful paranoid feelings and idealised aspects of the self*" (*ibid.* p.84). Having pointed out that "*the imaginative world of the pre-school infant... is bent into a two-dimensional fantasy world by television*" he adds in almost prophetic vein (given the present time of writing) that "*one can see how mechanisms of splitting, idealization and denigration take hold of entire nations - fuelling terrors of real and imagined security threats, or underwriting a position of nuclear self-destruction*[5]. *Indeed, one of the most striking aspects of the risk of massively destructive warfare in the contemporary age has been the response of general public apathy, a kind of psychic denial that comes to the fore under states of extreme splitting*" (*ibid.* pp.78-9). Moreover, the location of corporations, organisations and other task-oriented groups on the paranoid-schizoid/depressive scale gives a strong indication of the dimensionality with which these groups actually perceive social and economic realities and their subsequent ability to act upon them (Czander 1993, Satish 1997, Streufert & Satish 1997). The Kleinian postulate that ambivalence is an existential given - one that openly confronts the darker side of human nature - accounts for Klein's influence among many later psychohistorians. Stressing *process* as opposed to *structure*, Kleinian theory draws the 'monsters of the Id' into a dynamic relationship with reality, linking the individual with society through the merging of interpersonal and shared fantasy and suggesting that the sole possibility of conflict resolution resides in the gaining of "*transcendence as normative identity*" (Stein 1987 pp. 369-374). The Life and Death Instincts nevertheless form the agreed boundaries of the Kleinian construct and the *ne plus ultra* of the 'classical' psychoanalytic paradigm. We come up once more against the brick wall of the 'innate' - possibilities for Steinian transcendence are arrested while the psychogenetic core remains untouched.

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[5] Including, at the present time (2005), 'poison fears' related to real or imagined acts of chemical or biological terrorism.

1.8. Return to the 'Body of the Mother' - Object Relations Theory.

Klein's more immediate and direct influence was on the object-relations theorists Donald Winnicott and John Bowlby and to a lesser extent on Douglas Fairbairn and his 'acolyte' Harry Guntrip as well as on the group-process theorists of the Tavistock School including Wilfred Bion. However, in the hands of these workers and researchers the Kleinian vision underwent subtle but significant changes to the point where the link with classical id- and drive-dominated theories became extremely tenuous and began to dissolve altogether. In their reassertion of the principle of primary identification and their almost exclusive emphasis on postnatal interpersonal relations as the origin of the matrix from which the ego grew and matured, object-relations theorists created a new relational/attachment paradigm which *"surrounded the old from the outside"* (Schwartz *op.cit.* p. 241, 243-44) yet at the same time retreated to a safer distance from the Kleinian frontier.

In this new model, structures and mental frames through which the individual comes to understand and relate to persons and situations in the external environment evolve - at first exclusively - through interactions with the primary caregiver, a stage in postnatal development called the *"critical phase of the practising period"* (Mahler *et al.* 1975; Schore 1994; Siegal 1999). As a result of what Winnicott terms 'good-enough mothering' the infant is able to develop a 'true' or 'authentic' self through individuation which will subsequently serve as the basis of fruitful interpersonal relations throughout life. Maternal failure on the other hand can induce the formation of a 'false self' in which individuation is arrested at a critical point during the practising period and the ego is structured through forced compromise with external reality in the interests of survival (Gruen 1992). The neurobiological mechanisms and dynamics by means of which mental frames come to be formed during the practising period have been extensively studied by Schore (1994) and will be discussed further in ch.4. From the object-relations perspective, the kinds of personality disorder that may or may not develop later in life and the overall character-type that finally emerges will depend, as in the Kleinian model, on the degree to which 'good' objects - i.e. satisfactory interpersonal experiences - preponderate over 'bad' ones in the early phases of growth. Fairbairn, in stressing that human beings are fundamentally *relationship*-seeking rather than *pleasure*-seeking (in the sexual sense), departs somewhat from Freud in viewing sexualised behaviour (for its own sake) to be essentially pathological - a consequence of failed or deformed internalised frames of relationship (Fairbairn 1952).

The emphasis placed by object-relations theory (ORT) on the role of interpersonal factors in psychic development did not *deliberately* seek to exclude the earlier insights of classical psychoanalysis. ORT sought not so much to change the older paradigm as flow around, incorporate and absorb it. Fairbairn was quite explicit on this point. A synthesist by nature, he refused, despite interpersonal difficulties with Klein, to be drawn into the hostile, mutually-pathologising and 'incestuous' repercussions of the Anna Freudian-

Kleinian war in London (Fairbairn 1929, Schwartz 1999 p.276)[6]. His refusal to participate in this pathological group dynamic led to his ostracism by the psychoanalytic establishment and avoidance by Kleinian-oriented colleagues at the Tavistock School (*ibid.* p.242). In a situation similar to that of deMause in the final quarter of the 20th century (see ch.4), trainee analysts were told to avoid Winnicott and to refrain from citing his work in their studies if they wished to advance professionally (Kahr 1996).

Despite resistance on the part of the psychoanalytic inquisition, ORT and the group process studies initiated at the Tavistock School represent Britain's most significant contribution to psychoanalysis. The infantile-regressive assumptions of the Freudian-Kleinian construct were retained in Wilfred Bion's formulation of the dynamics of group regression and his analysis of the three 'basic assumptions' of dependence, fight/flight and pairing ('messianism') that dominate the shared mental states of the 'psychological group' (Bion 1961). The dynamic interplay and evolution of these states, as well as their roles in the catalysis of group-fantasy, have been explored by a number of major theorists such as Ackerman, Anzieu, Bion, Hartman, Slater, Stein, Stierlin, Turquet, Wasdell *et alia.* A fuller discussion of group process theory is reserved for ch.5.

ORT initiated the application of psychoanalytic insights to the exploration of generalised social relations and culture theory. The extension of psychoanalytic thought in this direction became a current quite distinct from that of psychoanalytic anthropology in that it focussed directly on problems in Euroamerican late capitalist society rather than deflecting social concerns onto more remote cultures. ORT was important for the development of psychohistorical theory since it at once provoked and sought to explain a number of fundamental questions relating to individuation and the relationship of the individual to society. These include:

1) how childrearing patterns influence social process,
2) how social values may critically influence the caregiver and determine childrearing patterns,
3) how relational frames develop within the context of the family and
4) how the emotional patterns or frames that develop within the family context become transmitted over generations.

Nevertheless, the 'objects' of object-relations theory remain bricks in a theoretical construct that blocks further probing into what may or may not be 'innate'. The focus on relatedness shifts emphasis away from the genesis of the unconscious to what lies 'out there'. Winnicot himself strongly insisted on the 'normality' of human reproductive strategies, refusing to countenance the possibility that 'normality' itself may be pathogenic. From this perspective, ORT itself can be understood as a projective device, evolved within psychoanalysis as a defence against anxieties generated by the Freudian-Kleinian confrontation in London.

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[6] 'Incestuous' - in reference to what Falzeder (1994) calls the 'spaghetti junction of analysis' - the intense network of analysts, analysands and their children that was to engender so much rivalry and mutual hatred within the psychoanalytic community (Schwartz *op.cit.* p.196).

1.9. The pull towards conformity - the work of Erik Erikson.

The apostle of ORT in the United States was Erik Erikson. His work became highly popular there, but opened pathways for the interpersonal framework of classic ORT to become infiltrated and colonised by the socially-adaptive prescriptions of American ego psychology (Elliott *op.cit.* pp.66-67). Despite this, Erikson's contribution to psychoanalytic and psychohistorical theory was important in three respects. First, he was keen to explore stages in psychodynamic growth *throughout* the lifespan, developing a scheme of eight such phases during the 40's and 50's. The prescriptive implications of these stages as formulated by Erikson himself (Erikson 1950a, 1950b, 1964), as well as his claims for their historical universality, were criticised by Lifton (1970), who argued that the manner of their realisation and emergence in time remain highly plastic and depend on the psychodynamic history and sociohistorical embeddedness of the individual. Lifton also maintained that these stages reflected Erikson's own middle-class bias - that he had formulated these stages while researching problems in acculturation exclusively among the Sioux and Yurok. Nevertheless, Erikson's perspective reminds psychohistorians that while early childhood experience remains critical, developments involving the integration of multiple and often contradictory facets of life-experience at later stages in the lifespan in the interests of preserving ego stability and a viable social identity need not *always* be maladaptive in *all* sociohistorical contexts. Erikson himself insisted that there should be an empathic focus on the kinds of adaptive solution available at particular epochs rather than a tendency to pathologise historical personalities for not finding solutions more appropriate for our own time. Second, despite Lifton's criticism, Erikson was careful to stress the degree to which social and cultural values come to permeate the matrix of a developing identity, such that *each age and society seeks to create for itself the type of character and personality best suited to it* (Erikson 1975). Third, Erikson's early experiment in psychobiography, *Young Man Luther* (1958), was one of the first attempts to identify possible criteria for psychohistorical evidence with regard to a personality comparatively distant in social space and time. Despite clear deficiencies in this respect, it remained a landmark which was to encourage further psychobiographical exploration and lead to the search for better methodologies as well as more refined techniques of interpretation. Erikson's affiliation with the Wellfleet Group and his more explicit contributions to psychohistorical theory will be explored further in ch.2.

1.10. The pull towards individuation - the humanistic psychoanalysis of Erich Fromm.

If, as US ego psychologists maintain, humans are biologically programmed to adapt to existing social conditions as 'the best of all possible worlds', how does it come about that alienation, *anomie* and social disintegration are such recurrent themes of history, as well as such prominent features of late modernity? Erikson proposed that such lapses in concordance between the psychological development of the individual and his/her social situatedness occur due to failure in the growth of 'basic trust' between self and significant others in early childhood. This view was strongly disputed by Erich Fromm, a Marxist-oriented analyst of the Frankfurt School, who saw such lapses as inevitable not, as Freud suggested, because we must suffer repression in order to join society, nor because of

failure to establish Erikson's bonds of 'basic trust', but rather because *"society itself inscribes deformation and isolation at the heart of human relations"* (Elliott *op.cit.* p.43). Fromm saw the family as the 'psychological agent of society' (Fromm 1941, 1942) through which emergent mental frames become structured in terms of power relations and the dynamics of dominance and submission. Echoing Winnicott's delineation of the 'false' as opposed to the 'true' self, Fromm further asseverates that all adaptation to social demands is in effect a series of deeper and deeper compromises or betrayals of the 'authentic self' achieved in the interests of assuring the acceptance of the self by others and thereby, of social survival. These compromises remain riddled with tensions between five pairs of bipolarities operating at the core of the individuation process. These pairs, as set out by Fromm (1991 pp.30-66) and cited by Elliott (*op.cit.* p.45) can be summarised as follows:

1) *Relatedness vs. narcissism*: unlike the OR theorists, Fromm considers the need for relatedness not as instinctual *per se*, but as a problem arising from the separation-individuation process. Failure to satisfy this need creatively leads to impoverishment of the self and to pathological narcissism.

2) *Transcendence-creativity vs. destructiveness*: in *The Anatomy of Human Destructiveness* (1973), Fromm argues that creativity, when frustrated, can precipitate directed or random destructiveness and that creative social life arises from a continual dialectic between these polarities. Despite implicit resonance with the Freudian-Kleinian life and death drives, Fromm repudiates the latter concept as a legitimisation of 'the increasingly aggressive and destructive tendencies of the late modern age' (Elliott *op.cit.* p.44).

3) The interplay of *masculine vs. feminine* traits in creative social life: in which Fromm seeks to transcend what he sees as the patriarchal bias of Freudian psychoanalysis. He nevertheless cautions that *"feminine qualities are dangerous in modern culture since they threaten incorporation back into a 'state of nature'"* (1991 pp. 30-66).

4) *Individuation and self-identity vs. group-conformity*: a key issue among many psychohistorians (especially Stein 1985, Stein & Apprey 1987).

5) *Cognitive orientation and reasoned action vs. irrationality*: reflected in the trust on the part of much cognitive psychology in the 'innate' rationality of the human subject vs. the assertion of psychoanalysis that human action is fundamentally irrational.

Although Fromm's concept of what exactly constitutes the 'authentic self' remains unclear, his work links the psychoanalytic exploration of social relations with some central concerns in the later work of psychohistorical writers such as deMause (1982), Gruen (1992), Jacobs (1999) and Stein (1985, 1999), especially as regards the issues of childhood, power, gender identity, individuation, group process, criminality and war. Erikson originally acknowledged Fromm's influence on his own ideas of social character and identity, but the latter's failure to develop his concepts further caused his influence to decline over the years and led ultimately to his exclusion from the International Psychohistorical Association (Roazen 2001).

1.11. The ego's 'last stand' - Kohut's self-psychology.

Ego psychology's optimistic aim to adapt a drive-dominated but highly malleable self to the exigencies and imperatives of late capitalism finds its most articulate expression in the 'self-psychology' of Heinz Kohut. For Kohut, as Elliott points out, "*absorption in other people is the central means through which the self is established, the boundaries defined, its purpose articulated*" (*op.cit.* p.86). Kohut maintained that infantile grandiosity and narcissism are basic expressive stages in the evolution of infant-caregiver relations. They become pathological only to the extent that their initial goals - the eliciting of empathic response - are frustrated through failures in dyadic interaction during the 'practising period' (from 10-12 to 16-18 months - see Schore 1994 pp.23-24). Symptoms of what came to be known as 'borderline', 'schizoid', or pathologically 'narcissistic' disturbances were seen to be rooted in the emotional trauma created by 'blocked' or deformed growth trajectories arising from deficiencies in dyadic relatedness. Such trauma leaves an affective residue that the infant cannot rationalise or resolve, and which is subsequently dissociated from awareness, coming to form the 'unconscious' - an invisible psychic weight that retards or precludes further emotional maturation. Through adequate 'mirroring' - i.e. empathic support and positive appreciation - of the infant's natural drive towards creative display and self-assertion, the emergent self is progressively strengthened and rendered secure through having learnt to trust - through positive reinforcement - that such empathic support will continue to be forthcoming from the outer world in response to personal self-expression. Psychological development therefore occurs through 'transmuting internalisation' - the incorporation within evolving mental frames of both 'mirroring' and 'idealising' self-objects. The first of these embodies the empathic or appreciative response to the infant's sense of grandiosity and omnipotence, the second "*confers worth on the emerging self through an investment in the object itself*" (Elliott *op.cit.* p.87) - a fantasised self-identification that will enable and foster the creation of meaning. The fantasised interplay of both species of self-object occur in what Winnicott had termed 'transitional space', a continually-expanding realm of interaction within which successful (or inhibited) bonding between infant and outer world will eventually determine the degree of social integration achieved with the coming of maturity. So far so good. At this point, self-psychology virtually recapitulates (from a different perspective) the classical paradigm of ORT. Important differences emerged however, important enough for Kohut to be ostracised by the psychoanalytic inquisition in 1978 (Schwartz *op.cit.* p.260). The difficulty lay with Kohut's rejection of drive theory and the 'classical' psychoanalytic topography of the unconscious. In Kohut's vision, id, ego and superego are subsumed into the 'self' and the unconscious dismissed as pathological - simply a consequence of relational failure, of which drive psychology itself was considered only a special case. Kohut's heresy was compounded by his statement that significant psychoanalytic data could be reliably obtained outside the therapeutic setting. As Kohut explains, "*Self psychology can come to the defence of analysis applied outside the clinical setting by pointing out that the scrutiny of an unrolling life if viewed as the struggles of a self to realise its basic patterns can furnish data that may be as significant and as reliable as those obtained during therapeutic analysis*" (Kohut 1985 p.82).

It is therefore hardly surprising that in the era of corporate culture, self-psychology would be adopted as an ideal theoretical approach to the study of the psychodynamics of work and organisations. In the words of Czander *"Kohut, blending the theories of Winnicott, Fairbairn, Hartmann and Jacobson, presents perhaps the clearest explanation of a theory of the psychoanalysis of work. Kohut proposes a self-psychology where the self system is conceptualized as being the recipient of all relationships and the foci of all attempts to maintain relatedness, in particular, ambitions, ideals and creative acts"* (1993 p.74). In addition, Frosh, Elliott and Schwartz all concur that Kohut's lasting contribution to psychoanalytic theory lies in his exploration of narcissism and its affirmation as a necessary factor in mental growth. Kohut stresses that it is only when narcissism is unmediated by empathic interpersonal relations that it becomes the root of pathology. Many theorists have observed (e.g. Rank 1932; Lasch 1979, 1984; Kovel 1991; Giddens 1991) that it is in a time of social instability and seemingly directionless change such as late capitalism, when personal identity, community and clear boundaries are felt to dissolve, that pathological narcissism can become endemic and develop into a malignant and corrosive social force. *"In the face of the more lifeless dimensions of modernity,"* writes Elliott, *"narcissism for Kohut represents a last ditch struggle for the survival of the self"* (*op.cit.* p.89).

1.12. Reassertion of the feminist perspective.

"Historically, women have been among the most important contributors to the development of psychoanalysis" as Schwartz rightly asserts, *"but women as theorists in their own right, with a specifically female point of view, have often been treated with hostility and condescension"* (*op.cit.* pp. 246-47). The 'identity crisis' of the deconstructivist phase of psychoanalysis (1960-70) indirectly opened the door for the work of the next generation of women, giving them scope to reclaim and expand the territory staked out by Anna Freud, Melanie Klein and Karen Horney, to critically evaluate the cultural bias of Freudian analysis, to analyse more thoroughly how gender identity is constructed through socialisation, to explore and assess more positively the mother-daughter relationship and to generally extend psychoanalysis into the fields of social and political psychology. The work of Karen Horney (1967) forms the link to this second generation which includes Juliet Mitchell (1974), Dorothy Dinnerstein (1976), Nancy Chodorow (1978, 1989), Julia Kristeva (1984), Luce Irigaray (1985), Lynne Segal (1987), Jessica Benjamin (1990) and Drusilla Cornell (1992).

1.13. Developments in pre- and perinatal psychology.

Pre- and perinatal psychology developed steadily after Otto Rank's emigration to the US in 1934. Rank's main contribution to the field, *The Trauma of Birth*, published in 1923 and translated in 1929 ascribed the origins of neuroses to perinatal trauma and explored the pre- and perinatal origins of mythic structures. An ongoing collaboration between Rank and the Hungarian analyst Sándor Ferenczi during the 1920's maintained the study of pre- and perinatal psychology within the Jewish-Hungarian psychoanalytic network. There was much initial opposition to this field. Apart from social denial, repression and scotomisation of the very idea of fetal consciousness, there was the

question of access - the necessary technologies did not yet exist that could probe the morphogenetic, let alone mental, growth of the living infant *in utero*. Moreover, it would be fair to say that for a long time, despite an impressive array of clinical findings, the scientific credibility of perinatal psychology was not helped by the parapsychological and mystical bent of many birth theorists (deMause 1982 pp. 249-50). Nevertheless, the pioneering work of psychiatrists and analysts such as Mott (1948, 1964), Fodor (1949), Peerbolte (1951), Lake (1966, 1980, 1981) and Ployé (1973) increasingly testified to the traumatic residue of birth through a wealth of clinical material, while access to elements of the fetal unconscious was gained through regression therapy, dream analysis, the interpretation of sub-dominant art work, hypnosis and early experiments in LSD-induced regression during the 1950's and 60's (Lake 1966; Grof 1975; 1977). During the 1970's, Arthur Janov also published the results of his own research in *The Primal Man* (Janov & Holden 1975) - an exploration of the perinatal roots of the unexamined 'innate' anxiety lying at the base of the Kleinian construct. The International Study Group for Prenatal Psychology (ISGPP) was founded by Dr. Gustav Hans Graber in 1971. The psychoneuroendocrinological work of Fedor Freybergh was critical in establishing stronger links between psychology and medicine and the ISGPP was renamed the International Society for the Study of Pre- and Perinatal Psychology and Medicine (ISSPPM) in 1986.

A major argument against the possibility of fetal consciousness focuses on the non-myelinisation of the fetal nervous system, but experiments in the domain of memory have shown that non-myelinised neural networks are mentally active (Langworthy 1933; Verny & Kelly 1982). The theoretical substrate of fetal psychology began to coalesce rapidly during the 1980's - ch.7 of deMause's *Foundations* contains one of the most complete source lists to date for clinical, analytic and experimental studies (deMause *op.cit.* esp. notes 9-85, pp. 318-24). The First International Conference on Pre- and Perinatal Psychology was held in Toronto in 1983. Since that time the work of many researchers including Briend (1979), Buchheimer (1983), Chamberlain (1983; 1988), Ridgway (1987) and Wasdell (1980a; 1980b; 1985; 1990; 1992; 1993; 1995; 2002) have steadily elucidated the critical role of pre- and perinatal trauma in shaping human psychogenesis and cultural patterns. Independent corroboration of perinatal theory has emerged from studies in morphogenesis and ultrastructure (Thom 1989), molecular encoding (Lesec 2001) and quantum psychology (Satinover 2001).

1.14. Bifurcation patterns in psychoanalytic theory.

Tainter has pointed out that seminal concepts in a new field of knowledge are created and established by the first generation of theorists. Subsequent networks are concerned above all with adding to the edifice through the emphasis, revision, expansion or contesting of various aspects of these seminal concepts until such time as cumulative changes in perspective force a paradigm transform on the Kuhnian model (Tainter 1988 pp.112-115). This is decidedly the case with psychoanalysis, where the fundamental insights established by the 'first network' (Fig.1.1) - i.e. the period from Freud to Klein, prior to the emigration of the psychoanalytic community from Vienna (Fig.1.2 below) -

were subsequently elaborated in two antithetical directions marked out by the Anna Freud-Klein conflict.
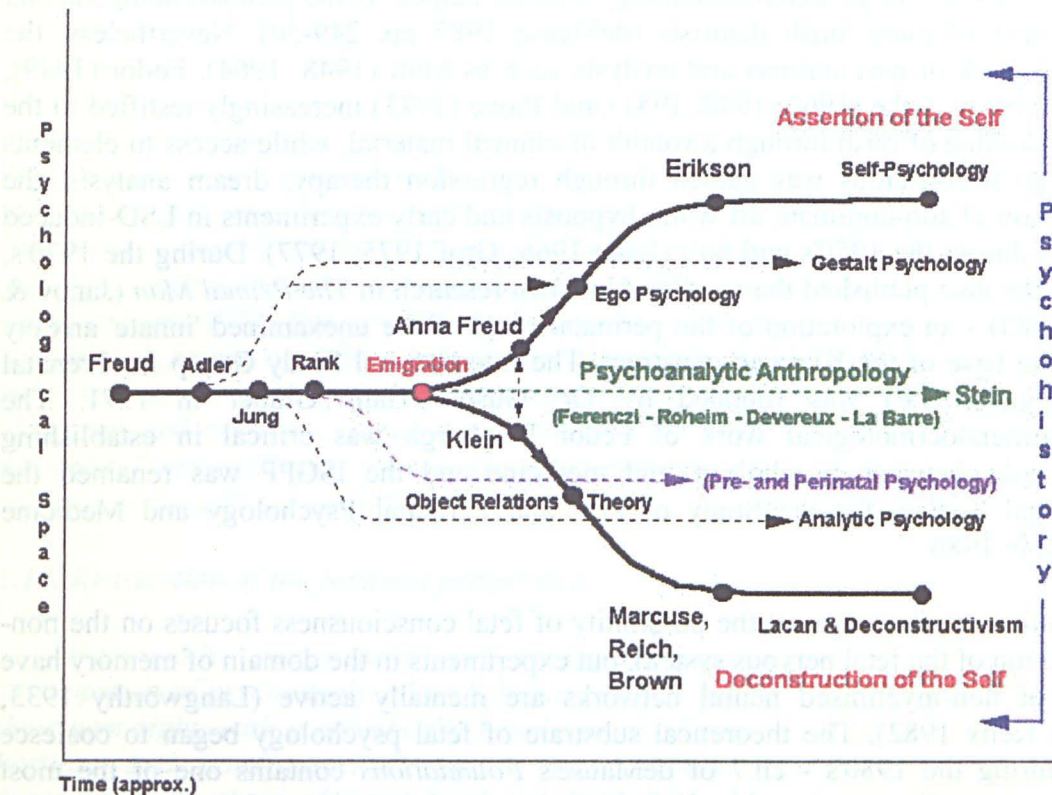
Fig.1.2: Main bifurcations in psychoanalytic theory from Freud to the present

A survey of the emphases laid upon various perspectives and the directions these emphases have taken show how psychoanalytic thought underwent bifurcation under the stresses and strains of late capitalist society (section 4 above, as well as Fig. 1.2). This bifurcation suggests schizoid 'splitting'. One direction led towards the affirmation of the self and an attempt to clearly delineate personal and social boundaries - a search for power through an ultimate merging of the self with corporate identity. The other involved the deconstruction and obliteration of the self in preparation for what was felt as the immanent chaos of late modernity and the birth of the 'counter-culture'[7]. From the pre- and perinatal perspective, the assertion of the corporate-identified ego is a symptom of regression to the foetal position prior to the onset of labour - the fantasy of self-containment within a bountiful environment with possibilities for unlimited growth

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[7] This chapter has focussed only on those aspects of psychoanalytic theory that have proved most influential among practising psychohistorians. The work of deconstructivist and postmodern analysts such Lacan, Deleuze, Guattari, Castoriadis and Lyotard, while of intrinsic value in relation to psychoanalytic theory as a whole, are considered from the psychohistorical perspective more as a symptom of the disintegration of the self under the impact of late capitalist society than as a useful, working source of theory and methodology.

(Wasdell 1992) - while the deconstructivist position expresses the rage of helpless transition and the sense of imminent disintegration experienced during the birth process itself.

In Fig.1.2 the central path - that of psychoanalytic anthropology - sought to maintain the critical force of Freud's own psychohistorical perspective and, in alliance with Kleinian theory and the study of group process, continued to weave the more critical and socially-subversive strands in the tapestry of modern psychohistory, while the strand of pre- and prenatal psychology, developing as it were 'on the side', has gained in strength towards the conclusion of the century and shows promise of contributing to the development of a more generalised 'field construct' in psychoanalysis, linking individual and group behaviour within a unified matrix of social space and time.

Chapter 2. The Emergence of Psychohistory to 1972

2.1. The Precursors of Psychohistory

Historiography is never a purely 'narrative' or 'objective process' - some kind of interpretation is always implicit in any selection and presentation of 'facts' or the assignment of motives to individuals or groups (White 1973). These interpretations serve as re-castings of collective 'screen memories' structured in terms of the value-systems, political aims or group-fantasies (and hence psychology) of dominant groups or individuals at a given moment in time. Those who would bypass these constraints and probe the psychological substrates of human motivation in search of an altogether broader and deeper understanding of the processes that underlie historical events do so at a price - they walk on the thin ice of academic reputation in seeking to challenge the 'collective imago', and in so doing destabilise culturally-acceptable modes of intrapsychic defense with respect to the past. The 'precursors' of psychohistory are therefore few in number, scattered in social space and time and mostly isolated from the dominant intellectual networks of their societies. Their work focuses less on the closed, static, 'objectivised' or *exogenous* epistemologies characteristic of traditional historiography, and moves towards process-oriented, co-evolutionary or *endogenous* thinking in which human psychological factors are given primary consideration. Precursors identified as such by modern psychohistorians such as Lawton (1988) and Szaluta (1999) as well as the present author include Heraclitus of Ephesus (fl. c.500 BC), Ibn Khaldûn (1332-1406 AD), Giambattista Vico (1668-1744 AD), Wilhelm Dilthey (1833-1911) and the so-called 'metahistorians' of the early 20th century such as Spengler, Toynbee and Sorokin. Despite the vital legacies of these precursors, *modern* psychohistory as an autonomous discipline began with the emigration of Central European *psychoanalysts* to the US. One must therefore look for the theoretical roots of the field in the foundational papers of Sigmund Freud on civilisation, society and religion.

2.2. Freud's Psychohistorical Papers.

Of Freud's total output, eight closely-related studies contain the linked working-out of ten main theses dealing with society and the individual. These encapsulate the central concerns of modern psychohistory and form the starting point of such related disciplines as psychoanalytic anthropology, ethnopsychiatry and evolutionary psychology. The papers containing these theses are: 1) *'Civilised' Sexual Morality and Modern Nervous Illness* (Freud 1908, henceforth referred to as *CSM*), 2) *Totem and Taboo* (Freud 1913, - *TT*), 3) *Thoughts for the Times on War and Death* (Freud 1915, - *TTWD*), 4) *Group Psychology and the Analysis of the Ego* (Freud 1921, - *GPE*), 5) *The Future of an Illusion* (Freud 1927, - *FI*), 6) *Civilisation and its Discontents* (Freud 1930, - *CD*), 7) *Why War?* (Freud 1933, - *WW*) and 8) *Moses and Monotheism* (Freud 1939, - *MM*). These studies, taken together, form a dense tapestry of ideas, many of which proved seminal in the work of later scholars while the ten central theses they contain form threads that are continually interwoven throughout this tapestry. Their pattern delineates the growth of Freud's deepest concerns, and material is constantly drawn from his clinical experience to support or clarify them. These ten theses are summarised below.

1) That civilisation has diversified and increased in complexity as the accumulated result of successive phases in the renunciation of instinctual satisfaction (*CSM* pp. 38-39 *et passim*, *TT* p. 114, *TTWD* pp. 69-72, *CD* 266-68, 281-87, 288-89 (footnote), 294-96 (footnote); *WW* p. 361 and *MM* pp. 177-93)[1].

2) That this process began with a primal trauma (*TT* (esp. ch. 4) pp. 145-167 *et passim*; *TTWD* pp. 81, 84; *GPE* pp. 154-56 and *MM* pp. 116-29, 148-163).

3) That the ambivalence lying at the root of this trauma became a major social and cultural dynamic (*TT* ch. 2 pp. 21-86, 108-9 and *TTWD* pp. 86-89).

4) That culture therefore arose as a shared system of intrapsychic defence against the consequences of inherited guilt and the continuing ambivalence rooted in oedipal conflicts (*TT* pp. 156-62, 176-81; *TTWD* pp. 162-63, 169, 176; *FI* pp. 190-96, 199-200, 206-11, 213; *CD* pp. 336-39 and *MM* pp. 177-93).

5) That the consequences of trauma are transmitted (and evolve) over generations (*CSM* p. 38, *TT* pp. 184-5, *CD* pp. 304, 315-26 and *MM* pp. 148-163, 197-216).

6) That the re-staging of trauma among adults occurs through group process (*GPE* entire - pp. 95-178 *passim*; *CD* p. 305 and *MM* pp. 169-176).

7) That a major vehicle of transmission is myth - and that myth is a poetic expression of an underlying psychological truth (*TT* pp. 180-1; *GPE* p. 169 and *MM* entire - *passim*).

8) That the psychological ontogeny of the individual recapitulates the phylogeny of the species (*TT* pp. 102-5, 115, 145-53; *TTWD* pp. 177-78 and *CD* 286-87, 306-7, 334-5).

9) That sex and aggression are part of a single psychic manifold (*CD* pp. 298-303, 305, 314-18, 327-333 and *WW* pp. 352-360).

10) That there are severe limitations to the possibilities for education and thus for the advance of civilisation (*FI* pp. 186-187, 229-241 and *WW* pp. 361-62).

In these eight 'protopsychohistorical' papers, Freud sought to explore the psychological roots of culture as well as the relationship of the individual to society and in doing so, to suggest appropriate questions rather than provide definitive answers. Freud's own tentative responses to these questions only served to challenge later generations of social scientists and encourage them, however localised and particular their domain of interest, to break their collective bounds of defensive caution and pursue their research beneath the overarching shadow of the core questions that underlie not only

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[1] Page references for *CSM*, *TTWD*, *GPE*, *FI*, *CD* and *WW* are taken from the Penguin Freud Library edition (vol. 12). *TT* and *MM* are separate editions (see bibliography).

the relationship of the individual to society, but also the destiny of whole cultures and, by extension, that of the species itself. These questions are implicit in Freud's writings though never explicitly stated. They can be formulated as follows:

1) Is sexuality an irreducible factor in the emergence of the self?
2) What roles do sexual dimorphism, childrearing and sociocultural bias play in determining gender identity?
3) Is individual and group aggression a primary drive (in Freudian terms)?
4) Are dominance-submission relations an inevitable concomitant of human social functioning?
5) How are the psychodynamics of power, dominance-submission relations and social status interconnected?
6) What is trauma, both individual and collective? Is trauma measurable on an absolute or relative scale?
7) Why does the behaviour of an individual change upon joining a group?
8) What is meant by the 'collective inhibition of intelligence' in groups? What kind of intelligence is inhibited, and how?
9) What relations exist between leaders and the led? How do leaderless groups function?
10) What are the differences between psychological, task-oriented, unibonded and multibonded groups?
11) Does a 'shared unconscious' exist among members of a group? How is it to be analysed, studied and understood?
12) Why does inclusion of some in a group always entail the exclusion of others?
13) What factors enable adoptive, transgenerational and task-oriented groups to survive (and for how long) in comparison to dynastic or hereditary groups?
14) How is human psychology affected by the certainty of death?
15) What is the origin and function of religion? If the word 'religion' means 'to bind together again' (re-ligere), what was originally sundered, and why, as Vico pointed out, do societies founded on atheism fail to survive?
16) What are the evolutionary origins of human sexual dimorphism, reproductive strategies, adult-child relations, culturally-enhanced gender differentiation, continual sexual arousal and above all, neoteny-induced dependence and how do these factors influence all of the above?
17) Since humans have survived and proliferated, there must originally have been adaptive advantages to what are considered now by many to be dysfunctional aspects of 'human nature'. What were these advantages?
18) What is meant by 'cultural advance'? In what 'directions', qualitative or quantitative (in social time and space) are growth or 'advance' possible? What psychological constraints, if any, limit growth in any or all hypothetical directions?

These questions are provocative in that they relate to those collective layers of the unconscious that still remain blocked. They are 'atemporal' in the sense of being continually re-emergent, demanding constant reformulation in the context of every historical era. At the same time they constitute an appeal to psychohistorians to consider

the evolutionary dimension of psychohistory and while working within specific social contexts, to relate their work to the *evolutionary history* of the psyche in the broadest sense possible. At the Freud Exhibition entitled *Conflict and Culture* held in 1999 at the Jewish Museum of New York under the auspices of the Library of Congress and the Sigmund Freud Museums of Vienna and London, the introductory brochure stated that: *"Freud's legacy continues to be hotly contested, as demonstrated by the controversy attracted by this exhibition even before its opening at the Library of Congress. Our notions of identity, memory, childhood, sexuality and, most generally, of meaning have been shaped in relation to - and often in opposition to - Freud's work"*, and, as if to suggest that Freud's maternal ambivalence may be a widespread human trait, concludes by affirming that *"although much has changed since Freud first formulated his theories, today's concern with the disruptive power of sexuality and aggression has only intensified. Freud did not propose solutions to how one might escape this violence. Instead, his writings on the connection of culture and conflict identified fundamental problems for the twentieth century - problems that show no sign of disappearing as we move into the twenty-first"*[2].

2.3. The First Phase of Modern Psychohistory - the Genesis of Psychoanalytic Anthropology.

The founders of what came to be called 'psychoanalytic anthropology' form a distinct sub-network linked by cross-citation and 'virtual' apprenticeship (Fig. 2.1). The anthropological contributions of Erik Erikson are not cited as part of this network however. Although Erikson's work on the Sioux and Yurok nations was not insignificant and was cited by both Róheim and La Barre in the context of Native American anthropology (as was that of Kroeber), Erikson's theoretical perspective remained closer to the early self-identified psychohistorical movement associated with the Wellfleet group and will be discussed in that context.

Sándor Ferenczi, a close friend and correspondent of Freud and collaborator with Otto Rank in the emergent field of pre- and perinatal psychology (ch.1.13) was a member of the Jewish-Hungarian group of analysts which included Géza Róheim and Melanie Klein. Ferenczi's work also focussed on the induction of conflicts and complexes in children through the emotional patterns transmitted *unconsciously* by their parents during the early phases of child development (Ferenczi, 1980) - an issue to be investigated in greater detail by George Devereux. Ernest Jones, the Welsh-born *doyen* of British psychoanalysis, and Freud's main biographer and first translator, wrote a series of exploratory papers on the psychoanalysis of religion, myth, palaeolithic art and folklore from 1912-1938, including one specifically titled *Psychoanalysis and Anthropology* (1924). These papers were collected and published in two volumes in 1974 under the title *Psycho-Myth and Psycho-History* (Jones 1974).

Géza Róheim, probably the first psychoanalytically-trained anthropologist, did extensive work among the Australian Aborigines, the Amerindians of N. America and Brazil and various societies of Melanesia. Róheim's work tested the relevance of Freud's

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[2] Courtesy of the Jewish Museum, New York.

theories among a number of highly different societies around the world, and exerted a strong influence on his successors - Devereux, Weston La Barre and Howard Stein. Stein refers to Róheim's 'mighty contribution' to the understanding of the purpose of culture in showing how all aspects of a culture constitute a shared system of intrapsychic defence against the anxieties associated with feelings of annihilation, body integrity, aggression, separation-individuation and castration (Stein & Apprey 1987 p.322). Róheim also demonstrated the universality of oedipal conflicts, even in ostensibly matrilineal societies (Róheim 1950 pp.151-243) and, unlike Erikson, sought to prove that 'national' character or personality is an illusory concept. Comparing the different modes of childrearing practised among Hungarian urban and rural classes as well as between different regions and even villages of Hungary, Slovakia and Transylvania, Róheim showed that social and cultural dynamics may be more fruitfully analysed in terms of childrearing modes and that these modes do not necessarily coincide with social or economic classes, or with political, racial or linguistic boundaries (Róheim *op.cit.* pp. 361-96). However, like Erikson, he does not investigate the influences of these modes on adult personality structures. Róheim also explored the psychological implications of human neoteny or foetalisation, as well as the thorny question of recapitulation (Róheim *op.cit.* pp. 428-34). Although not expressly supporting Freud's primal horde hypothesis, Róheim is highly critical of the American anthropologists Leslie A. White's wholesale rejection of it (*op.cit.* pp. 439-40). Róheim identifies six universal 'aspects of human nature' that he believes to be the consequences of neoteny-induced dependence: 1) anti-sexual attitudes, 2) the continual search for new objects (in the classical ORT sense), 3) a constant tendency towards regression, 4) emotional ambivalence, 5) immortality of the paternal *imago* and 6) innate conservatism (*op.cit.* pp. 428-34)[3].

Georges Devereux, a psychoanalyst of Transylvanian Jewish descent, forms a significant link between Róheim (of the first network) and present-day scholars such as La Barre and Stein. Devereux further explored Ferenczi's thesis concerning the transmission of unconscious emotional patterns from parents (or caregivers) to children. Emphasising the innate helplessness of infants, Devereux showed how parents project their own oedipal and cannibalistic anxieties onto their offspring, calling these projective mechanisms *counteroedipality* and *countercannibalism* (Devereux 1980 pp. 122-37, 138-47). He further develops Róheim's view of culture as a shared system of defence, showing how the boundaries between 'normal' and 'abnormal' behaviour are socially-defined, how both mental illness and criminal behaviour function as culturally-sanctioned and therefore necessary deviations - no behavioural mode can be approved and legally enforced without recognition and incorporation of its opposite, so the mentally-ill and the criminal function as 'delegate taboo violators' within a group, providing the necessary and

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[3] Nevertheless, in his discussion of the brutal and abusive nature of aboriginal, childrearing, infant cannibalism and initiation rites, Róheim betrays the baffling but typical anthropologist's intersubjective bias towards his object of study, claiming that abusive and cannibalistic mothers are nevertheless 'very good' mothers (*op.cit.* p. 62) and that infant cannibalism provokes no sibling trauma (*ibid.* p. 63, see deMause 1999 pp. 677-78). Róheim appears unaware of the traumatising function of these rites. Contradicting himself within a single paragraph ("this society is based on the solidarity of brothers and their willingness to share... on the other hand, nothing is more frequent than fights between brothers" - *ibid.* p. 63) he concludes his attempted analysis of the violent contradictions inherent in aboriginal societies by admitting "*frankly, I do not know*" (p. 150).

indispensable focus for the projection of ambivalent feelings and their attendant anxieties (*op.cit.* pp. 91-104, 148-236). Devereux also explores the 'recapitulation' issue, offering significant insights into the nature of the communication barrier between children and adults - insights that are of value in considering the vexed issue of children's' testimony in child abuse cases (*op.cit.* pp. 105-21, 155-84). Devereux created the foundations of ethnopsychiatry as a discipline and, differentiating between the *conformal* and *concordant* countertransference, elucidated the various ways in which methodologies employed in the behavioural sciences - especially those that imitate the more 'objectivised,' quantitative and exogenous methodologies of the physical sciences - are not only socially-determined, but function in themselves as modes of defence against knowing what would rather not be known, i.e. as actual techniques of scotomisation (Devereux 1967).

Weston La Barre, Professor of Anthropology at Duke University, has done extensive anthropological and psychoanalytic work among various societies in China, India, Sri Lanka, North and South America and the Caribbean. La Barre's monumental work on the psychology of religion - *The Ghost Dance: The Origins of Religion* - was first published in 1970 (La Barre 1972). La Barre was the teacher of Howard Stein, whose central contributions to psychoanalytic anthropology, family therapy, group process, cultural identity and the psychodynamics of work and organisations will receive due prominence in later chapters.

The psychoanalytic anthropological succession outlined above forms a distinct sub-current in modern psychohistorical studies. It is this 'scholarly tradition' that sought above all to confront the central issues suggested by Freud's key papers and develop methodologies appropriate for the exploration of the inner defensive purpose of culture. It did so by avoiding the controversies, complexities and defences implicit in a direct confrontation with Western culture, investigating rather those societies that remain comparatively free of western assumptions and defensive structures. This succession from Freud to Stein is shown through the brief citation analysis in Fig. 2.1.

The years prior to 1939 saw the gradual infiltration of Euroamerican culture by psychoanalytic terminology and concepts - the beginning of Juha Siltala's age of 'psychological man' (Siltala 2001). In the fields of political analysis and history, clinical findings had already been applied to the study of 'great men' and pathological 'degenerates' - the *extrema* of political or historical iconography - since the early decades of the century. Attempts to create an effective synthesis between early intuitive psychoanalytic concepts and the more rigorous traditions of historical methodology met with failure. Free association between clinical case histories and the subjective, culturally-biased icons of prominent historical figures only resulted in what Rudolph Binion has called 'psychohistory's false start' (Binion 2000).

	Freud	Jones	Ferenczi	Róheim	Devereux	La Barre	Stein
Freud	-	1	6	0	0	0	0
Jones	46	-	6	4	0	0	0
Ferenczi	127	3	-	0	0	0	0
Róheim	55	11	9	-	0	0	0
Devereux	39	0	4	9	-	0	0
La Barre	59	7	13	20	16	-	0
Stein	22	1	0	3	38	47	-

Table. 2:1: Citation Analysis within the Psychoanalytic Anthropological Succession.
This table shows the number of cross-citations among the named authors contained in those works that in this author's opinion best encapsulate their ideas and contain the largest number of cross-references. These works are: Freud (the 8 papers listed above); Ferenczi (1980 (orig. 1916)); Jones (1974); Róheim (1934 and 1950); Devereux (1980); La Barre (1970) and Stein & Apprey (1987). By 'citation' is meant a direct reference to another author's *idea* in support of a particular thesis, or direct citation of a specific work. The citations of a particular author are taken from various works of other members of the network, not necessarily from the individual sources listed above. Note how the 'skewing' of citation patterns from left to right reflects direct 'apostolic succession'.

2.4. The Role of the Holocaust in the Emergence of the Psychohistorical Movement.

The Holocaust is the defining trauma in the history of western civilisation. The catastrophic impact of the event lies in the fact that it took place in the heart of Europe and was perpetrated *by* Europeans *against* Europeans[4], an act of *autocannibalism* which demonstrated the fragility of all supposedly 'civilised' values and decisively undermined the Enlightenment 'vision' by laying bare the Janus-faced irrationality that underlies all human affairs (Stein 1994). The Holocaust was the culmination of a 31-year conflict that can be identified as the 'axial conflict' of Western Civilisation (Toynbee 1972) It became the catalyst for modern psychohistory in the sense that post-war psychohistorical writing began *explicitly to define itself as such* and can be construed as a depressive response to the trauma of European-based genocide. In addition, the emigration of prominent analysts from Europe to the US ensured that the 'cradle' of modern psychohistory (as a distinctive movement) became the American East Coast.

Prior to this emigration, attempts had been made in Europe to apply Freudian-Marxist theory to social and political phenomena through the 'Critical Theory' of the Frankfurt School which represents, in a sense, the first move towards 'institutionalised' psychohistory. The 'Frankfurt School' grew from the Institute for Social Research (Institut für Sozialforschung), founded by Max Horkheimer in 1923. Other members included the philosopher Theodore Adorno, Erich Fromm, Wilhelm Reich, Herbert Marcuse, Norman O. Brown (see below) and Jürgen Habermas, whose *Knowledge and Human Interests* (1972) and *Theory and Practice* (1974) analyse the mutation of Enlightenment reason into a system of oppression. The Institute was closed by the Nazis in 1934 and its members forced to emigrate to the US where they founded the New School of Social Research in New York. Certain faculty members of the New School,

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[4] Primarily against the Ashkenazic Jews and the Gypsies, but the memorial at Auschwitz-Birkenau commemorates 52 separate ethnic and national groups.

such as Jerry Piven, have since become closely associated with the International Psychohistorical Association (IPA).

Jacques Szaluta is therefore correct in stating that "*the first psychohistorians* (in the modern sense - author's note) *were Central European psychoanalysts, who grappled with the meaning of fascism*" (Szaluta 1999 p. 189). Louise E. Hoffman also stressed that "*psychohistory may be said to have emerged out of the psychoanalytic investigations of Adolf Hitler by his contemporaries*" (Hoffman 1982). Preliminary psychiatric and psychoanalytic explorations of the personality of Hitler, his relations with the German masses and the pathologies of anti-Semitism were first undertaken by, among others, Erikson in 1942, Fromm and De Saussure in 1943 and Walter C. Langer (the younger brother of William) in 1944. Many of these initial studies were commissioned by the Washington Office of Strategic Services (which Langer headed), the UK Ministry of Defence and the Nuremberg War Crimes Tribunal. Soon, more general characteriological studies of dictatorship and dominance-submission relations began to emerge. These included the classic studies by Ackerman and Jahoda on the pathological aspects of anti-Semitism (Ackerman & Jahoda 1950), Theodor Adorno's *The Authoritarian Personality* (Adorno *et al.*, 1950), Norman Cohn's *Pursuit of the Millennium* (Cohn 1957) and Wilhelm Reich's study of the mass psychology of fascism (Reich 1970). The discovery of such documents as the diary of the Auschwitz physician Johann Paul Kremer[5] initiated a broadening of enquiry from the direct pathologisation of prominent individuals to an investigation into how and under what circumstances pathological behaviours can manifest themselves in what 'society' would regard as 'normal' people. The fruits of this line of investigation came later however, with such studies as Browning (1998) and Lifton (2000). Only when a dimension of collective guilt could be countenanced was it possible to probe the trauma from the perspective of group process.

2.5: Main Currents in the development of psychohistory to 1972.

The publication in 1975 of *A Bibliography of Psychohistory* by Sinofsky, Fitzpatrick, Potts and deMause (deMause 1975a) allows a comparative analysis to be made of the growth of different aspects of psychohistorical research by decade from 1900-1975. Although certain serious lacunae are evident (the works of Norman Cohn, A.D. Laing and Philip Slater for example, receive no mention), the compilation is thorough enough. 1271 listed publications (books, papers and monographs) are grouped into 6 categories - 857 under the heading 'Methodology and General', 348 under 'The History of Childhood', 109 under 'Ancient', 44 under 'Medieval and Renaissance', 353 under 'Modern' and 60 under 'Asia'. In order to get a clearer perspective on the comparative evolution of fields of interest by *decade*, I have chosen to regroup all *dated* publications from this compilation under the following 8 categories:

1. Psychobiographical studies and methodology (ΨB),
2. General psychohistorical methodology (including earlier sociological analyses (ΨH)),

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[5] 'Kremers Tagebuch' in *Hefte von Auschwitz* 13 (1971), English translation in *KL Auschwitz Seen by the SS* (Fertig, New York, 1984) - also available from the Auschwitz Camp Museum. Extracts from the diary are analysed in Lifton (2000).

3. Childhood History (CH),
4. Cultural Neurosis (the treatment of any society or culture from a pathological viewpoint (CN),
5. Family Systems Theory (FS),
6. The dynamics of Dominance and Submission (DS),
7. Group Process (GP),
8. Studies on War and Aggression (WA).

The following table presents a breakdown of the number of publications in each category by decade:

	1. 1800-99	2. 1900-09	3. 1910-19	4. 1920-29	5. 1930-39	6. 1940-49	7. 1950-59	8. 1960-69	9. 1970-75
ΨB	0	0	12	17	9	15	32	90	84
ΨH	1	0	1	10	12	12	29	89	81
CH	20	6	3	20	23	21	25	60	87
CN	0	0	2	13	16	27	34	72	39
FS	1	1	6	1	2	8	9	27	49
DS	0	0	2	0	4	14	19	27	22
GP	0	0	0	2	1	15	11	15	11
WA	0	0	1	0	3	11	5	11	13

Table 2.2: Proportion of ΨH-related Publications by Decade.

It should be stressed that the figures in the first column represent all studies published during the previous century while the figures in the column 9 are for publications appearing during the *first five years* of the 70's. To enable instant visual comparison to be made of the scale of these shifts of interests and their prioritisation over time, Table 2.2 has been reproduced in graphic form as Fig.2.1 below. The dotted lines following the publication number for 1970 are extrapolations indicating the general trend towards the end of the decade. In Fig. 4.1 ΨB = PB and ΨH = PH.

It will be seen that while studies on group process, war and aggression hold fairly constant, and while dominance-submission studies show a slight rise, then fall off after 1970, other domains show increasingly nonlinear growth tendencies after 1959 - especially those on general psychohistorical theory (PH), psychobiography (PB) and childhood (CH). The trauma of the Holocaust and subsequent emigration account in part for this virtual 'explosion'. The early 50's were an incubation period, during which certain tentative studies were undertaken to explore the feasibility of applying Freudian theories to history and cultural analysis in general. These included Richard Schoenwald's 1956 paper *Historians and the Challenge of Freud* and Walter Abell's *The Collective Dream in Art* (1957).
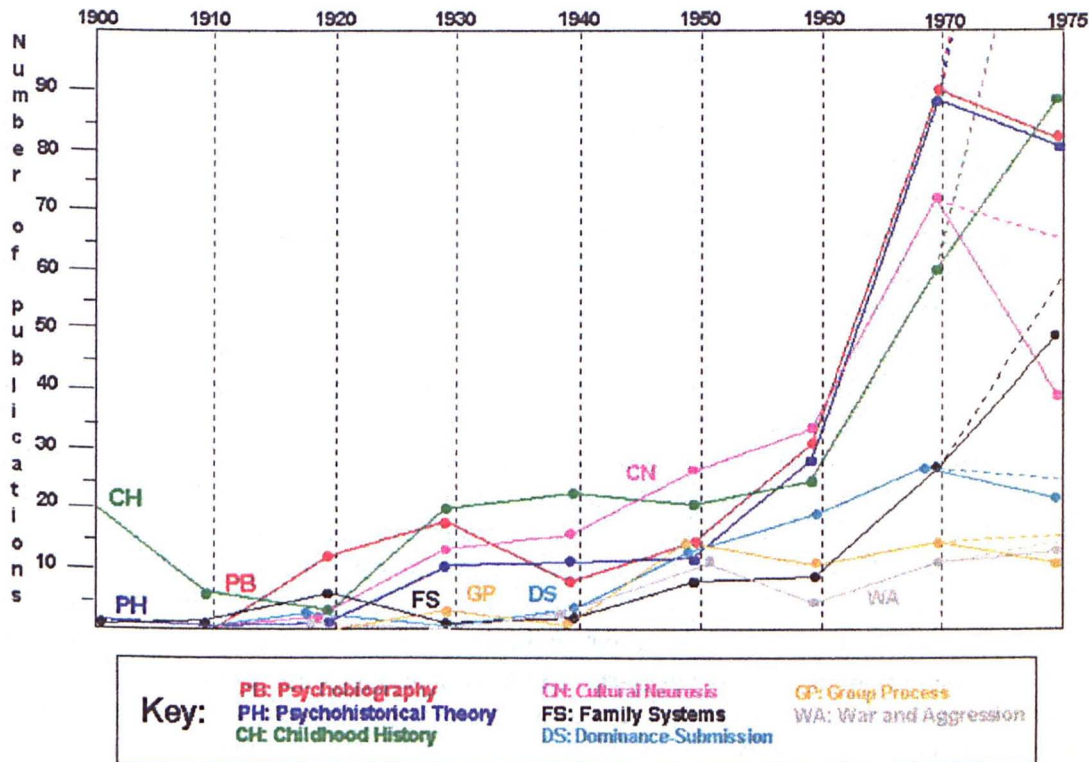
Fig.2.1: *Proportions of ΨH-related publications by decade, 1900-1975 (graphic form).*

A further catalyst was necessary however, in order to encourage historians and analysts to bridge the gap between fields and initiate the sudden surge of activity that began in the late 50's. This came in the form of William C. Langer's controversial Presidential Address to the American Historical Association in December 1957.

Attempts to apply psychoanalytic theory in seeking to interpret historical events or the unconscious motivations of historical personalities has always drawn criticism from 'professional' historians, anxious to maintain what they saw as the 'purity' of historical methodology (e.g. Barzun 1974). While some of these criticisms have been valid, others have been motivated more by a desire to guard historical turf from contamination by the potentially 'subversive' insights of psychoanalysis. Langer's speech, entitled 'The Next Assignment' (Langer 1958), was read as an attempt to dissolve the field boundaries maintained by historians and psychologists, and was perceived by both a liberation or a challenge, depending on one's point of view. Langer claimed that the historian's 'Next Assignment' was "*the urgently needed deepening of our historical understanding through exploitation of the concepts and findings of modern psychology*" by which, as Loewenberg asserts, "*he explicitly meant psychoanalysis and "dynamic" or "depth" psychology*" (Loewenberg 1996 p. 81). This statement, as Loewenberg goes on to relate, provoked much 'snide' reaction among historical conservatives, especially within the

Princeton History Department. Yet coming as it did from one of the 'patriarchs' of the historical establishment[6], it could not but provide considerable encouragement to those who were tempted to pursue this path, but who were still fearful of treading on thin academic ice. In his psychobiographical study of Langer, Loewenberg (*op.cit.* pp. 81-95) analyses the background of this 'Pauline' conversion on the part of such a supposed *éminence grise*. Loewenberg's paper is a study in shame dynamics. Langer's father died when he was two years old, and the death precipitated the family into poverty. His mother was forced to work as a dressmaker, and the shame of such a fall in social status caused her to place all hopes for the future on her sons. She was extremely demanding, a person who "*withheld all praise and approval from her boys, regardless of their achievements*", so that in consequence "*shame at failure emerges as a salient theme in Langer's boyhood*" (*op.cit.* p. 84). In later life, Langer became deeply engaged in diplomatic history. He was a great admirer of Bismarck, whom he regarded as a 'master diplomat'. Like Jung, he initially viewed the rise of National Socialism in a positive light and in 1933 he had visited an SA headquarters in north Berlin as well as Orianenburg Concentration Camp where distinguished prisoners were pointed out to him - much like the visit of Maxim Gorky to the Solovietsky Gulag after the Russian Revolution. He was still writing in 1938 that "*the hope of the future...lies in the growth of influence of the military men. Hitler has always liked the army...*" - but the 'light on the road to Damascus' came later that year when, while listening to one of Hitler's speeches, he suddenly realised how wrong he had been. This realisation was catastrophic, and the impact of the resultant shame led to a breakdown in which he found himself paralysed by stage fright whenever he found himself in a lecture situation. He entered analysis, first with Hanns Sachs, then Jenny Waelder and was able to master his trauma to a certain degree, but his views on historical methodology had changed. From then on, Langer began to distrust interpretations based on contingency and was to become increasingly concerned with the role of unconscious emotion as the prime source of motivation in history . It is to be noted that in selecting a historical example for his address, Langer avoided the numerous catastrophes of the modern period and spoke instead on the subject of the Black Death, with its "*terrible psychological impact on the survivors, who felt unconscious guilt and a fear of retribution, which apparently go back to the curbing and repression of sexual and aggressive drives in childhood and the emergence of death wishes directed against the parents*" (*ibid.* p. 82). Even allowing for Langer's orthodoxy of the newly-converted, the traumatic residue of his father's death is still evident.

Langer's address gave psychohistorians the encouragement to begin establishing psychohistory as an autonomous discipline. But before we trace this process, it is important to mention two other currents that have had an indirect bearing, if not directly on the field *per se*, at least on the attitudes of some of its later practitioners and on the issue of group-boundaries and identities in the formation of study-groups.

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[6] William L. Langer (the elder brother of Walter C.) was President of the American Historical Association, a professor at Harvard, Head of the Research and Analysis Division of the Office of Strategic Services and later, Chairman of the Board of National Estimates of the CIA. He edited a major series of studies on the history of modern Europe (Loewenberg *op.cit.* p. 83).

The first comprises a series of studies that appeared in the 50's, 60's and 70's that, while psychohistorically significant, were not directly related to any academic trend or 'movement'. Basically Marxist and 'classically' Freudian in orientation, each of these studies was influenced in some degree by the critical theory of the Frankfurt School. The common underlying theme is the neurosis affecting capitalist civilisation (following Freud 1930) and its oppressive and distorting effects on human nature. They include Herbert Marcuse's *Eros and Civilisation* (Marcuse 1955), Norman O. Brown's *Life Against Death* (Brown 1959), Eldridge Cleaver's *Soul on Ice* (Cleaver 1969), Kovel's *White Racism: A Psychohistory* (Kovel 1970), Philip Slater's *The Pursuit of Loneliness* (Slater 1970) and Reich's increasingly eccentric studies on sexuality. Both Kovel's and Cleaver's works are landmark studies in white racism from both sides of the racial boundary. Kovel's study, which includes an essay in cultural psychology, contains a deeper analysis of the various modes or levels of racism encountered in different types of society and introduces a 'prototype' of the *psychohistorical matrix* as a tool in cultural fantasy-analysis. Brown's work is a re-reading of Freud from a theological perspective and contains insights into the inner psychological meaning of Christian dogma, reinterpreting such terms as 'the resurrection of the body' and 'life everlasting' in terms of polymorphous sexuality and the timelessness inherent in Trigant Burrow's idea of 'primary identification'. Slater's study contains a perceptive analysis of the oedipal conflicts generated by western concepts of the 'nuclear' family in the context of late capitalism and the later effect of these conflicts on the emerging 'baby-boomer' generation. Marcuse and Reich both became 'prophets' of the sexual revolution. Marcuse's writings in particular truly did come to effect a transformation of both governmental and corporate social policies during the latter decades of the 20th century, but in a way neither Marcuse nor Reich had anticipated - through commercial exploitation of the 'search for the self' (Marcuse 1991). With the exception of Slater, these works tend to be anti-scientific and ultra-humanistic - a revolt against the very ethos of Western civilisation and a prefiguring of the 'occult' psychologies that expanded towards the end of the century. If, following Jüngst (2001), we were to think of industrial civilisation as 'Fordist' (i.e. engaged in mass production and progress-oriented), then the studies I have listed would be examples of a trend I would describe as 'Millerite' after Brown's citation of Henry Miller's *Sunday after the War* which predicts the end of culture and the merging of all human identities into a fluid, timeless mass (Brown *op.cit.* p.305). All this, such as it is, reflects the strivings of the 'counter-culture' in its desire to abdicate from any concept of 'civilisation', 'society' or 'progress' and return to the mythic timelessness of the Spenglerian 'proto-soul' (Lachman 2001).

The opposite trend, a highly deterministic vision of a socially-engineered, advanced 'galactic' future, came from science fiction - the publication, beginning in 1942, of a series of stories by Isaac Asimov that was eventually to coalesce in the early 50's as the *Foundation Trilogy*. Asimov's vision contained a strong appeal to conspiracy theorists and to those of an apocalyptic frame of mind, who longed for some sense of coherence amid the chaos and uncertainty of the 20th century and who hoped for some means of manipulating the future through statistical control. The *Trilogy* presents a tripartite (or 'trinitarian') scheme of the future - First Empire, Interregnum and Second Empire. Transition through the Interregnum from First to second Empire is accomplished through

the work of two foundations created by the psychohistorian Hari Seldon - a *First Foundation* of physical scientists and a *Second Foundation* comprising a secret cabal of 'psychologists' who are the co-creators and guardians of a 1000-year social engineering program known as the 'Seldon Plan'. Through the *Trilogy* and its various successors (four from Asimov, three from later *epigoni* - Benford, Bear and Brin) Asimov *popularised* the word 'psychohistory' but did not *invent* the term, which had appeared at least as early as 1922[7]. Publication of the *Trilogy* and the *epigraphia* that followed did however encourage the growth of internet study groups entirely devoted to an 'Asimovian' or 'statistical' psychohistory. 'Asimovian' psychohistory has little in common with the authentic psychohistory that derives from the work of Freud and is the main subject of this study. The 'Seldon Plan' makes no attempt to get to grips with the psychodynamics of human development, childhood history or group process. The *Trilogy* is a futuristic fantasy based in part on Gibbon's *Decline and Fall of the Roman Empire* and Toynbee's scheme of the affiliation process between successive civilisational cycles as described in *A Study of History* (Toynbee 1972). Asimov's time as a chemistry postgraduate at Columbia during the 1940's may also have brought him into contact with the writings of the mathematical biophysicist Nicolai Rashevsky, then working in Chicago, whose attempts to model history through mathematics may have encouraged Asimov to adopt him as an initial prototype for the figure of Hari Seldon. Cryptic allusions in vol.1 of the *Trilogy* to the methodology of Seldon's 'little calculus of humanity' are certainly reminiscent of ideas contained in Rashevsky's *Calculus of History* - a condensation of his earlier studies on the mathematics of human and social relations carried out in the 40's and early 50's (Rashevsky 1972). Moreover, some very generalised assumptions made in the *Trilogy* concerning the statistical behaviour of large conglomerates (assumptions derived from the Toynbee affiliation model) suggest the behaviour of 'chaotic' attractors in nonlinear dynamic systems studies (Rosser 1991 and ch. 7 below). Much acrimony has resulted over the Asimovian claim to have 'invented' psychohistory[8], but Paul Elovitz (1998) is probably correct in pointing out that Asimov did psychohistory a service by "*raising awareness*", by inspiring "*vast numbers to think about the future, and some even to learn substantive psychohistory based upon a long 20th century tradition*" (p.37). Younger readers of the Trilogy, inspired by Asimov's vision and who were either unaware of the emergence of psychoanalytically-based psychohistory or were uncomfortable with psychoanalysis, chose to become economists and attempt large scale modelling of the global economy. Much early work of this type associated with the Club of Rome grew from this generation (Slaughter 1995). The philosophical impact of the *Trilogy*, the questions it raises concerning prediction, historical sources of inspiration and manner of its creation and reception by the general public, are in themselves part of the psychohistory of our time.

It was the Wellfleet Group, created in 1965 as a result of discussions between Erikson and the psychoanalytic psychiatrist Robert Jay Lifton, that represents the first postwar attempt to establish a research project with the explicit aim of conceptualising

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[7] Clark, L. Pierce, "A Psychohistorical Study of the Epileptic Personality of the Genius", in *Psychoanalytic Review*, 1922, 9: pp. 367-401, cited in Elovitz (1998).

[8] Asimov, I. 'Psychohistory' in *Gold - The Final Science Fiction Collection*, Harper Collins Publishers, New York, 1995, pp. 185-89 - but see note 7.

the theoretical basis of psychoanalytically-based psychohistory. The project was funded for its first three years by the American Academy of Arts and Sciences (through Erikson's influence). Regular meetings took place every August at Lifton's summer house on Cape Cod. Members included Erikson, Lifton, the psychologist Kenneth Keniston, the MIT historian Bruce Mazlish, psychiatrists Robert Coles and Frederick Wyatt, sociologists Norman Birbaum (the Frankfurt 'critical theorist' of the Wellfleet group) and Philip Rieff, philosopher Stuart Hampshire (from Wadham College, Oxford), psychoanalysts Alexander and Margaret Mitscherlich and the literary historian, Peter Brooks. The emphasis was on multidisciplinarity and consilience.

Erik Erikson exerted a powerful influence on the 'first generation' of postwar psychohistorians. His contributions to psychoanalytic theory, briefly discussed in ch.1, were oriented from the beginning towards a wider social domain. As an anthropologist, Erikson was concerned with bringing psychoanalysis out of the clinical setting and extending his personal insights to cover general issues affecting the individual and society, especially the issue of identity formation and its evolution in the broader social context. Erikson's contributions to psychohistorical theory are contained in his main publications, which include *Childhood and Society* (1950a), 'The Problem of Ego Identity' (1956), *Young Man Luther: A Study in Psychoanalysis and History* (1958), 'The Nature of Clinical Evidence' (1959), *Insight and Responsibility* (1964), *Gandhi's Truth: On the Origins of Militant Nonviolence* (1969) and 'On the Nature of Psychohistorical Evidence: In Search of Gandhi' (1974). Erikson, as has been noted, stressed the varying abilities of the ego to maintain a stable identity configuration both in response to the shifting exigencies of successive phases in the life-span and in adaption to a specific social and historical context. His famous (some would say notorious) 'Eight Stages of Man' - were first formulated for a White House conference in 1950 and later published in *Childhood and Society*. They arose through Erikson's efforts to translate anthropological observation in the field (among the Sioux and Yurok) into general principles of character analysis, and provided the basic epigenetic chart of development for all later psychobiographical work. Departing from the schema of classical Freudian analysis, they represent the types of conflict encountered by an individual at different phases of the life-span. These stages, and their significance as expressed in *Childhood and Society*, are briefly summarised as follows:

1) *Basic Trust vs. Mistrust (infancy):* 'basic trust' is developed through a preponderance of positive experiences during the initial dyadic relationship with the caregiver. Failure of trust may lead to depressive and schizoid states and to the defense mechanism of projection.

2) *Autonomy vs. Shame and Doubt* (the 'practising period' (Schore 1994) from 1-3 years): this is the Eriksonian analogue of the first stage of the oedipal conflict, when the child must deal with the issues of self-control and the challenge of socialisation. If the child emerges from this period crippled by feelings of shame, it will be difficult to develop a sense of justice and personal autonomy in later life.

3) *Initiative vs. Guilt* (preschool - from c. 3-5 years): the phase of oedipal resolution and development of a sense of personal motivation through

encouragement to explore. Parental support is crucial in the building of confidence. During this first socialisation phase, Erikson maintains, archetypal figures from picture books and fairy tales become incarnate as adults with whom the child seeks to identify - a translation from fantasy to the possibilities afforded by reality.

4) *Industry vs. Inferiority* (the 'latency period' from school age to puberty): the second phase of socialisation during which the child is inducted into the dominant memetic constructs of society through the school 'microculture', where roles and attitudes inculcated within the family become projected onto wider social groups. During this crucial phase, the child acquires a 'sense of industry' and learns how to translate motivation into accomplishment.

5) *Identity vs. Role Confusion* (adolescence and early adulthood): a key phase during which any unresolved residue of the oedipal conflict will re-emerge, bringing the individual to an identity crisis, as regards both sense of self and wider social role. Resolution of this crisis signifies the maturation of the individual's personal philosophy of life and transition into true adulthood

6) *Intimacy vs. Isolation* (young adulthood): the phase of integration into the dominant culture where the individual learns effectively to combine the exigencies of interpersonal relationships and social demands - as Erikson (and Freud) put it: *lieben und arbeiten*. This, as Erikson stresses, is "integral to a cultures' style of sexual selection, co-operation) and competition" (Erikson 1963 p.266).

7) *Generativity vs. Stagnation* (middle age): the phase of the 'teacher' or 'elder' - most clearly derived from the prescriptives of Siouan society. During this phase, the individual must realise his/her maximum creative potential in order to facilitate cultural transmission to younger generations.

8) *Ego Integrity vs. Despair* (post-60's to old age): a final phase during which the individual must successfully come to terms with the triumphs and disappointments of a lifetime. Failure in this endeavour will expose the individual to personal fragmentation, fear of death and despair.

This overall scheme has been criticised, particularly by Lifton and Schoenwald, on two counts, a) as being overly prescriptive in terms of mid 20th-century middle class Fordist values and b) by extension, scarcely translatable to other societies or historical epochs. Certainly this sequence of phases would appear to have originated in the subjective experiences and moods of Erikson's own life and his own highly successful relationship within his particular social milieu. Be that as it may, the derivation of theory from personal introspection has always been a psychoanalytic trait, and is consistent with Erikson's strong appeal for what he calls 'disciplined subjectivity' in psychohistorical research (Erikson 1964; Strozier 1976). This should include, as Erikson maintains, a sufficient degree of self-awareness for the psychohistorian to detect personal bias and emotional response in dealing with historical sources, and even to utilise such reactions as an aid to understanding[9].

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[9] The use of empathy as a methodological tool was to be developed and refined further by Georges Devereux in his study of transference and countertransference at the 'partition interface' between

From this perspective, it can be understood why *Young Man Luther* became such an influential work and remained for so long the 'metaparadigm' of psychobiography. In this work, Erikson was anxious to 'depathologise' psychobiography and to show how psychic conflict in an individual could be resolved in a manner that proved beneficial to society at large - in Luther's case, his private pathology was also that of his own social time and place, so that in resolving his own identity crises, he also solved those of the many, *"solving for all what he could not solve for himself alone"* (Erikson 1958 p. 67; Szaluta 1999 pp. 91-8). In like manner, Mahatma Gandhi sought to transcend the constraints imposed by his own inner conflicts and in so doing, through sharing these constraints with others and demonstrating his own mode of transcendence, was able to advance human awareness as a whole (Erikson 1969 p. 99). Even in his 1942 study of Hitler (revise, expanded and included as a chapter in *Childhood and Society*), Erikson scrupulously avoided any tendency to 'demonise', suggesting that despite Hitler's 'hazardous borderline traits' and an adolescence filled with pent-up rage due to an inability to realise his potentialities, certain capacities were evident in his character structure that could have been realised far more positively given a different historical situation.

Erikson was a key figure in psychohistory, not least because he did so much to realise and consolidate Langer's appeal and demonstrate, through his own efforts and by the inspiration and encouragement of others, the feasibility of psychohistory as an autonomous discipline. His legacy is permanent. If Boltzmann's Constant is Boltzmann's epitaph, then in this author's opinion, Erikson's psychohistorical epitaph might read: *each age and society seeks to create for itself the type of character and personality best suited to it.*

It was both Langer's address and the publication of *Young Man Luther* that drew Bruce Mazlish to psychohistory. An intellectual historian at MIT since 1950, he is considered to be the first academic historian to give serious investigation to the relationship between history and psychoanalysis. After hearing Langer's address in 1957, Mazlish avidly studied *Young Man Luther* and was invited to attend Erikson's graduate seminars at Harvard the following year. Mazlish describes the impact of Erikson and the whole concept of psychohistory on him as 'immense' (Mazlish 1988 intro p. xviii) and in 1958, decided to enter personal analysis. *Psychoanalysis and History*, published in 1963, later claimed as the first work devoted to psychohistorical theory, was rather an essay in intellectual history that traced the psychoanalytic threads that were beginning to proliferate in historical writing since the time of Freud, and converge on the suggestion that Western culture was neurotic. Despite this, Mazlish was cautious about the idea of 'putting the world on the couch'. He was aware of the temptation of many psychoanalysts (and psychohistorians) who, in diagnosing Western civilisation as 'pathological' were quick to recommend their own personal (or group) psychoanalytic theories as the only valid cure - a temptation that shows no sign of abating. In 1964 Mazlish created and ran the first university-level course in psychohistory, entitled, appropriately enough,

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psychohistorian and subject matter (Devereux 1967). The problem of how bias can be accessed and studied will be discussed more fully in ch. 9.

'Psychoanalysis and History', then went on to set up the *Group for Applied Psychoanalysis* (GAP) - the first of a series of study and discussion groups involving psychiatrists, analysts and sociologists that sprang up near and around the eastern seaboard. No papers were ever published by these groups, but the network was later to evolve into the *Group for the Use of Psychology in History* (GUPH), founded by Charles Strozier and Richard Schoenwald (see ch. 3).

With the publication in 1968 of his major theoretical paper on psychohistory 'Prolegomena to Psychohistory' (Mazlish 1990 pp. 127-38), Mazlish outlined his main critique of psychohistorical work that had appeared to date, listing both weaknesses and strengths. His chief concerns about then-current methodologies included a) over-enthusiastic extrapolation from written sources, leading to false interpretations, b) the overly-convenient classification of historical figures into 'personality types' (Adorno and Fromm come to mind here), c) psychological reductionism (citing Freud and Bullitt's study of Woodrow Wilson as an example (Freud & Bullitt 1967)), d) problems in the validation or verification of analyses of historical figures and e) in general, difficulties in translation from the individual plane to the social. Nevertheless, Mazlish remained decidedly positive about the future, stressing that psychohistory, in probing the deepest sources of personal motivation and interaction within a variety of historical contexts, could cast light on a hitherto 'concealed' dimension of human evolution that would complement (not replace) other methods of interpretation practised within the human sciences. At the Wellfleet meetings, Mazlish indicated the potentialities of social psychology and evolutionary biology for expanding the psychohistorical paradigm beyond its psychoanalytic base, and in later years, has returned to broader questions of intellectual history, including humanity's relation to artificial intelligence (*The Fourth Discontinuity* - Mazlish 1993a) and global history in general (*Conceptualizing Global History* - Mazlish 1993b). In so doing he is not, as some would have it, 'abandoning' psychohistory, but rather answering Langer's original challenge to expand the metaparadigm even to 'cosmic' scales, and reacting against the sense of psychoanalytic closure, group timidity and divisiveness that today more than ever threaten the field with extinction.

Robert Jay Lifton met Erikson in 1956, having previously read *Childhood and Society* and *The Problem of Ego Identity*. Lifton had graduated from medical school in 1948 and completed psychoanalytic training at the (psychoanalytically conservative) Boston Institute. He later went on to become Director of the 'Center on Violence and Human Survival' at the John Jay College of Criminal Justice. He was concerned above all with shifting the focus of early psychohistory away from its increasing preoccupation with the Euroamerican past and with 'personalities' and towards the study of global contemporary crises and catastrophes, including the traumatic experiences and dislocation of larger groups - whether perpetrators or survivors - and the general impact of totalitarianism on populations. Lifton was also deeply concerned with questions of psychoanalytic orthodoxy. In his investigation of Chinese 'thought reform' at Harvard (Lifton 1961), Lifton compared the group dominance-submission dynamics employed in totalitarian 're-education' with methods of 'thought control' employed by the 'psychoanalytic inquisition' to enforce orthodoxy in psychoanalytic institutes, believing that such methods betrayed

the fundamentally subversive power of psychoanalysis. Lifton's major studies include *Thought Reform and the Psychology of Totalism* (Lifton 1961), *Death in Life: The Survivors of Hiroshima* (Lifton 1967), *Revolutionary Immortality: Mao Tse-Tung and the Chinese Cultural Revolution* (Lifton 1968), *History and Human Survival: Essays on the Young and Old, Survivors and the Dead, Peace and War, and on Contemporary Psychohistory* (Lifton 1970) as well as key essays included in *The Wellfleet Papers*. His latest work is an analysis of Nazi medial genocide: *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (Lifton 2000).

Lifton developed a particular interviewing technique, different from both the 'pathologising' psychoanalytic consultation and the more 'weighted' techniques of Q-psychology. In encountering his subjects he sought, through free and empathic dialogue, to implement a 'shared exploration of experience' which contained elements of a 'psychotherapeutic healing spirit' (Lifton 1970 p. 8, 2000 pp. 6-14). Further discussion of these methodologies is reserved for ch. 9 of the present study. Lifton's experience with survivors gave him a deeper perspective on the psychology of death and the desire for immortality. He identified fear of death and the quest for symbolic immortality as key factors determining human motivation in life (*The Wellfleet Papers* pp. 271-287) and maintained that the symbolic sense of anticipated immortality can be expressed in five modes: a) *biologically*, in the sense of living on through and in one's descendants, b) *theologically*, through the translation of individual life from a lower or more profane level to a higher, c) *creatively*, in the sense of 'living on' through one's life work, whether artistic or scientific, d) *pantheistically*, through re-absorption into the processes of nature (a significant element in Far Eastern philosophies and the pagan religions of Europe) and e) *cosmically*, through mystic, experiential transcendence. Lifton points out that *"[F]ollowing the Holocaust of World War II the viability of psychic activity within (these) modes has undergone something of a collapse, at least in the West"* (*The Wellfleet Papers* p. 278). Given the contemporary destabilisation of family relations, the collapse of religious belief, the sensed futility of intellectual or creative action, environmental destruction and the global commercialisation of 'enlightenment', Lifton traces the sources of contemporary angst, at least in the West, to modal failure in each instance. In Lifton's view, the 'canvas of the Future' on which we 'paint our desires' would appear to lie in tatters.

Lifton is generally believed to have made the greatest contribution to the Wellfleet goal of conceptualising psychohistory. Yet this goal was never realised within the group as a whole, despite funding from the AAAS, publication of *The Wellfleet Papers* (which remains the only core Wellfleet document) and the fact that the meetings continue to this day (*The Wellfleet Papers* was the first and last publication). A group of academics taking their summer vacation together in pleasant surroundings simply could not evolve an atmosphere conducive to highly-motivated and critical engagement with the more sombre issues of the world outside. During the summer meetings there was much 'stimulating' discussion, politicisation, general moralising and agonising over ethics and theoretical perspectives, but no sense of urgency, no real effort to get to grips with realities that impinged more on the less fortunate outside than on the 'charmed circle' within. One senses that under such conditions the 'psychological group' easily came to

dominate the 'task-oriented'. It is worth comparing the Wellfleet effort with that of Cassiodorus and his associates at Vivarium during the 6th century (O'Donnell 1979) The participants at Wellfleet, like the senators of Vivarium, were too closely bound to comfort, social class and privilege truly to appreciate the urgency of their mandate. The Frankfurt School, having evolved in the midst of daily political strife and the impending catastrophe of the Nazi régime, finally suffered physical destruction. The surviving members however, safely ensconced in the womb of American life, could not recover the former sense of urgency and commitment they had experienced in totalitarian Europe.

2.6. Summary.

Psychohistory emerged as an autonomous field over the course of the 20th century due to a number of convergent factors:

1) The catalytic impact of the global historical events of the 20th century, especially the 'axial conflict' (WW I-II), culminating in the Holocaust and the rise of genocidal, totalitarian régimes on an unprecedented scale.

2) The rise to power of psychoanalysis as a substitute for religion in explaining the 'human condition', its reception and powerful influence in the media, the arts, popular culture, politics and business (the work of Edward Bernays, Erikson and Marcuse). Most psychoanalysts were of Jewish origin, for whom psychoanalysis became the substitute for a religion that had failed them, and thus a new symbol of collective identity.

3) Psychoanalysis was perceived by historically-minded scholars as having greater explanatory power over neo-behaviourist or humanistic psychology due to its implicit historicism.

4) The intellectually-dislocating events of the 20th century encouraged historical scholarship to be more receptive to new ideas - especially those affording deeper, more 'global' modes of interpretation.

5) Modern 'avatars' of psychohistory tended to come from diverse and traumatised backgrounds, were prone to interdisciplinary research and were not bound within the constraints of any single field.

Modern psychohistory emerged within the first psychoanalytic network in response to the challenges presented both by the implications of psychoanalytic theory and by Freud's early papers. Those analysts engaged in anthropology first took up the challenge through fieldwork in non-western societies, while those of a Marxist bent, more committed to and engaged in, political and social conflict, sought to institutionalise the synthesis of psychoanalysis and history through developing the 'Critical Theory' of the Frankfurt School. The Holocaust was a watershed, through both its traumatic impact and the destruction and dislocation it brought to Europe's Jewish communities. The emigration of Central and Eastern European intellectuals to the United States ensured that the East Coast became the 'cradle' of modern psychohistory. Some émigrés, challenged by the personal experience of Apocalypse, sought to confront, understand and interpret this experience through the application of psychoanalytic theory to recent historical events and, by extension, to the deeper past. The early writings of Erik Erikson and

William Langer's 1957 address to the American Historical Association greatly encouraged scholars to attempt the challenge of crossing disciplines, leading to a virtual 'explosion' in published psychohistorical studies, beginning in the late 50's. Some of these studies were by independent scholars of Marxist orientation concerned about the psychologically crippling effects of Fordist culture. The popularisation of psychohistory through the *Foundation Trilogy* of Isaac Asimov stimulated a general, if confused, interest in the field, and inspired a generation of future economists and global modellers later associated with the Club of Rome. At the same time this event prompted those serious about the psychoanalytic basis of the discipline to seek a more definite conceptualisation of psychoanalytic theory and to develop a working metaparadigm. After the creation of a preliminary series of discussion groups by Mazlish, the Wellfleet Group was established by Erikson, Lifton and Mazlish in 1965. Consensus eluded the participants however - institutionalisation of the field was premature given the great diversity of interests, both within the Group and without. Various groups arose after 1972 with the aim of exploiting this diversity and allowing a forum for scholars to exchange ideas and publish, without explicitly seeking consensus or the creation of a metaparadigm. The most prominent and long-lasting of these were the Group for the Use of Psychology in History (GUPH) and the International Psychohistorical Association (IPA). It is this second phase, that of consolidation and expansion, that will form the subject of the next chapter. Meanwhile at this point, it would be appropriate to conclude by offering a graphic synopsis showing the emergence of both psychoanalysis and psychohistory within the generalised context of 20th century history (Fig. 2.2 below):
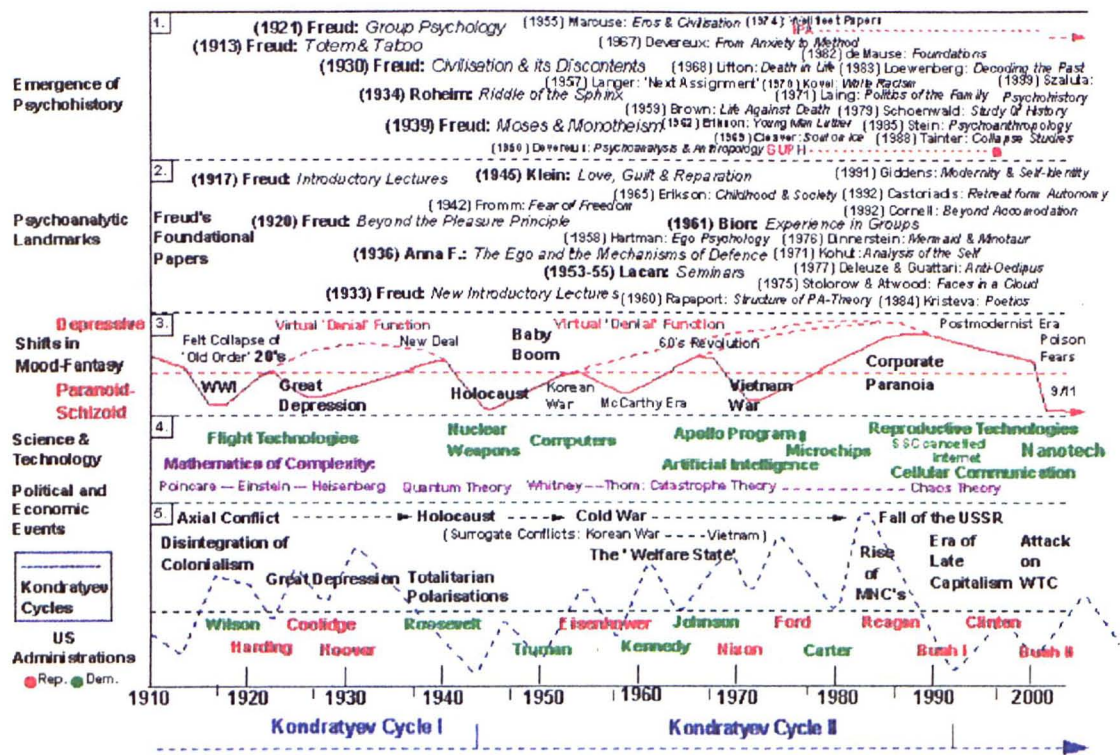
Fig. 2:2: Co-evolution of Psychoanalysis, Psychohistory and Euroamerican Civilisation during the 20th century.

Key to Fig. 2.2

Level 1: *The Emergence of Psychohistory;* some (not all) key works are shown - the selection is intended to convey the confluent (interdisciplinary) nature of the field's emergence.

Level 2: *Psychoanalytic landmarks;* the selection intended to convey the growing diversity of psychoanalytic theory (cf. Fig. 3.1).

Level 3: *Shifts in Mood-Fantasy;* combining Klein's (1988a) theory of depressive-paranoid fluctuation with Williams' (1999) model of crisis and transition, a simple approximate function is shown for the general evolution of mood-fantasy, mostly for the United States and Europe. As crises tended to succeed one another and become cumulative over the course of the century, the function is in fact much more complex, since many groups are involved. The 'virtual denial function' (......) indicates a 'wished-for' avoidance while the 'reality function' is shown as a solid line (—). Both converge towards the end of the century.

Level 4: *Science and Technology:* the expansion of 'Big Science' and the tendency to 'strive outward' is curtailed after the conclusion of the Apollo program and the cancellation of the Superconducting Supercollider (SSC). Thereafter, science turns 'inward' and tends to become more openly allied with corporate interests. Mathematics tends towards the exploration of relativity, uncertainty and chaos.

Level 5: *Political and Economic Events:* showing main political and economic events and the succession of US Presidencies against the background of identified Kondratyev (long-wave) cycles of economic growth and recession. The 52-year Kondratyev cycles shown here include the effects of the three primary subcycles identified to date: the Kitchin (18 month-4 year-), Juglar (7-10 year-) and Kuznets (18 year-) cycles (Solomou 1987, Van Duijn 1983, Reijnders 1990 and Tylecote 1992).

Chapter 3. Consolidation and Expansion: 1972 to the Present Day

3.1. The expansion of study groups and networks.

1972 was a pivotal year in the development of psychohistory for two reasons: the formal recognition of psychohistory as an independent discipline by the American Association for the Advancement of Science (AAAS), and the formation of the *Group for the Use of Psychology in History* (GUPH), the first of a series of long-lived study groups that would remain active and continue to influence the development of the field until the beginning of the 21st century. In other words, after the heady intoxication generated by Langer and Erikson had led to a virtual explosion of highly diverse studies during the 50's and 60's, 1972 saw the beginning of the *institutionalisation* of the field. In many ways, the remainder of the century is the story of the usual catalogue of problems institutionalisation all too often brings.

The recognition of psychohistory as an independent field on the part of the AAAS occurred at the Annual AAAS Convention on Saturday, December 31st 1972 in Washington DC. The symposium was convened by Herman Serota of the Chicago Institute for Psychoanalysis and chaired by Albert Solnit of the Yale Child Study Centre. The title of the symposium was *Psychohistory: A Psychoanalytic Study*. The first half consisted of psychobiographical papers on Schliemann (given by William Niederland, who at the time was Clinical Professor of Psychiatry at SUNY) and on Newton (given by Serota). The two afternoon sessions involved two presentations entitled *Methodological Problems in the Study of Psychohistory* (given by Albert Solnit and David Musto, Assistant Professor at the Department of History, Yale University) and *The Psychoanalytic Contribution to the Study of Biography and History* (given by Bernard Meyer, Clinical Professor of Psychiatry at Mt. Sinai School of Medicine). The symposium concluded with a discussion at which it was resolved that *"the mutual interests of psychoanalysis and history are also associated with methodological issues of vital importance to both fields. Applied psychoanalytic studies of Schliemann and Newton will be used to highlight several illuminating questions about the sources of, and obstacles to, their scientific productivity. Biographical data subject to the influence and distortions of the cultural and historical interpretations of a given era can be clarified further by psychoanalytic insights into archival data"*[1]. This event would appear to have been a 'one-off shot' - there being no further records of psychohistory being discussed at AAAS Conventions, but the increasing association of GUPH in subsequent years with the Chicago Institute for Psychoanalysis as mentioned by Lawton (1988 p.8) may hint at Serota as the root of the connection.

In the meantime, a number of participants at the AHA Convention of 1971 had declared that *"there was a wide and deep interest in psychohistory, but no way for interested scholars to maintain contact"* (*ibid.* p.7). Evidently by this time, the Wellfleet Group had turned into an exclusive summer camp for academics. Apart from the *Wellfleet Papers* (Lifton & Olson 1974), no regular publications appeared, neither did the

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[1] Information on the proceedings of this symposium was obtained by the present author from the AAAS archives in 2001.

group seek to expand beyond Cape Cod. Lawton mentions that an LA study group had existed 'since the late 1960's', that other groups were active by this time in Buffalo, Cambridge (Mass.) and Topeka and that the Chicago-based *Centre for Psychosocial Studies* (still in existence and publishing regularly) was created in 1973 (*op.cit.* p.9). It was in direct response to the AHA's concern however, that GUPH was founded in 1972 by Charles Strozier, Patrick Dunn, John Fitzpatrick and Richard Schoenwald, first chairperson of the group. GUPH's original mandate was "*to bring together scholars interested in studying history psychologically*" (*ibid.* pp. 7-8). This changed slightly in later years to the mandate appearing on the AHA website in 2001: "*to bring together those interested in the creative integration of history and psychology*"[2]. Lawton relates how Schoenwald was replaced as Chairperson in 1973 by James McRandle, "*whose interest in ethology might provide a counterweight to the group's somewhat over-reliance on psychoanalytic concepts and biographical material*"[3]. Randle was apparently replaced in 1974 by Fred Weinstein and his name seems to have disappeared from the group's official history (*ibid.* p.29 note 28). GUPH's first publication was the *Newsletter*, the name of which was changed in 1976 to the *Psychohistory Review* (*PR*). In this year, GUPH became officially affiliated to the AHA and sponsored its first independent conference at Stockton State College, New Jersey. A second conference was held the following year at Adelphi University (*ibid.* p.8), but since that time, according to the last AHA website containing any mention of the group (2001), GUPH's conference activities appear to have been re-assimilated within those of the AHA and Strozier has remained firmly in charge. Lawton relates how GUPH became more and more involved with the Chicago Institute for Psychoanalysis over the years (see above) through a connection with George Pollack, and came increasingly to favour Kohutian ego psychology as its core paradigm (*ibid.*). Lawton identifies other 'heavies' within GUPH (apart from Strozier) as Fred Weinstein, John Demos and Bruce Mazlish (Lawton 1983 p. 163) and relates how they nominated David Stannard - a vociferous critic of psychohistory's aim to become an autonomous discipline - as the group's 'bulldog'. He further notes how one of GUPH'S members, Peter Hoffer, has actually gone so far as to propose an 'academic psychohistory' that totally rejects the use of psychoanalysis (1988 p.10). In sum therefore, GUPH chose to remain within the ivory tower of the AHA, practising a safe and controlled species of psychohistory which sparingly appeals to what the group perceive and interpret as the 'received paradigms' of academic psychology and *PR* is an academic, peer-reviewed journal, its papers cautious and guarded in style. GUPH has not expanded its activities in any way and rumours of its demise have become more frequent. The last accessible edition of *PR* is that of 1999 while the last page revision of the AHA website including GUPH as an affiliate is from 2001. GUPH itself is now inaccessible and appears to have finally 'rolled up the curtain'.

Already in 1968, Lloyd deMause had proposed a 5-year research project to an organisation calling itself the *Association for Applied Psychoanalysis* - a group composed of "*psychoanalysts, social scientists, lawyers and other professional persons who felt the need for an organisation that would encourage the direct application of psychoanalytic*

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[2] On this website GUPH now claims it originated in 1971, clearly identifying its foundation with the AHA Convention of that year.
[3] GUPH *Newsletter*, Vol.1 no.6 (Jan. 1973) cited in Lawton (*op.cit.*) p.29 note 27.

Principles and techniques to other disciplines and to various problem areas" (*ibid.* p.30 n.34). This project was to investigate what deMause initially called 'psychogeneology', which he defined as *"the science of evolution of parent-child relations as the basic cause of the evolution of man's personality"* (*ibid.* pp.8-9). The project was interdisciplinary, and culminated in the publication of *The History of Childhood* in 1974 (deMause 1976). Edited by deMause and described by Lawton as a 'ground-breaking book', it contains a forward by William L. Langer and a series of well-evidenced and documented papers by ten scholars (including deMause) on the perception and experience of childhood from the Late Roman Empire to 19th century Europe and America. As the book was in the final stages of preparation, deMause launched the *History of Childhood Quarterly* (*HCQ*) in summer 1973. Reviews were mixed. Clifford Griffin described *HCQ* as a 'kingdom divided against itself' due to disagreements among contributors as to what psychohistory exactly is[4]. In 1976 *HCQ* became the *Journal of Psychohistory* (*JOP*), a name it has retained to the present. In 1975, deMause officially founded the *Institute for Psychohistory* and by 1977 had established *the International Psychohistorical Association* (IPA) as its international affiliate responsible for conducting and co-ordinating the annual conventions which have been held regularly up to the present time. The IPA began publishing another bulletin in 1977 entitled *Psychohistory* which was absorbed into the *JOP* in 1981 (*ibid.* p.10), but another bulletin, the *Newsletter*, has remained a separate publication to the present day. In 1979, deMause turned over editorship of *JOP* to David Beisel but reassumed the function in 1987 - a process of 'withdrawal and return' on deMause's part that would be repeated several times in later years. The *JOP* later incorporated another journal - the *Journal of Psychoanalytic Anthropology* - in 1988 (*ibid.* p.12).

By 1988 a number of study groups or branches affiliated with the IPA had been firmly established. These included the Washington D.C., Midwest (Oklahoma), Rocky Mountain (Colorado) and LA branches in the US, and the British, French, German and Swiss branches abroad. In later years, further branches were established in Argentina, Australia, Austria, Brazil, Canada, Finland, Italy, Mexico, New Zealand, Poland, Romania, Russia and Slovenia. These branches are fully independent, in no way under direct control of the IPA, but in consequence of this, relationships with the IPA are often strained. Directorship of the branches established prior to 1988 have since shifted, but Howard Stein continues to direct the Oklahoma branch while Robert McFarland continues with the Colorado branch, having set up a network of parenting centres in the US and elsewhere - the first example within the IPA of direct engagement with and psychohistorical *praxis* within, the wider society (Linden & McFarland 1993). While the earlier network has persisted and matured, not all of these later branches continue to be active at present. In 1982 the *Psychohistory Forum* (PF) was set up by Paul Elovitz, the aim of which was to establish *"an ongoing group where scholars could present work in progress when the Institute for Psychohistory changed emphasis to more finished presentations"* (Lawton *op.cit.* p.16). Since 1994 PF regularly publishes Clio's Psyche (*CP*), a periodical with a simpler, more journalistic format than that of *PR* or *JOP*. The editorial board includes a diverse range of scholars, including David Beisel from SUNY, Rudolph Binion from Brandeis, Andrew Brink from the University of Toronto, Canada,

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[4] *Reviews in American History* Vol.4 no.3 (Sept. 1976) p. 305, cited in Lawton (1988) p. 30 n. 38.

George Kren from Kansas State and Peter Loewenberg from UCLA. *CP* therefore publishes contributions from scholars affiliated with GUPH, the IPA or without any direct affiliation, with perspectives frequently drawn from the wider fields of psychology, history and the social sciences in general, The PF itself, while participating regularly at IPA conventions has successfully established itself as an independent bridge or 'nexus' free of any group partisanship and continues to hold regular meetings wherever possible. Two other subgroups developed within the IPA, the *Group for the Psychohistorical Study of Film* (GPSF) set up by Henry Lawton which runs sessions during the annual conventions and regularly publishes reports in the IPA *Newsletter*, and the *Centre for Psychohistorical Studies* (CPS), set up by Jerrold Atlas of Long Island University. The CPS grew out of the annual European conferences later arranged by Atlas in Amsterdam, Nuremberg and Vichy. Other external groups, foundations or institutes have flirted with the IPA from time to time without forming any lasting relationships. One of the most significant is the *Meridian Programme* of which David Wasdell became the International Co-ordinator in 1987. Currently hosted by the *Unit for Research into Changing Institutions* (URCHIN) which Wasdell also directs, the Meridian Programme originally grew out of the *Manhattan Project for the Behavioural Sciences* and is at present widely engaged in the fields of organisational consultancy and group process. The genesis of this programme is fully described in Wasdell (2004). Wasdell co-operates closely with members of the German branch (such as Ludwig Janus) and others engaged in issues relating to the pre- and perinatal origin of individual and group defences.
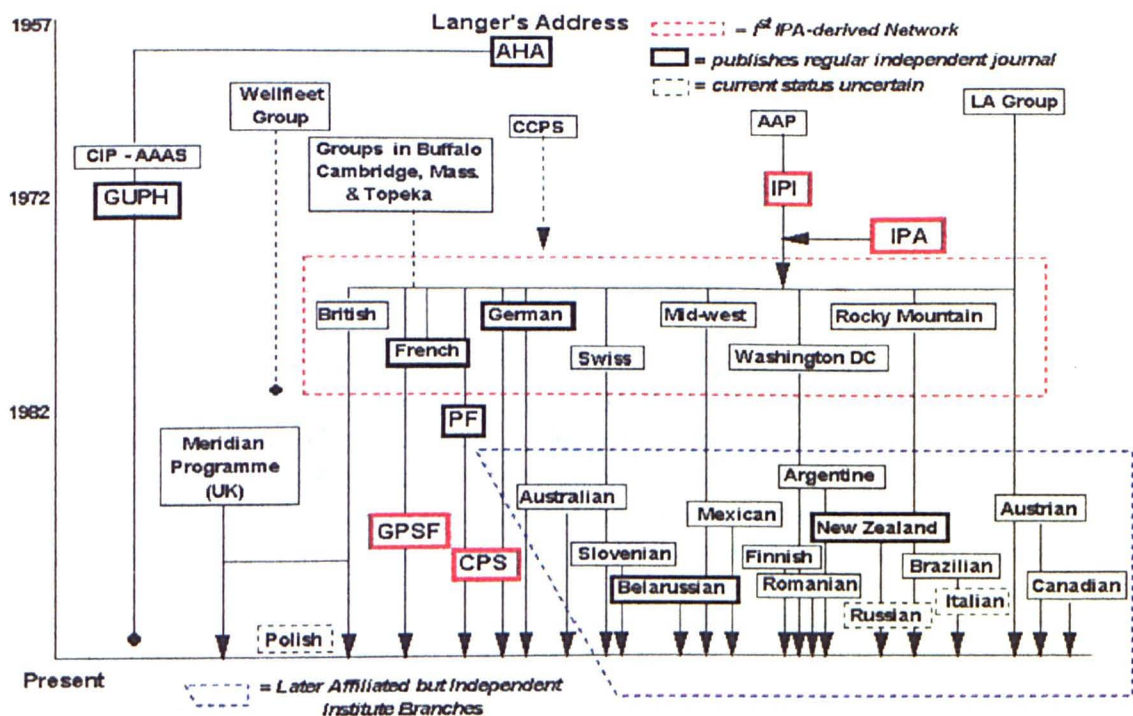

Fig.3.1: Psychohistorical Networks and Institutes from 1972 to the Present.

The various institutional networks that represent a direct outgrowth of psychohistory in the US and abroad since Langer's 1957 address to the AHA are shown in Fig. 3.1 above. These networks do not include the many independent organisations engaged in broader social applications of psychoanalysis, nor the various centres for 'psychosocial studies' that have emerged in recent years. The Meridian Programme is included due to its intimate links with the German Branch and the British Institute of Psychohistory (BIP). The temporal order of placement within the later network of international branches is not significant.

3.2. Diversification and polarisation within the networks.

All new fields that claim to support consilience and offer greater depth of understanding initially attract a wide range of scholars drawn from multiple disciplines as well as interested parties with no institutional affiliation - the 'independent' scholars. This period remains turbulent and conflicted until some kind of dominant paradigm emerges. When this happens, the field becomes 'professionalised' and institutionalised, defensive constructs become rigidified, the barriers go up and the danger often arises of intellectual sclerosis setting in. GUPH and the IPA represent opposite ends of a spectrum. Those engaged in psychohistorical work may be artists, consultants, historians, psychoanalysts, psychologists, social workers, teachers, theologians, therapists or whatever, all well-qualified within their specialties, but without any formal psychohistorical training. The main split is between academics and non-academics. GUPH represents the academic world and remains closely affiliated with the AHA. The IPA on the other hand was founded by an independent scholar - Lloyd deMause - who was a Columbia graduate but has no other formal institutional affiliation. *JOP* is perceived as much more diverse, challenging and controversial than *PR* (O'Toole 1978), but most of the 'flak' was directed from GUPH (while it existed) towards the IPA in general and deMause in particular rather than the other way around. From GUPH'S perspective there were three categories of psychohistory: "*psychohistory proper, its abusers and closet psychohistorians*" (Lawton 1988 p.10). 'Closet psychohistorians' would appear to have been those unaffiliated with any group who applied psychology and/or psychoanalysis to the study of history while not describing themselves as 'psychohistorians'. 'Abusers' were deMause and the IPA while the 'proper' psychohistorians were, unsurprisingly, members or affiliates of GUPH. Conflicts centred around three issues: 1) deMause's claim for the independence of psychohistory, 2) alleged deficiencies of methodology, language and style in *JOP* and 3) the willingness of IPA scholars to critically analyse the drives and motives of living political leaders or presidential candidates, as exemplified by deMause's studies of Jimmy Carter (in deMause 1982 pp.147-71) and Ronald Reagan (deMause 1984).

The first issue, the independence of psychohistory, would be quite likely to offend a group such as GUPH, anxious to maintain the field as "*a fly on the flank of the great beast History*"[5]. However, GUPH'S criticisms in this respect often assume an *ad hominem* flavour with respect to deMause, who is not considered an accredited member of the social science establishment. The antipsychohistorical writings of GUPH bulldogs

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[5] Personal communication from deMause to Lawton, cited in Lawton (*op.cit.* p.7).

such as Barzun (1974) and Stannard (1980) are criticisms of psychoanalysis itself, rather than of the idea of applying psychology to the analysis of history[6]. The second issue is more serious. *"The typical academic journal is dull enough to cure insomnia,"* writes Patricia O'Toole (1978 p.66), *"but the **Journal of Psychohistory** has gone the razzle-dazzle route"*. Whether or not this should be *JOP*'s aim is not at issue. The issue is that *JOP* is financially dependent on subscriptions and in seeking to popularise psychohistory, often at all costs, there is no question that qualities of style, methodology and content of many *JOP* papers are, to say the least, uneven. While many studies are well-written and insightful, others, intending to shock and to wake us all up to the realities of child abuse, verge on what can only be described as 'intellectualised pornography'. Many papers are essays in polemic rather than scholarly studies and the overall content of *JOP* tends to be dominated by deMause's psychogenic theory. Only those papers from other fields or perspectives are published that directly lend support to deMause's rather simplistic interpretation of the theory. For this reason, it is difficult to persuade major academic institutions to subscribe regularly to *JOP* and, by extension, to take psychohistory itself seriously. While there is much in deMause's writings that is valuable and insightful, psychohistory is not deMause nor is deMause psychohistory. DeMause and other IPA scholars have also been criticised for having *"an insecure grasp of both psychoanalysis and historical methodology. In theory, they are rigorously Kleinian"* while deMause is *"equally off-base in his understanding of history. Radical empiricism, as he calls it, is one thing, but historical evidence is always refractory, and it has been a century since serious historians talked of iron laws governing human affairs"*[7]. There certainly exist serious problems in the synthesis of psychoanalysis and historical methodology, but Lawton justifiably denies any over-reliance on Kleinian theory (*ibid.* p.11) and appeals to the work of Hempel in pointing out that concern for historical 'laws' is not necessarily so 'outmoded'. Much depends on what we mean exactly by 'laws'.

The third issue - the psychoanalysis of living political leaders - is indeed a delicate one as O'Toole points out (*op.cit.* p.64), involving possible invasion of privacy and defamation. John Fitzpatrick, a psychohistorian and member of the Menninger Foundation criticises deMause's study of Carter for the *"irresponsible inferences about Carter's mother"* and deMause's unfounded assertion that Carter would lead the USA into a major war (*ibid.*). We are on decidedly shaky ground here - without access to intimate details of a political candidate's private life, how is a possible psychological evaluation to be conducted? Clearly, the manner of conducting such an evaluation is at issue, rather than whether or not it should be done at all. If psychohistory is to be 'useful' to any degree, a significant part of the field's mandate is to analyse the pathology of power. We may well ask why it is that people entrusted with dangerous, responsible and sensitive missions (e.g. the military or NASA) are normally subjected to rigorous psychological testing and profiling, but that candidates for such responsible and influential functions as high political office should be exempt from such scrutiny and evaluated only on their power to gratify group-fantasies?

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[6] The hyphen in 'psycho-history' would appear to have been lost with Erik Erikson. Those who retain the hyphen tend to be hostile to the field - see Dunn (1974).

[7] Criticisms of deMause by Strozier and Daniel Offer cited in Lawton *op.cit.* pp. 10-11.

The IPA on the whole interprets the conflict between the two groups in terms of unresolved oedipal issues, and there is much to be said in support of this. The psychohistorical networks now span three generations and are sufficiently mature to begin showing at least some characteristics similar to the transgenerational groups studied by Collins (1998). Lawton cites Beisel's observation that the 'conservatives' (i.e. GUPH) "*do not seem to have achieved the same degree of separation-individuation* [as the 'radical' group - author's note]" (Lawton *op.cit.* p.10). The conservatives appear "*more preoccupied with staying in established frameworks*" (*ibid.*). In this light it would be interesting to apply the findings of Sulloway (1996) on birth order in scientific networks (ch.4.6) to the membership of both GUPH and the IPA. Certainly the intransigent stance of the conservatives in maintaining the supposed immunity of national leaders from analysis or psychological evaluation is rather telling in this respect.

3.3. Recent directions.

Other international branches have refrained from direct participation in this conflict and have felt free to explore a greater diversity of subject matter. In Europe, the psychohistorical studies of Arno Gruen on identity, individuation and the dynamics of power form a core of key archival material (see interview below). Gruen works as a private analyst in Zürich and has no direct affiliation with the Swiss branch of the IPA, established in the early 70's by Raffael Schek and now run by Florian Galler. Galler's work, like that of an increasing number of Europeans, has now come to focus on the psychosocial impacts of globalisation and the pathological group dynamics of international monetocracy[8]. This theme also emerges in the work of Peter Jüngst of the University of Kassel and Juha Siltala (1989, 1997) of the University of Helsinki. Jüngst, in addition to his critical studies of global monetocracy, also studies the deeper implications of the current Arab-Western conflict (Jüngst 2003) and is editor of *Urbs et Regio*, a publication linked with the *German Institute for Psychohistorical Research* (*Deutsches Institut für Psychohistorische Forschung* or DIPF). Siltala is one of a small group of Finnish psychohistorians who, although they have contributed to IPA conferences in the past and published in *JOP*, remain independent and incisively critical voices in modern psychohistorical scholarship. Among them, Juhani Ihanus, also of the University of Helsinki, has long been distinguished by a series of studies on childrearing in Russia (Ihanus 2001) and has recently collaborated with Petteri Pietikainen on a critical study of the earlier years of psychohistory (Pietikainen & Ihanus 2003). The work of Ilkka Levä, a doctoral student of Siltala's, focuses on the police culture in Finland and, by extension, studies the defensive institutional role of the police in containing the anxieties of the wider society. Significant work on this topic has also been done by Nigel Leech, Senior Lecturer in Social Work at the University of Teeside. Leech's work on the defensive functions of institutions evolved from his own study of the Cleveland child abuse scandal of 1989. Following the collusive suppression of all records of this event in the UK, Leech was obliged to write and present his work abroad at the European conferences in Amsterdam and Nuremberg organised by Jerrold Atlas.

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[8] e.g. *Group Dynamic Processes in Financial Markets* (1977) and *Mania on the Stock Market* (1999), both to be found on www.switzerland.net/Pw106775/mania.pdf.

The DIPF is currently growing in prominence and becoming a forum for both German-speaking psychohistorians and continental scholars in general. Originally established as the *Gesellschaft für Psychohistoriche Forschung* under Gerhard Bliersbach in the early 70's, the Institute is currently run by Winifried Kurth and Ludwig Janus. Kurth's work centres on the analysis of cartoon imagery in the media while that of Janus focuses on perinatal psychology (1997). Artur Boelderl originally established the Austrian branch of the IPA in Pasching but, like Florian Galler of the Swiss branch, appears to have recently moved towards a closer affiliation with DIPF. Boelderl and his wife, Daniela Mayr, used to publish fairly frequently in *JOP* but now tend to keep a polite distance between themselves and the IPA. A well-established philosopher in the fields of hermeneutics and the philosophy of religion, Boelderl's interests are now moving towards perinatal studies (Boelderl 1999) and the ethical implications of psychohistory (Boelderl 2001). The conferences held under the sponsorship of the DIPF in Heidelberg have now come to provide a forum for those concerned with the deeper psychosocial implications of pre- and perinatal psychology. David Wasdell, International Co-ordinator of the Meridian Programme in London since 1987, is now a regular presenter at these conferences and elsewhere. The British branch of the IPA was originally established by Brett Kahr in the early 70's. Directorship of the branch later passed to Ruth Dale, and after her emigration to the US, to the present author. Apart from Leech, Wasdell and the present author, other UK psychologists who have become involved in the psychohistorical movement include Dai Williams who runs a consultancy operation in the South of England, and Gary Buck, currently at the University of Westminster. Williams has conducted extensive studies in the psychology of crisis and change, and remains an attentive analyst of political events, both in the UK and internationally (Williams 1999) while Buck's interests would appear to lie primarily in the field of military psychology.

The French branch of the IPA was originally established by Jacques Bizière in the early 70's, but is now run by Robert-Louis Liris and Guy Lesec. The work of Liris and Lesec focuses on what might be termed *psychoarchaeology*. Both scholars have been active in studying the psychohistorical implications of the early Iron Age artefacts and inscriptions currently housed in the Museum of Glozel in France which were discovered in 1924 in a field adjacent to the museum. The other activities and interests of Liris and Lesec are described more fully in personal interviews with the present author, discussed below. An Italian Branch was recently created by Giuseppe Mucciarelli, based at the University of Bologna, but little is known at present of the current activities of this branch.

Since the fall of communism in 1989, the new freedoms gained in the former Soviet states inspired a number of scholars to investigate the possibilities of psychohistory. A Russian branch affiliated to the IPA was created in the 1990's by Sergei Shpak and based in Moscow, but after Shpak's recent death, it is not known whether the branch still survives and continues to operate. The Belarussian Institute for Psychohistory, established by Dimitri Samakhvalau and Olga Shutova in 1997, has proved a far more active enterprise, with an accessible website and the holding of regular conferences. Material published on the website tends to focus on the early history of the East Slavic

nations as well as the trauma of the Holocaust. A Polish branch was created by the present author in Warsaw in 1998, and a major psychohistorical conference held at Warsaw University in September 1999 under the auspices of the Institute for Dialogue and Universalism, an organisation created by the philosopher Janusz Kuczyński and based in the philosophy department at the university. A special edition of the journal *Dialogue & Universalism* (vol. IX nos.11-12/1999) was devoted to psychohistory and contained contributions from many of the scholars discussed above, but after the present author's arrival in the UK the survival of the Polish branch at this time would appear questionable. With the exception of the Belarussian Institute, psychohistory seems to have succeeded in gaining more lasting footholds south of the Carpathians. The Romanian branch, directed by Stefan Borbely and based at Cluj appears to be still very active, as is the Slovenian branch, founded by Alenka Puhar in Ljubljana. Both these branches depend very much on the enthusiasm and work of their founders. Alenka Puhar in particular has done significant research on childrearing patterns in the former Yugoslavia (Puhar 1994). Given the deep conservatism of Slavic family structures and the fact that the wider dispersal of the founding Slavic tribes is a comparatively recent historical event in terms of the transgenerational communication of emotional patterns within families, the results of her work are easily generalised to other Slavic nations.

Norman Simms, who established the New Zealand branch, regularly publishes *Mentalities/Mentalités*, the only psychohistorically-based journal in the southern hemisphere at the present time. This journal publishes contributions from around the world and is distinguished by the fact that it is not only international but multilingual. This branch is essentially a one-man operation while the Australian branch, founded by Richard Trahair at LaTrobe University, Victoria, appears to have been more successful in establishing regular study groups (see the interview with Simms, below). The South American branches in Argentina (founded by Telmo Escobar), Brazil (The Brazilian Institute for Psychohistory, founded by Roberto Ziemer) and Mexico (founded by Bill Landau) appear to be still active, though closely affiliated with *JOP* (their main English language publishing outlet) and the IPA. Attempts to create psychohistorical institutes in Africa and Asia have so far produced no lasting results.

3.4. Interviews conducted with contemporary psychohistorians.

During the IPA conferences at New York from 2001-2002 and the 2002 European Congress on Historical Motivations at Vichy, the present author conducted a number of personal interviews with prominent workers, scholars and teachers active in psychohistorical research. The list of interviewees was by no means exhaustive, being dependent upon time and opportunity, but they come nevertheless from a variety of international backgrounds. The aim of the interview was to gain some idea of the diversity of opinion and outlook among those working in the field. The interviews themselves were conducted in an informal atmosphere but were structured around seven core questions:

1) How would you define psychohistory?
2) How did you become drawn to the field?

3) Whose work (if any) interests you most, or has exercised the greatest influence upon you?
4) What (if any) is your own personal domain of research?
5) How should psychohistory be taught?
6) Is personal analysis a prerequisite for doing psychohistorical research?
7) How do you envision the future of the field?

Not all interviewees responded to every one of these questions - if the interviewer sensed that a particular issue was uppermost in the interviewee's mind, they were permitted to expand freely in this direction at the expense of other issues. The following accounts are in alphabetic order of surnames.

Dr. Mary Armstrong is a psychotherapist based in Toronto, Canada. Dr. Armstrong defines psychohistory as the search for human motivations in history. She came to the field through her work in psychotherapy and through an acquaintance with the work of deMause, who she also maintains has been the primary influence in her work. Dr. Armstrong also believes that personal analysis is by no means a prerequisite for psychohistorical research, but that some depth of self-knowledge gained through various methods of personal therapy is indispensable in the interests of avoiding researcher bias. Dr. Armstrong advocates the teaching of psychohistory through well-structured courses, either within academia or without, and views the field as having a significant potential for social and political praxis. Dr. Armstrong's contributions to the field focus on the dynamics of shame induction in male infants, as well as on historical distortions arising from the 'Allied view of history' following WW II (Armstrong 2000).

Prof. Rudolph Binion of Brandeis University defines psychohistory as an expansion of the study of history through an understanding of the motivations and actions of human beings. Such an approach would ideally permit a deeper insight into the mechanisms underlying historical process. Dr. Binion states that he came to psychohistory while researching the life of the writer Lou Andreas-Salomé, a close friend of Freud. From psychobiography, Prof. Binion expanded his interests to the dynamics of groups and now focuses primarily on cultural and intellectual psychohistory. He does not cite any particular work as having had any primary influence on his work, and stresses that no models or paradigms in other social sciences can be directly transferred to psychohistory if they cannot be integrated in some way with psychoanalysis. Prof. Binion clearly states that personal analysis is a prerequisite for valid research, citing the example of Peter Loewenberg (Loewenberg 1995). Prof. Binion is unsure of what kind of explicitly 'psychohistorical' courses could be taught at undergraduate level, believing that since psychohistory is so closely bound up with psychoanalysis, the best way of introducing students to psychohistory would be through a history of psychoanalysis itself. Through this heuristic approach, students would first gain insights into the deeper roots of human motivation and behaviour, only then seeking to apply these insights directly to historical data. Prof. Binion sees the future in terms of a greater involvement with undergraduate and postgraduate education, promoting an increase self-understanding and generally translating Id into Ego through the raising of conscious awareness. In addition to a psychobiographical study of Hitler, Prof. Binion has also published studies on 'how

classics become classics' and on long-term historical group trauma (Binion 1984, 1986, 1997). He is currently researching the effects of the Black Death on the European subconscious.

Dr. Paul Elovitz is a founding member of the IPA and of the *Psychohistory Forum*, editor of *Clio's Psyche* and contributing editor of the *Journal of Psychohistory*. A Founding Member and Professor at Ramapo College, he is also a practising psychoanalyst. Dr. Elovitz admits that various definitions of psychohistory have changed over the years, but that he sees the field essentially as a merger between history and the social sciences - especially with psychology, and with a particular emphasis upon psychoanalysis. Dr. Elovitz relates how he became drawn to the field initially through acquaintance with the teaching methods of Sidney Halpern while he and Halpern were teaching at Temple University in the 1960's. He cites Halpern as an example of someone who does not publish extensively or build institutions, but is capable of exercising a profound influence on those who come into contact with him. Dr. Elovitz regards Norman O. Brown's study *Life Against Death* (1959) as a determining influence in his future orientation, recognising this profound and disturbing work both as a fulfilment of Erikson's initial psychobiography of Martin Luther (Erikson 1958) and a challenging psychohistory of Euroamerican civilisation. He also cites Manuel's psychobiography of Isaac Newton (Manuel 1963) and deMause's *Evolution of Childhood* (in deMause 1976) as further influences, but freely acknowledges that many individuals at different levels have played key roles in his development as a psychohistorian. Dr. Elovitz's research interests are many. He became interested in the childhood roots of the creative process while on a sabbatical to the UK in 1981 where he came across T.S. Ashton's study of innovators during the Industrial Revolution. He is also interested in the techniques of historical dream analysis. Dreams, Dr. Elovitz maintains, are the wellspring of creativity and in historical biography, their accounts and interpretations provide a key to the projective-introjective dynamics of the biographer. Dr. Elovitz's Research Group has undertaken collaborative projects, including analyses of Presidential candidates prior to their choice as Party representatives - i.e. before they became, through their final election, the chief anxiety container and primary focus of mass national projections. Unlike the IPA, the Group has also undertaken an evaluative study of so-called 'Asimovian' psychohistory (*Clio's Psyche*, Vol. 5 no.1, June 1988). Dr. Elovitz is critical of what he sees as deMause's tendencies to readily generalise the fundamentals of psychogenic theory to whole nations, emphasising that if psychoanalysis involves a long interactive process with individuals, far more time and discretion is required for the reliable analysis of groups. Although having undergone a 10-year training analysis himself, Dr. Elovitz does not advocate personal analysis as a *sine qua non* prior to psychohistorical study, but emphasises nevertheless that some form of self-analysis is critical and therefore advisable. As regards the benefits and pitfalls of personal analysis, he does not support Friedländer's caution that the theoretical bias of the analyst or the dangers of an exploitative countertransference may compromise the critical skills of the analysand, believing that the self-insight and listening skills acquired during the analytic dialogue itself far outweigh such risks.

Arno Gruen, formerly Research Professor in Neurology at Cornell University Medical Centre, now in private psychoanalytic practise in Zürich, defined psychohistory as *"a way of looking at the psychological underpinnings of history"*, and stressed how behavioural organisms are shaped by primary experience in the womb. This response led to a more extended discussion on perinatal psychology, where Dr. Gruen discussed the various influences upon intrauterine morphogenesis arising from maternal stress during pregnancy. It is here, Dr. Gruen believes, that we may identify the roots of 'splitting' in identity formation. Describing how he came to write his first psychoanalytic paper, *"Autonomy, Identity and their Opposition"* in 1968, Dr. Gruen proposed that both aggression and supposedly 'innate' tendencies to submit to the dynamics of power arise through suppression of the 'inner core' of the authentic self by a 'power-sculpted identity' imposed through socialisation - clearly endorsing the idea that conflicted states of the 'human condition' arise through a combination of both generic and inflicted trauma. He believes that a personal analysis is not essential for doing psychohistorical research, that a more fruitful path may be through 'constructive dialogue' with others on the dialogic model proposed by Paulo Freire (Freire 1990), and that Freire's work and methodology form the best introduction to psychohistory for young people seeking to discover more about the field. Dr. Gruen concluded the interview by expressing the wish that future work in psychohistory may eventually provide insights that will permit groups and cultures to counteract the effects of authoritarian ideologies and engage more directly with authentic reality. Dr. Gruen's extensive publications all focus on the issue of traumatisation, power dynamics and the development of authentic personal identity (e.g. Gruen 1992, 1993, 1999a, 1999b).

Dr. Guy Lesec, formerly of the Pasteur Institute, is co-founder (with Robert Liris) of the French Society for Psychohistory (*Société Française de Psychohistoire*). Based in Bellerive-sur-Allier, he currently works as a microbiologist and pathologist and has made significant contributions to psychohistorical metatheory through his research into the molecular encoding of memory during morphogenesis (e.g. Lesec 2000). As the study of 'human motivations in history', Dr. Lesec views psychohistory as an Aristotelian quest for primary causes - for those elements of formative human experience that lie beyond the event horizon whose boundaries are delineated by collective repression. Dr. Lesec reveals how he found history as a school 'subject' very boring, but later, having completed his medical qualifications, he became intrigued by the role of the unconscious in culture and the history of science, and by humanity's unconscious relationship with our environmental matrix. Dr. Lesec describes the 'conscious' or 'official' relationship as one of *"pseudo-connaissance"*. He relates that his interests in psychohistory grew and developed primarily through co-operation with Robert Liris (e.g. their collaboration in researching the psychosexual (and psychohistorical significance) of the Glozel idols - see Hitz 1997; Lesec 2001). His chief interests include the history of religion and the study of long-lasting institutions based on structures of *initiation* (churches, Freemasonry, the Rosicrucians etc.) which he believes, citing the works of Guénon (2001), can be understood as microcosmic analogues of the evolution of civilisations. With regard to the teaching of psychohistory, Dr. Lesec does not advocate any formalisation of the process but recommends developing a theoretical base through an 'openness to learning' and to multiple modes of knowledge. Preferring self-analysis to any formal training analysis, he

freely admits that his own knowledge of psychoanalysis has been constrained by scientific work and has developed primarily through close association with the international psychoanalytic community. Pointing to the strong mythic element in Asimov's *Foundation* cycle, Dr. Lesec expresses the hope that psychohistorical insights may eventually enable us to avoid past historical errors and break out of the repetitive cycles of rise and fall that characterise all histories of civilisation. Viewing contemporary psychohistory as still being in a period of 'latency' comparable to that of the early psychoanalytic network, he believes that current groups are still constrained by a 'romantic' self-image, but hopes that steady accumulation of insight may in time lead to an appreciation of the deeper processes and structures latent within the collective unconscious that will allow us to develop new political behaviours in response to the perennial threat of war and conflict.

Robert-Louis Liris, former Vice-President of the International Psychohistorical Association and co-founder, with Dr. Guy Lesec, of the French Society for Psychohistory (*Société Française de Psychohistoire*) proposed that psychohistory is essentially a path towards knowledge of the 'core of suffering' that underlies the human condition and history in general. Dr. Liris stressed the possible role of a psychoanalytically-based archaeology in uncovering the primal trauma of prehistory, taking the Freudian view that some form of 'primordial crime' ("*crime primordiel*") that occurred far in the distant prehistoric past of *Homo Sapiens* is the traumatic source of the splitting mechanisms and conflicts expressed both in archaeological relics and cultural symbolism in general. Psychoanalytic archaeology becomes the 'telescope' through which these conflicts can be perceived and hopefully, through psychoanalysis, resolved. Dr. Liris proposes that this *crime primordiel* may be linked to the disappearance of the Neanderthals at the time of the emergence of *Homo Sapiens*, and that the eventual supremacy of the latter is due to a proclivity for the destruction or enslavement of all species, whether closely related or not, that do not serve immediate human ends (Liris 1999). Dr. Liris does not believe an actual personal analysis is necessary for doing research, but that a deep knowledge of psychoanalysis gained through study, dialogue and interaction with the psychoanalytic community is indeed a prerequisite. Through this interactive dialogue, experience is gained of the mechanisms of transference and countertransference, an experience that can be productively enriched and applied through teaching, leading to a transformation of outlook on the part of both teacher and students. Dr. Liris has co-operated with Dr. Guy Lesec in researching the psychohistorical significance of the early Bronze Age relics at the Museum of Glozel (Liris & Lesec 2000).

Dr. Norman Simms of the University of Waikato, New Zealand, refrained from attempting any supposedly precise definition of psychohistory, maintaining that the very subject-matter of the field creates tension between what can and what cannot be said, and that no adequate terminology exists as yet for the deep-level, oblique transformative energies that underlie psychohistorical processes. Dr. Simms dates the beginning of his *explicit* interest in the field to a meeting with deMause in the late 70's, but asserts that his interest in cultural anthropology had already been kindled while on study leave in Romania in 1974 through an encounter with the rich folklore of the Balkan regions and that he has a 'sparring relationship' with deMause. His main interests now lie in the

transgenerational communication of trauma, especially among the Jews, where he believes this communication to have a somatic base, not only in the generic sense, but through the retraumatising experience of circumcision (Simms 2001). Dr. Simms maintains that Freud's key insights are due less to his specifically 'Jewish' identity than to his profound personal feelings of social alienation and institutional rejection in 19th century Vienna. Dr. Simms also believes intersubjectivity to be a key issue in research - through projective and introjective ties with the research subject, a researcher's personality is defined by his/her interests and methodology. He believes a personal analysis to be 'useful but not essential' for psychohistorical study, and that an adequate knowledge of psychoanalysis can be gained through an ongoing, productive dialogue with the psychoanalytic community. While the work of Erikson and deMause's *Foundations* (1982) as well as studies published in *Clio's Psyche* and the *Journal of Psychohistory* can all serve as useful introductions to the field, Dr. Simms remains sceptical of any specifically 'psychohistorical' course structures. At the same time, in analysing history we are engaged in the quest for the most fundamental answers - where are we, how did we get here? No other field can adequately come to grips with these issues, but Dr. Simms believes the best approach in education at present is to gradually weave the insights of psychohistory into the fabric of other courses. He feels an especially strong resistance to these insights in New Zealand, believing this to be a by-product of the country's colonial legacy of British reticence and repression and pointing out that the experience of Richard Trahair in the more culturally-diverse and 'cosmopolitan' Australia - where a small study group has now been established - has been somewhat better. Dr. Simms is especially enthusiastic about current advances in such fields as neurobiology, evolutionary psychology and complexity theory, believing these new perspectives to have a great potential for informing psychohistorical research by enabling us to gain a fuller understanding of how evolution itself evolves - this being an essential step in the development of a more critical consciousness. Dr. Simms has done significant work in the analysis of myth and narrative structure in literature (Simms 1992).

Dr Jacques Szaluta, Professor of History at the United States Merchant Marine Academy and author of *Psychohistory: Theory and Practice* (Szaluta 1999), defines psychohistory simply as the application of psychoanalysis to history. Through this, we go further than traditional historiography, seeking to find out 'why?' rather than just 'what?'. Dr. Szaluta relates how he first became involved with the field during graduate school at Columbia. Here, he found conventional approaches to the study of history insufficient, believing that through the application of insights drawn from psychoanalysis it would be possible to seek fuller, more rounded explanations of individual actions and events and avoid the unconscious bias which he saw as endemic to traditional scholarship. Dr. Szaluta believes motivation to be linked to early childhood experience, but does not fully embrace the psychogenic theory of deMause, criticising the deMausian paradigm as reductionistic and exclusionary. He asserts that although early experiences are indeed critical, further stages in adult development are also relevant to behaviour at later periods in life. Dr. Szaluta cites the work of Lowenberg as important for his development as a psychohistorian. He believes strongly in psychohistory's capacity for liberation, in the inherently democratic power of the field in enabling us to rise above bias, prejudice and

the constraints of the irrational, in rendering the unconscious conscious and in deconstructing relations of power, citing the development of psychohistory in Russia as an example. Dr. Szaluta believes that clinical training in psychoanalysis is not a necessary prelude to psychohistorical research, but that it is helpful, at least for the purpose of acquiring a basic grounding in theory - a grounding that is best acquired through direct experience. Like Dr. Elovitz, Dr. Szaluta does not support Friedländer's caveat concerning the analyst's bias or the dangers of an exploitative countertransference, maintaining that the analytic process cannot fail to facilitate greater self-insight. He believes that considerable progress has been made in the field since the late 1940's, but that psychohistory needs to become firmly ensconced in key universities and that there should be greater publicity given to the field in general through favourable comparison with more traditional methods of historical analysis. For the aspiring student, Dr. Szaluta recommends wide reading of the works of Freud, world literature and psychohistorical studies, the taking of organised courses and, wherever possible, clinical training.

3.5. Aspects of the current crisis.

The feeling of crisis permeating the field at present is reflected in the fractured and depressive state of many groups and branches. Some accuse the IPA in general (and deMause in particular) of having played a divisive role over the latter third of the 20th century and of alienating the academic community through a combination of aggressive propaganda, intolerance, possessive behaviour with respect to psychohistory and questionable scholarship. This is not the whole story. It is true that the IPA is becoming increasingly dysfunctional and has recently been shaken and divided by power dynamics within the organisation. DeMause has assumed an increasingly paternalistic stance towards the group and has gathered a faithful coterie about him in an effort to preserve purity of doctrine, in many ways recapitulating the dynamics of the first psychoanalytic network under Freud, a process that has alienated many European scholars. However, much recent behaviour within the organisation may reflect underlying anxieties absorbed from the wider population - New York in particular and the US in general. This is suggested by the spectrum of presentation themes and the national origin of participants at the annual conventions over the last 6 years (i.e. from 1999-2004).

Table 3.2. below shows the spectrum of presentation themes. The themes are essentially the same as those found in Table 2.2 of ch.2, with two additions: CT (Childhood Trauma) and TR (Transition - i.e. presentations relating to any perceived current or imminent global crisis). From Table 2.2 it can be seen that papers dealing with Cultural Neuroses (CN) and psychohistory in general (Ψ-H) tend to predominate. 1999 saw the aftermath of the Lewinsky affair during the Clinton Administration and the diversion of national attention though pursuance of the war in Kosovo (the pursuit of an external enemy). Anxieties at this period were therefore not excessive, with only 3 of the CN papers focussing on domestic neurosis (Table 3.3). Participation in the Convention of that year was high (55) with an overall international representation of 18.2% (Table 3.4). The balance of New York-New Jersey participants to those of other US states is understandably high given the location of the conventions. The New York-New Jersey contingent is significantly larger than that of participants from other states in 4 of the 6

Year	1999	2000	2001	2002	2003	2004
Political Situation:	Clinton Admin.	Clinton Admin.	Bush Election	Post 9/11	1st year of Iraq War	2nd year of Iraq War
Ψ-B	5	7	5	2	3	9
Ψ-H	9	17	16	6	13	4
CH	5	2	1	1	4	4
CN	15	6	23	13	12	13
FS	1	1	1	1	3	2
DS	2	3	1	3	1	0
GP	0	0	1	1	1	0
WA	7	3	0	8	1	2
CT	6	9	4	6	0	2
TR	2	1	0	0	3	3

Table 2.2: Presentation themes at the IPA International Conferences from 1999-2004.

Year	1999	2000	2001	2002	2003	2004
Russia	3	0	0	0	0	1
Greece & Rome	0	1	2	2	2	0
Japan & Far East	2	0	0	2	0	0
Middle East	1	0	0	1	0	0
Europe	1	1	3	2	3	1
US	3	1	12	5	7	10
Organisation Psychology	2	1	0	0	0	0
Jewish History	0	0	4	0	0	0
S. America	0	0	1	0	0	0
Africa	0	0	1	1	0	0
General	3	2	0	0	0	1

Table 2.3: Primary foci of the 'Cultural Neuroses' papers from 1999-2004

Year	1999	2000	2001	2002	2003	2004
No. of Presenters	55	49	53	47	37	33
Non-US & Canada (%)	18.2	28.6	13.2	14.9	8.1	0.0
New York - New Jersey (%)	38.2	38.8	47.2	49.0	43.3	52.0
Other US States (%)	42.6	32.6	39.6	36.1	48.6	48.0

Table 2.4: Origin of presenters at the IPA International Conferences from 1999-2004.

conventions studied. It will be seen that international participation peaks at 28% in 2000 (the final year of the Clinton administration) and begins to decline steadily thereafter following the election of George Bush Jnr. in 2001. The data presented here is not the result of an extensive, longitudinal conference analysis, hence no direct correlation between the contributory factors can been clearly established. Nevertheless, certain implied correlations are, at the very least, suggestive.

In 2001 the number of CN papers peaks at 23 with over half of them focussing on US pathologies. This figure drops in 2002, the year following 9/11, but the size of the New York-New Jersey contingent significantly increases - it was felt that the population was only emerging from deep shock at this time and had yet to enter a period of confrontation and deep mourning. While international participation had dropped significantly following the Bush election, it increased slightly in 2002 despite alleged fears of a further attack, doubtless in sympathy for New York colleagues.

2003 marked the beginning of the Second Gulf War. International participation drops to 8.1% at this time, due in part to international disagreement over the role of the US in this war as well as increases in domestic security and border vigilance. At this time, New Yorkers had emerged from shock, but were in a state of paranoid aggression and had not yet entered into depressive mourning. The war's defensive function can be seen in the fact that presentations relating directly to War and Aggression (WA) fell from 8 to 1 - suggesting that aggression, especially on the part of the US, had become a taboo subject in New York. In this year, severe anxieties and conflicts emerged during the group process sessions regularly conducted during each convention. Feelings of imminent global crisis are reflected in the 3 papers devoted to social transition and collapse (TR). In 2004, the 2nd year of the Iraq War, CN papers dealing with US cultural neuroses predominate, international participation drops to zero, and during this convention the governing body of the IPA was restructured to include only the 'old guard' - New York-New Jersey-based members whose allegiance to deMause is unquestioned. Although the overall sample is sparse, involving only six samplings taken at yearly intervals, more continuous phases in the defensive centralisation process that culminated in 2004 can be observed through an analytic reading of correspondence within and between the *internet discussion groups*. This is a source of rich data concerning the inner processes taking place within the group between conventions, but is too extensive to be included in the present study. Combining such data with long-term analyses of conferences on the above model promises to be an effective way of studying the longer-term evolution of scientific or intellectual groups and networks.

The IPA maintains that "*it has, with varying success, sought to self-analytically examine its own group process as an experiential way of learning about how historical groups behave*" (Lawton 1988 p.9). It has experienced 'varying success' because IPA self-analytic techniques are mostly inadequate and inconsistent. Although the IPA is well aware of group process analysts who have drawn attention to and studied the various fantasies that develop within groups (e.g. Hartman & Gibbard 1974; Stierlin 1977; Davis 1980; Stein 1987) the organisation has failed to utilise or apply in any consistent way any of the various experimentally-tested methodologies developed for group process studies

such as Bales' *Interaction Process Analysis* (Bales 1951; Mills 1984 pp.49-53), Stryker's *Symbolic Interaction Model* (Stryker 1980, 1981), structural-functional models (Parsons *et al.* 1953 pp.111-61), the cybernetic models of Deutsch (1963 pp.75-142) or any of the methods developed at the Tavistock Institute - methods which, if the group fears contamination by 'alien' (i.e. social psychological) methodologies, can always be tested against, correlated and integrated with, the IPA's own group process paradigm (deMause 1982 pp.143-46, 172-93). Neither are any recordings made of these sessions (as far as the participants are aware), nor any subsequent, detailed fantasy-analyses published. Admittedly, group size is the problem. At the annual conventions, one large group meets once a year - a group well exceeding the critical number for 'large' (see Gibbard *et al.* 1974 as well as ch.5 of the present study). At group process sessions there is only one facilitator - Henry Lawton - who in his function as secretary is not normally aware at first hand of the smaller-scale group dynamics that unfold during presentations[9]. There is no trained core of observers who might act independently and then correlate their results. In view of this it is hardly surprising that the proceedings tend to be dominated by a smaller, locally-based core group who communicate more closely over the rest of the year, outside the context of the annual conventions.

Other affiliate branches are aware of the need to develop the maturational capacity to do collaborative psychohistorical research, but such groups suffer from numerical self-limitation as well as inadequate multi-centred sub-structuring. Whatever they achieve within these limits cannot percolate upwards to attain any degree of synthesis during the annual conventions. For the IPA to move in this direction it would need to maintain more regular, formal and structured contact with the affiliate groups[10] and the total organisation would need to consistently apply something akin to the dialogic, matrix-based methodologies developed in the context of the Meridian Programme (Wasdell 1993, 1996)[11]. It would need to regularly interchange member functions and hold quarterly 'sub-conventions' so that analytic insights would achieve maximum diffusion.

Although psychohistory is felt to be in crisis by those involved in it, interest in the application of psychology to historical analysis has not diminished in recent years, but rather has grown. Many new journals appear each year claiming to promote some form of interdisciplinary synthesis between psychology and history, and the web is awash with entries for the word 'psychohistory'. Many of these websites are of dubious quality, some have interesting possibilities. At the same time, although formal courses in psychohistory have been instituted at some US universities and colleges such as Kansas, UCLA and SUNY, most universities are hostile to the formal incorporation of psychohistory into the

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[9] In 2004 the number of observers was increased to 2 - still inadequate. The roles of facilitator and observer remain confused. At least 5 strategically-placed (or hidden) observers would be required for a group of 33. Presentations take place in 3 rooms, so that there are 3 being conducted simultaneously and competition for an audience is often acute. Obviously, the status of the various participants is defined by audience numbers. It would be the presentational groups who might offer the best opportunities to apply the small group models and paradigms cited above.

[10] Free discussion groups on the Internet do not fulfil this function - these simply result in the formation of more 'electronic tribes'.

[11] This was recommended during the 2003 Convention but regrettably, these suggestions were suppressed during the final group process session in favour of an 'acting-out' display of power dynamics.

curriculum, whether as an independent discipline or as a module within the context of psychology or history while the reputation and position of some scholars is actually threatened through their association with deMause (O'Toole 1978 pp.66-7). Whether the actual material of psychohistory is perceived as threatening, or whether the frequently confrontational, anti-academic stance and siege mentality of the 'radicals' is prejudicial to the acceptance of the field within the academic community is unclear. Overall, the present author believes both factors are at work.

The IPA's own on-line training programme has not proved successful due to its over-narrow approach (it suffices, apparently, to 'read the works of Lloyd deMause') and/or a lack of co-operation and commitment from a sufficiently diverse number of people. The problem therefore remains: how to attract young people to the study of psychohistory? The difficulty is due both to the complexity and depth of the subject as well as the degree of 'ego-deconstruction' required for research and action. "*Young people*" according to E.O. Wilson's co-evolutionary circuit model, "*primarily assimilate culturgens and spread gametes*" (Lumsden & Wilson 1981 pp.266-7). This means that in human societies, young people are required first of all to display adequate proficiency in understanding and manipulating the accepted symbols and defensive constructs of their culture if they are to be permitted to receive full initiation (i.e. graduate), gain entry to an acceptable career and thereby have more chance of success in finding a mate. Their priorities are therefore necessarily structured by their psychosexual development. While young people certainly can do psychohistory, those who have made significant contributions to psychohistory in the recent past have tended to be deeply troubled in one way or another. This does not mean that psychohistorical research should be confined to grey hairs, but that training for young people (which is certainly vital for our future) needs to be carefully designed and implemented through appropriately-designed educational programmes that base a broad and diverse range of intellectual skills upon a firm substrate of psychological self-understanding. It is unlikely that any modern state curriculum or educational policy would countenance such an approach at the present time.

Far deeper issues confront the field however, issues that arise from our current historical situation. As we enter a period of instability and crisis due to resource depletion, environmental destruction and population pressures, all groups that comprise the global community are experiencing intense anxieties triggered by what is perceived as the imminent failure of the collective holding environment. In global society's present schizoid state, the long-term dialogic and hermeneutic process of healing through psychoanalysis or therapy is tolerated less and less - exemplified by the transition to 'managed care' in major institutions. Corporate-dominated society no longer has the time or inclination to explore the deeper recesses of the psyche - an argument which is well summed-up in Juha Siltala's study *The End of Psychological Man* (Siltala 2001). But at the same time, even as the 'scanning behaviour' reflected in the current explosion of new disciplines threatens us with knowledge death, the opportunities for reassessing, deepening, expanding, refining and integrating the earlier intuitive concepts of psychoanalysis have never been greater.

If psychohistorians in general are to allow the field to grow and evolve, they must transcend the limits of deMausian psychogenic reductionism, overcome the growth panic reflected in their unwillingness to extend methodologies and embrace *"new, scientifically cogent and interdisciplinary theories of mind and of group relations"* (Pietikainen & Ihanus 2003). They must develop a sound metatheoretical base of sufficient depth to accommodate these theories and above all, develop a sense of collective purpose. This does not necessarily mean rigid, formalised institutionalisation and control. What it does require is that members (and especially the leadership) of psychohistorical groups should possess a high degree of psychological maturity and personal awareness as well as a thorough knowledge of the extent to which organisations are prone to absorb the collective anxieties and defensive dynamics of the societies in which they are embedded and to re-enact these dynamics collusively through unconscious transference and countertransference both within and across their boundaries with the larger social environment. These issues will be discussed further in ch.9.

Chapter 4. The Basic Perinatal and Family Matrices

4.1. The Setting of Initial Conditions.

The four domains of the psychohistorical enterprise identified by Lawton (1988) and Szaluta (1999) are: 1) childrearing and the history of parent-child relations, 2) psychobiography (individual history), 3) family systems theory and 4) group process (small and large). These four domains require integration within a unified construct. In addition, there are three core hypotheses or 'heuristic principles' that can be inferred from the general axioms stated in ch.4 of deMause's *Foundations*, from the elaboration of these statements in the studies of Lawton (1988) and Szaluta (1999), from the catastrophe structures relating morphogenesis to the emergence of consciousness to be explored in ch.7 and from the theoretical statements of Erikson, Lifton and Friedländer to be discussed in ch.9. As hypotheses, they are both demonstrable and falsifiable. They are implicit in all studies claiming to be psychohistorical, but have never yet been stated explicitly. They are:

a) *That the human being is an evolving process whose psychodynamics and manifest behaviours are crucially dependent upon initial conditions.*

b) *That generic and inflicted traumata experienced during morphogenesis and early childhood are restaged through group process at political and sociocultural levels.*

c) *That history is a co-evolutionary dialogue between the collective psyche and the evolutionary matrix within which it is embedded - i.e a continually evolving, mutually-interactive process between the emergent properties of individual and group psychology and those of the external biological and sociocultural environment.*

Three clarifications are necessary. Firstly, if "*the cornerstone of psychohistory is evolution*" (Stein & Apprey 1987 p.136) then the keystone of the psychohistorical arch is trauma. Trauma (>Greek: 'wound') is clinically defined as "*physical injury caused by some direct external force or... psychological injury caused by some extreme emotional assault*" (Reber 1985). Psychological traumatisation occurs when the recipient of such an assault is helpless and emotionally or physically unprepared to deal with its consequences due to comparative immaturity, the scope and ferocity of the assault, or a combination of both factors. Pre- and perinatal studies add a deeper dimension to this clinical definition: that traumatisation can also be the result of any degree of impingement experienced in the course of drastic transition from one organic state to another. This means that transitional events that may be considered 'perfectly normal' can nevertheless leave emotional or affective residues that generate specific traits or biases in the future psychological development of the organism. If members of an entire species experience the same type of transitional event, the traumatic residue of this event will appear 'normal' to all members - i.e. this event will occur according to a shared evolutionary 'norm' or eventuation flow, deviance from which may be considered 'obviously' impossible or,

should it occur, 'unnatural' or pathological. Yet it is the traumatic residue generated by this 'normal' flow of eventuation that may give rise to those very traits in a species that are most distinctive, but which are hardest to countenance objectively - precisely because the traumatic source of these traits is blocked off from conscious memory or dissociated, becoming the Jungian 'shadow' lying behind a perceived reality which is in fact a strongly defended illusion. For the human species, birth trauma is a clear example. Clinical evidence suggests that the birth process is far more traumatic for humans than for members of other mammalian species and that the reasons for this lie in the phylogenetic trajectory of the species (ch.6) - the very traits that gave humanity an evolutionary advantage to begin with have increased human traumatisation in direct proportion. Trauma is of two types: *generic* trauma is that trauma arising through the species-specific, genetically-determined morphogenetic sequence determined by evolution, while *inflicted* trauma is any trauma occurring over and above this shared, species-specific level.

Secondly, the variety of defences employed to shield the organism from being overwhelmed by traumatic memories include all the psychoanalytically-recognised paranoid-schizoid mechanisms such as dissociation, splitting, condensation, reaction formation, displacement, denial projection and introjection. Hypothesis 2 states that these mechanisms, when shared by members of a species in response to generic trauma, become correlated within a single dynamic framework to form the defensive system known as culture and if as hypothesis 3 implies, culture is 'an Orphic response to the evolutionary sources of awe', those awe-inspiring sources are morphogenesis, birth, sex, death and the socio-environmental context in which they occur.

Thirdly, where exactly do we set the 'initial conditions' of hypothesis 1? 'Life begins at birth' states the classical paradigm, but gynaecology, obstetrics and a wealth of studies in fetal psychology now amply confirm that 'life' - in the sense of 'conscious life' - begins long before this. If psychogenesis (the growth of consciousness or mind) is an emergent property of morphogenesis (the growth of organic form), then from what is known about the dynamics of morphogenesis (Thom 1989) we can infer that individual consciousness begins with the first division of the zygote. But the zygote is already a composite entity formed by the fusion of gametes, each bearing a portion of the genetic heritage whose combination creates the singularity or initiation set (*ibid.* p.114) for individual growth. Organic identity is thus born from the fusion of two histories, each encoded in the molecular and chromosomal structures of the contributory haploid cells. This would suggest that the 'eventuation flow' containing the transitions leading to birth actually begins with the expulsion and interaction of gametes prior to their final fusion to form the zygote (Wasdell 1990 pp.11-17). Since identity begins with the genesis of memory - the recording of experience - and memory itself grows through the gradual accumulation and association of residue deposited at each instant of organic experience, we need to know exactly how this residue becomes encoded at molecular and cellular levels to form the somatic substrate or basis for the later more elaborate, complex unfoldings identified as 'conscious' mentation.

Memories are not located within specific neural clusters or networks but dispersed over the entire topography of the brain and thence to the nervous system through an extensive system of nodes which are in turn comprised of neural groups, each of which is linked to the other by synaptodendritic connections of varying strength or potential (Edelman 1987, 2000; Varela 1995; LeDoux 1996; Carter 1998; Schiffer 1998; Elman *et al.* 1999; Siegel 1999). At the same time a structural hierarchy exists, the earliest networks being laid down first through the more archaic parts of the nervous system such as the basal ganglia and reticular formation (Bruter 1976) and expanding cotemporally with the growth of the organism through the amygdalan nuclear complex, the hippocampal and cortical regions (Siegel 1999 pp.28-39). If the emergence of consciousness is modelled as a sphere (Fig.4.1) expanding from the point of origin O (which for now we take as the point of conception), the encoding of memories expands isotropically (in all directions) along three main 'metadimensions' (shown in Fig.4.1 as three axes for the sake of simplicity): 1) the *x*-axis - that of stimulus reception, expanding from olefactory (i.e chemical affinity) through tactile, auditory, visual and verbal, 2) the *y*-axis - levels of encoding, from somatic through various levels of affective to cognitive and 3) the *z*-axis, representing levels of awareness from unconscious through preconscious to conscious (*not* id ego and superego!).
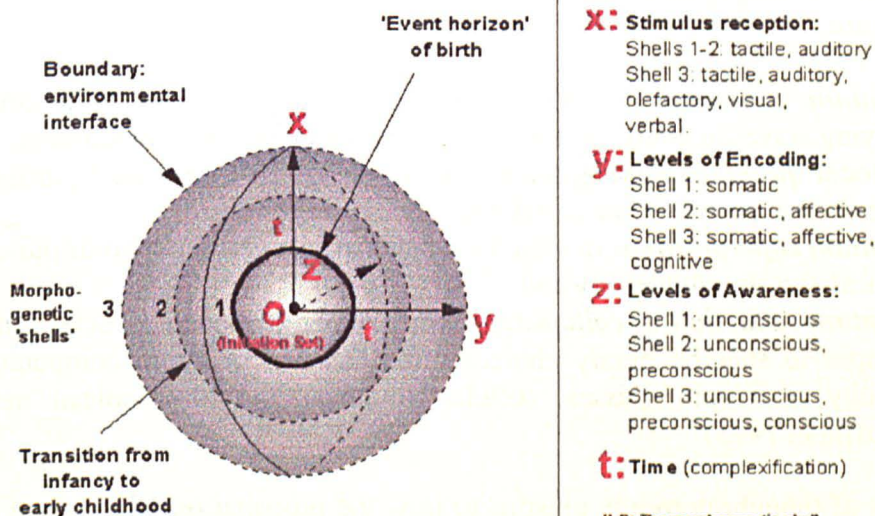

Fig. 4.1: The Expansion of Memory.

These steps or levels within each metadimension are not discrete but merge gradually into each other, although significant phase transitions occur along the scale of complexity from molecular → cellular → tissue differentiation → organic consolidation →

organismic (the individual person)[1]. The metadimensions expand isotropically (that is, as multiple radii in all directions, hence into multiple dimensions) as well as simultaneously with time t (rate and level of complexification), and the various levels of each become interconnected with each of the others (e.g. somatic ↔ conscious, cognitive ↔ olefactory), especially during the peak of the growth phase. The various levels of stimulus reception (x) and of encoding (y) remain constant during the growth of the organism, but conscious levels of awareness (z), especially those involving trauma, may often be repressed into the realm of the unconscious, rendering them less and less accessible over time.

4.2. How trauma is encoded at the level of ultrastructure.

The field of quantum psychology began to emerge when earlier studies of biophoton emission and superradiance[2] (Dicke 1954; Eberly 1972) and of nanoscale biological structures (termed *ultrastucture* by René Thom: Thom 1977; Eccles 1985, 1992, 1993; Hameroff 1982, 1990) were linked with the holonomic brain theory of Karl Pribram (Pribram 1991) which related macrolevel neural processes to quantum brain dynamics (QBD). Both perspectives later merged in Amoroso & Martin's model of the *Heisenberg Matrix*, which integrated quantum field theory with vacuum geometries and the principle of nonlocality (Amoroso & Martin 1995). Four kinds of quantum phenomena generate effects that can be propagated upwards in the hierarchy of co-evolving biological systems. These are:

1) *quantum coherence*: in which individual particles yield to a collective unifying wave function (exemplified in the Bose-Einstein condensates),
2) nonlocal *quantum entanglement:* in which spatially-separated particles are nevertheless connected or correlated,
3) *quantum superposition:* in which a single particle exists in two or more states or locations simultaneously and
4) *quantum reduction* or *collapse:* in which superpositioned particles reduce or collapse to specific binary choices - the basis of quantum computation by analogy with spin glasses, cellular automata and NK-Boolean networks (Kauffman 1993).

Two trends of thought currently exist as to how the propagation of quantum effects and co-evolutionary feedback become possible. One is the Penrose-Hameroff *Orchestrated Objective Reduction* (Orch OR) model (Hameroff & Penrose 1995; Woolf & Hameroff 2001), and the other is the Tuszynski *microtubulin* (MT) model (Brown & Tuszynski 1997; Tuszynski *et al.* 1998). Both models derive from the *quantum tunnelling* phenomena (a combination of 1-4 above) believed to occur in *tubulin dimers*. Tubulin dimers are bipolar molecules of the protein *tubulin* of which *microtubules* are composed.

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[1] In the human species, each level of complexity occupies a volume c.32 orders of magnitude (10^{32}) greater than its predecessor. The volume of a protein molecule is c.6×10^{-26} m^3 while the human race occupies a volume of c.8×10^6 m^3 (Satinover 2001).

[2] 'Superradiance' or 'collective spontaneous emission' of photons occurs when a pulse of sufficient energy can self-perpetuate by remitting all the energy absorbed - a mechanism which provides a path for the Bose-Einstein condensates (Stehl 1996).

Networks of microtubules, linked by bonds of microtubule-associated proteins (MAP's), form the cytoskeleton of neurons (at the nanolevel, skeletons are anything but rigid!). A microtubule consists of 13 columns of tubulin dimers arranged in a skewed hexagonal lattice (Fig. 4.2 below).

a) Dimer polarisation

b) Dimers arrayed in 13-column hexagonal lattice to form microtubule. Configurations vary. One vertical interface always generates 'spin-glass frustration'.

c) Central region of neuron showing parallel arrayed microtubules interconnected by Microtubule-Associated Proteins (MAPs). Axon microtubules are long and continuous whereas dendritic microtubules are shorter and of mixed polarity.

Fig. 4.2: How Microtubular Lattices form Neuron Cytoarchitecture.

This peculiar structure has been shown to be ideal for the generation and propagation of signals - information being generated through the point-instant conformation of groups of quantum-associated tubulin dimers and propagated by waves of coherent photons (i.e. superradiance, also known as Fröhlich excitation (Fröhlich & Hyland 1995)). The electrons of each dimer can switch between two (or more) conformational states (α and β in Fig. 4.2 (a)) and thus polarise the dimer in 'conformance' with an associated group. The electrons are sealed within hydrophobic pockets in which they exist simultaneously in two 'potential' conformational states. Collapse and conformation are induced by the opening of channels to the exterior 'noisy' (thermally-excited) environment via the MAP network. When this happens, electrons which may even be spatially distant (entanglement) will 'resonate' (tunnelling) and collapse to a conformational state induced by propagation of the Fröhlich wave (superradiance) - the 'coherence' factor. The skewed 13-column microtubular lattice is so constructed as to maintain the structure in a state of 'frustration' - that is, to facilitate the flow of drifting conformational fields within the lattice, whose boundaries lie close to the 'liquid region at the edge of chaos' (Kauffman 1993 p.218). In this way, the computational processes occurring at the nanolevel are analogous to those taking place in well-known physical structures such as spin-glasses

ferromagnetic/aniferromagnetic lattices, cellular automata, NK-Boolean and neural networks (Hopfield 1982; Kauffman *op.cit.* pp. 218-30; Satinover *op.cit.* pp. 54-103).

In addition to MT-conformation, quantum tunnelling also plays a major role in enzyme catalysis by determining a) *chirality* - i.e. into which chiral form (left- or right-handed) the atomic configuration of a particular molecular group will conform to (Pugliano *et al.* 1992; Satinover *op.cit.* pp. 182-3) and b) how newly-encoded molecular strings of protein become enfolded into one of many possible states of minimal energy (eigenstates) - that is, configurations in which the *potential* energy is maximised (Bahnson & Klinman 1995; Bahnson *et al.* 1997). The complex arrangement of atoms in a protein molecule is therefore embedded in a quantum matrix whose role is to maximise the energy potential of that protein within a minimal time frame. In this case, conformation is catalysed through the propagation of *phonons* or classically coherent sound waves (Stuchebrukhov 1996; Daizadeh *et al.* 1997; Basran *et al.* 1999). The net effects of both these processes - enzyme catalysis and MT-related activity - is to "*govern intra-neuronal architecture and synaptic function by modulating sensitivity of membrane receptors..., ion channels and synaptic vesicle release mechanisms, communication with genetic material and regulating axoplasmic transport, which accounts for delivery of synaptic material components*" (Hameroff & Penrose 1995 p. 259).

Classical wide-field quantum phenomena are normally possible only at temperatures at or near to, absolute zero (-273°K). How therefore are such effects possible at the median temperature of the brain (c.37.5°C)? It should be remembered that the brain is a dissipative structure and that dissipative structures are driven by a supercritical rate of energy input (Nicolis & Prigogine 1977). The phenomena we have been describing are facilitated by a process of *quantum annealing* (Satinover *op.cit.* pp.100-1). Just as steel is annealed by precisely-timed sequences of heating to critical temperatures and then cooling so as to reduce internal stresses and render it less brittle, so the neural domains where quantum activities take place are subjected to thermal excitation via MAP channels (stressing), following which the propagation of phonic waves (within the protein matrix) and superradiant or Fröhlich waves (in the microtubular core) 'anneal' the excited regions to conformal states. Regions in a state of quantum superposition and entanglement are normally shielded from spontaneous decoherence by a combination of the following factors: 1) the isolation of electrons within hydrophobic pockets (Woolf & Hameroff 2001 p. 472), 2) the shielding of MT surfaces by layers of 'ordered' water (Jibu & Yasue 1993; Jibu *et al.* 1994; Hameroff & Penrose *op.cit.* p. 261; Del Giudice *et al.* 1998) and 3) further shielding within the cytoplasm by alternating sol (solution) and gel (gelatinous) states of cytoplasmic actin (Hameroff & Penrose *op.cit.* pp. 261-2; Woolf & Hameroff *op.cit.* p. 472). Sol states permit access to propagating waves, while gel states isolate quantum-sensitive regions from spontaneous decoherence.

The Penrose-Hameroff model proposes that coherence-inducing waves governing quantum events can form part of larger-scale, global topological manifolds (Woolf & Hameroff *op.cit.* p. 472 - see ch.7, this volume), whereas the Tuszynski model focuses on small-scale, purely local events whose computational effects are nevertheless propagated upwards through the hierarchy of phase transitions in biological dissipative structures.
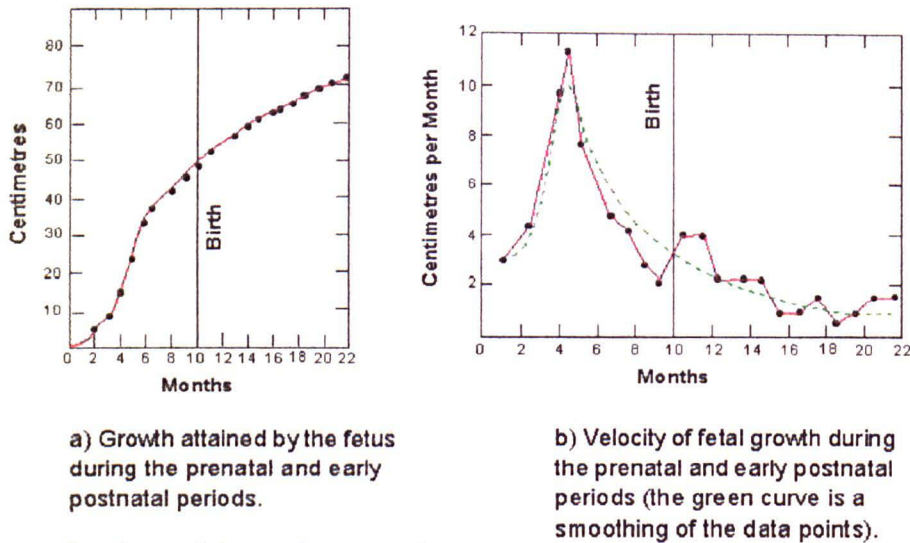
Both models, as well as the holonomic theory of Pribram, propose feedback systems whereby lived experience at organic and organismic levels can continually modify the type and periodicity of coherence-inducing waves that in turn direct the conformational states of ultrastructure in response.

Events at the nanolevel have many features of 'chaos' (ch.7), but quantum chaos is not the same as 'classical' chaos. The 'attractors' of quantum chaos are often eerily reminiscent of primitive organic forms (Satinover *op.cit.* p. 201), but they remain bound or 'compactified' at the nanolevel - otherwise, if quarks or other particulate matter were to enter the classical domain, the Newtonian reality in which we exist would instantly collapse. This reality "*surfs on a standing wave of spacetime. The present moment is created and recreated constantly - like a continuous image... originating deep in twistor space*" (Amoroso & Martin 1995). It is the Heisenberg Uncertainty Relation that provides both a boundary and a fabric for translation between twistor (quark) space and experiential reality. Compactification is a key issue here (ch.7.4). Unstable or chaotic states at a given level are always 'compactified' (stabilised within a finite number of eigenstates) into higher dimensions at the next level. The 'organic analogues' of quantum attractors are in fact translated fractally into the classical domain through compactification, while events in classical domain influence the collapse or transition of these attractors at the nanolevel.

This brief excursion into the quantum realm serves to underscore a key thesis in this study: that conscious life is an emergent property of matter or, more precisely, that "*information of state is inherent to the deep structure of the universe*" (Amoroso & Martin *op.cit*); that molecular and cellular encoding of experience can and does occur throughout the lifespan at all levels (Lesec 2001), and that what is mistakenly referred to as 'junk DNA' is not junk at all but 'latent DNA' - the substrate for a wide field of 'potential' adaptiveness and the encoding of future experience (ch.7).

4.3. The origins of generic trauma: morphogenesis and the pre- and perinatal matrix.

The pre- and perinatal matrix lies at the core of any generalised psychohistorical matrix and is the foundation of all psychohistorical theory. The charts displayed in Fig. 4.3 (a) and (b) show that the most critical growth phases in human life occur within the period extending from conception to the end of the first year after birth. It can be seen both from the steepness of the growth curve in Fig.4.3 (a) and the velocity peak of Fig.4.3 (b) (occurring between the fourth and sixth months of life *in utero*) why events during this critical period create all archetypes against which later experiences will be measured - experiences that will either anneal or augment the emotional residue originating within this matrix.

a) Growth attained by the fetus
during the prenatal and early
postnatal periods.

b) Velocity of fetal growth during
the prenatal and early postnatal
periods (the green curve is a
smoothing of the data points).

D'Arcy Thompson: *On Growth and Form*, 2nd. ed. (1963)
Cambridge University Press.

***Fig. 4.3 (a) and (b): Charts showing (a) fetal growth (absolute size) and (b) growth
velocity (from D'Arcy Thomson's* On Growth and Form *(1963 edition)).***

Morphogenetic history begins prior to the act of conception - with the approach of disjunct haploid cells towards the point of fusion. Wasdell (1990 p.15) suggests that echoes of this primordial, chthonic event in the lives of all members of the species appear as feelings of rootlessness, of pursuit of an ever-elusive goal, of a fundamental alienation from the 'ground of being' or, as Wasdell continues, of being "*aware of immense creative potential yet never finding the resources to put it into operation, or even in reverse direction, journeying back to the source, turning the origin into the object of pilgrimage*" (*ibid.*). The next transitional phase in the life of the organism is that of gamete fusion - the initiation point of the zygote. For the male gamete, this event may signify fulfilment or attainment of a goal, although it may also threaten the individual with engulfment or loss of identity. From the perspective of the ovum or female gamete, fertilisation may be encoded literally as *full-fill*-ment, by 'taking in' that which is necessary to make it whole, or the event may be encoded as violation or rape, with concomitant loss of integrity (*ibid.* p.16). In both cases, biologically speaking, the merging of gametes signifies the loss of each cellular 'identity' through fusion, as happens with simple organisms such as *spirogyra* (in late autumn) and some other protozoa. Two become one in the literal sense. The new identity arising from this fusion - the zygote - is androgynous, it has no subjective sense of 'gender' as yet, even though the sex of the zygote is inscribed in the newly-compactified genotype. Although the sexual organs are formed *in utero*, the infant identity that will undergo the critical experiences prior to birth is a psychological androgyne and it is as androgyne that the infant will experience the eventual catastrophic loss of the intrauterine paradise.

The third phase is that of *nidation* or implantation within the womb. Implantation is a fight for survival - only 40% of fertilised ova implant successfully and survive this phase (Wasdell *op.cit.* p.14). The complexifying blastocyst emerging from the fallopian tube into the cavity of the womb has only a limited time to implant successfully before its internal resources become depleted to the point of threatening its survival. For implantation to take place, the blastocyst must overcome the immune defences initially present within the womb lining and moreover, must penetrate this lining within the brief time span during which the hormones necessary to prevent menstruation become activated and reach the site of the ovaries. This 'near death experience' may become even more desperate if maternal immune defences are strengthened by the mother's own negative or fearful attitude towards pregnancy (Verny & Kelly 1982 p.30). After implantation, the processes of tissue differentiation and embryo formation begin. The morphogenetic sequence of stasis → fusion → mitosis → embedding → differentiation are organic analogues of enfielded catastrophe manifolds (Zeeman 1977; Thom 1989 and ch.7 of the present study). These are compactified under the varying external influences of pre-natal development and become the substrate upon which the later transmarginal experiences of placental degeneration and birth will unfold to create the archetype of bimodality, of splitting and polarisation into what we classify as 'good' and 'evil'.

These three impingement events - gamete transport, fusion and implantation - are common to all mammals. The organic stress they give rise to is encoded at the very broadest and most inclusive level - the nanolevel, that of ultrastructure. Somatically-encoded experience accounts for most commonalties of perception and response to the shared environment among viviparous (live-bearing) species - which is why we feel more kinship with mammals than, for instance, with oviparous reptiles. The stresses of morphogenesis are specific to each biological order (mammals, insects, reptiles etc). Among mammals however, the specifically human experiences of gestation, birth and early childhood have certain distinctive features that mark them off sharply from those of the related phyla. Their origins are found in the species-specific paths of human evolution. These features have arisen due to expanded consciousness, upright posture and *neoteny*.

Human consciousness is the synergetic product of a) shifts in the adaptive landscape of the protohuman EEA (*Environment of Evolutionary Adaptiveness*) and b) biosocial evolutionary responses to these shifts (ch. 6). The expansion of consciousness is a double-edged survival weapon. While conferring an enormous evolutionary advantage in terms of increased flexibility of response to a wide variety of environmental conditions, it has led to a great increase in the cranial size of the human fetus in order to accommodate the complexifying brain. This development has not been matched by any concomitant expansion of the birth canal. With the adoption of upright posture in the adult female, the fetus is no longer supported by the 'abdominal sling' of muscle from the spine during the later months of gestation (as it still is among other primates). The resulting downward pressure from the increasingly heavy fetus leads to a corresponding rigidification in the pelvic bone structure and reduced elasticity in the associated musculature at the very time when greater flexibility is needed (Janus 1997; Rosenberg & Trevathan 2003). This downward pressure also increasingly constricts the flow of blood to the uterine

environment, inhibiting the passage of nutrients and the flushing of waste. Resources therefore become scarcer as the need for them increases (Briend 1979). In addition, other deformations in the human birth canal arising from evolutionary factors greatly complicate the final passage of the fetus prior to birth (Janus *op.cit.* pp. 11-14; Holmes *op.cit.* pp. 84-5). As a result, some degree of brain haemorrhage is an almost unavoidable concomitant of parturition (Janus *op.cit.* pp. 49-51). Cranial expansion and human social evolution are co-evolutionary by-products of human *neoteny*. Neoteny or *paedomorphosis* is defined by the biologist Stephen Gould as *"the retention of formerly juvenile characters by adult descendants, produced by retardation of somatic development"* (Gould 1977 p. 483). Humans are born premature and remain morphogenetically retarded (childlike in bodily form) for their adult lives. Somatic retardation is the price paid for increased brain size and broader adaptive potential - not only is the human fetus exposed to an exceptionally constricted birth environment, it is physically helpless, and indeed remains so for an extended period after the trauma of birth. At the same time, its developed consciousness is especially vulnerable to the impact of *transmarginal stress* (Wasdell 1990) - stress induced by major phases of transition during morphogenesis. Yet the future evolutionary tendency is towards *increasing* neoteny or *foetalisation*, not less (Róheim 1950 pp. 428-34). As biological beings, humans have reached the physical evolutionary limits at the junction between natural birth and expanding consciousness or, as Wasdell points out, *"we live right at the boundary of evolutionary compromise between prematurity and survival"* (2002 p.10).

The reality of fetal consciousness has by now been thoroughly demonstrated (Verny & Kelly *op.cit.*; Trevarthen 1980; Chamberlain 1980). *"The results of recent studies"* writes Lloyd deMause, *"have all been in one direction: to push earlier and earlier the onset of all developmental stages and sensory abilities of the fetus"* (1982 p. 252). Consciousness and a sense of identity do not therefore 'blossom' after parturition, but have developed and complexified exponentially *in utero* since the moment of conception to approach adult levels by the onset of the third trimester (Verny & Kelly *op.cit.* pp. 28-30; Wasdell 1987 p.10).

Many external factors emanating from the mother impinge upon early growth within the womb. Nevertheless, the first months of gestation are *retroactively* idealised (after the catastrophic experience of parturition) as a time of peaceful symbiosis and uncomplicated growth, a floating existence in a stable, self-contained, closed universe that is nutritionally plentiful and bounteous (Burrow 1964; Laing 1976). No effort or struggle is required to procure the necessities of life. Self-absorption is complete because symbiosis is total, and the fetus thrives in a solipsistic state within an aqueous environment very different to that of later, post-natal life. The only 'relationship' experienced by the fetus is with that strange, exotic, non-human entity - the placenta - to which it is joined by a 'fifth limb' - the umbilicus (deMause 1982 pp. 258-62). As is the case with most 'idealised' relationships, nothing appears to be wrong until it is noticed that something definitely *has* gone wrong somewhere along the line. For the unborn child, this occurs sometime around the onset of the seventh month when growth has begun to exceed the placenta's capabilities for nourishment, and the latter begins to degenerate. Symbiotic symmetry is broken and for the first time, the fetus begins to experience 'the other' as something non-

compliant, antagonistic, even murderous. As the placental degeneration continues, its arterial and venal networks toughen and become more fibrous but at the same time, the child's growth and nutrient needs relentlessly increase. The child feels more and more cramped and confined, the onset of infantile hypoxia (lack of oxygen) precipitates desperate feelings of suffocation and entombment (Hellegers 1963; Saling 1968; Jilek *et al.* 1970 p. 987). The somatically-encoded memory traces of earlier transmarginal stress are now greatly reinforced and magnified through the power of an expanding consciousness, increasingly capable of complex emotive experience. A major existential impingement is taking place, but the child has no consciously-considered strategies derived from the evaluation of past experience with which to cope with it - the stress experienced is *transmarginal* (Wasdell 1990). The placenta is now felt not as the compliant and bountiful source it always seemed to be, but as something evil, threatening, indeed, as something monstrous, fibrous and tentacled, which threatens the child with suffocation or strangulation. It is no longer nourishing, but poisonous (deMause *op.cit.* p. 259). The situation continues to deteriorate during the final phase prior to birth until the moment of birth itself, an event accompanied by intense constriction, strangulation and crushing, and which terminates only with expulsion and ejection into a totally alien environment. During this final phase, life functions become critical and the subjective experience of pain surpasses all known thresholds tolerable to the adult (Meschia 1978). Life is finally purchased, but at the price of a titanic struggle that for the infant and later adult will have no equivalent, neither in the past nor in the future. Birth is the 'event horizon' of human experience. The fact that it is considered 'normal' only indicates the degree to which we construct 'normality' as a barrier containing the 'black hole' of an experience, the memory of which cannot be countenanced if the co-operative work of survival is to proceed unhindered. The abyss of infinite subjective terror must be closed, contained and repelled through objectivisation, systematisation and control. The implicit, dissociated memory of this catastrophic event cannot be borne alone, but through association with others, through co-operation and creativity, we learn to mask the trauma of this shared experience, at once shielding ourselves from the raw core of memory, yet constantly re-enacting the process, disguising it through various collusive activities in an attempt to comprehend and master it. Group formation in the interests of survival may seem a rational evolutionary strategy among many species, but the particularly intense human drive towards sociality is both catalysed and vitiated by psychodynamic factors arising from neoteny and expanded consciousness - "*individuals form groups in order to repeat and overcome the fetal drama*" (deMause *op.cit.* p. 261).

4.4. Experiential boundaries and the genesis of emotion.

In the study of morphogenesis a *chreod* is the template or plan of development which includes, in the case of a living organism, not only the set of genes or genetic template (the *initiation set* of a chreod), but also the zone or set of boundaries within which all possible future states of the organism will occur (the *zone of influence*). The term originated in biology (Waddington 1957) and was later adopted and refined as a more specific, topological construct in the analysis of the dynamics of living systems by Thom (1989 - see ch.7). A chreod has many dimensions and may contain any number of

subchreods, each of which has an initiation set which intersects with that of the 'containing' chreod. An individual organism is a chreod, while its component organs and subsystems are all subchreods. Groups, societies and even entire civilisations can also be considered as chreods, with their component subgroups and individual members constituting several levels of subchreods. If psychogenesis is an emergent property of organic growth, then it is possible to speak of *psychodynamic chreods*, of which *palingenesis* or birth re-enactment is a prime example. The subchreods of such a psychodynamic chreod would be the biochemically-encoded imprints of transmarginal stress that prefigure, anticipate, yet are therefore part of and contained within, the principal chreod. In the case of palingenesis, the encoded reactions to impingement that precede the actual drama of placental degeneration and birth constitute the subchreods of the containing, 'palingenetic' chreod. These reactions may even be encoded in genetic structure and transmitted to future generations (Greenacre 1945). Fig.4.4 is a diagram showing the main points of transition in the life of an individual that are sources of transmarginal stress and which are *shared* with all other conspecifics. Many events in the post-natal life of an individual are also highly traumatic, but not all of them are shared – they constitute *inflicted* trauma, and can be excluded in the present context of *generic* trauma. Inflicted trauma will assume greater importance when we consider how generic trauma is either reinforced or annealed.
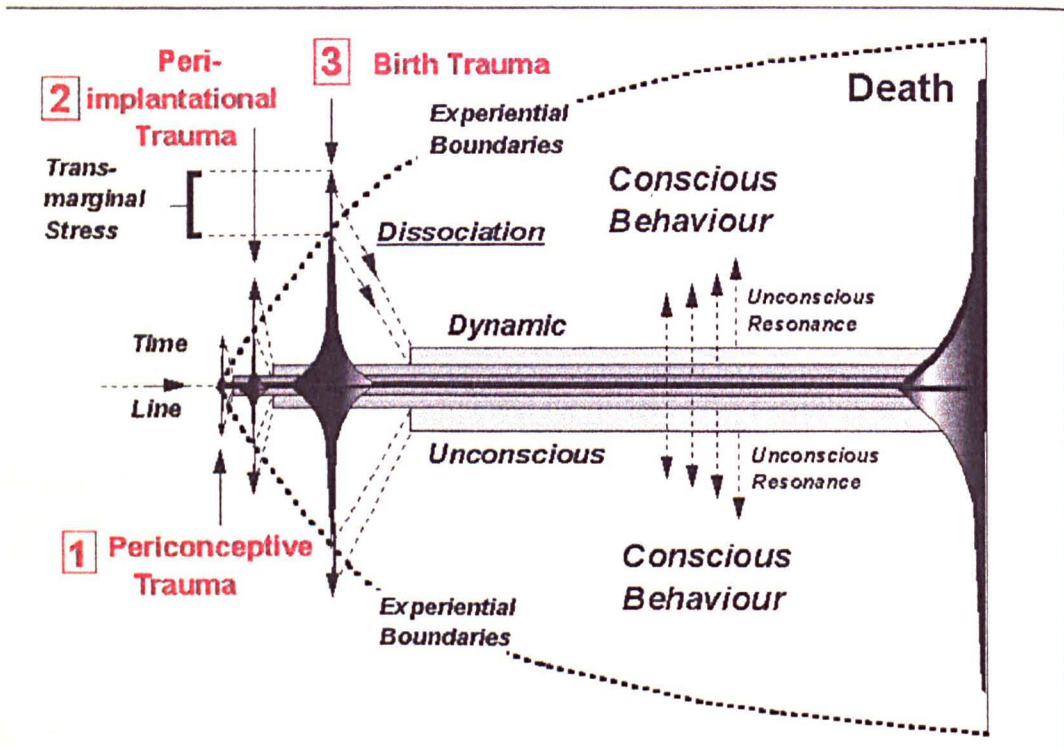

Fig. 4.4: Phases of Generic Trauma.

In Fig.4.4 the growth of consciousness is shown as an expanding cone, analogous to a 'light-cone' in relativistic physics. Any event whose stress levels lie within this cone can be interpreted on the basis of previous events also lying within its boundaries. However,

major transition points during morphogenesis generate levels of stress that far transcend the margins or boundary limits of previous experience. When this occurs, the stress quotient that exceeds these boundaries becomes *dissociated* or split off from active consciousness and enveloped within a defensive intrapsychic construct whose function is to contain and control the potentially explosive power of the residual anxiety generated by this stress. Transmarginal experience can also be positive - e.g. the 'orgasmic' dimension of BPM-IV as described by Verney (*op.cit.* p.110). It is the quotients of transmarginality, whether positive and negative, that deform the 'canonical' unfoldings of morphogenetic fields and create the neurobiological templates for all modes of intrapsychic defence. Moreover, beyond primary epigenetic effects arising directly from the genotype (Lumsden & Wilson 1981), the extensive neural mass of the growing fetus remains unmyelinised and comparatively undifferentiated (Edelman 1987 pp.4-8, 2000 pp.83-6). All intrauterine experience therefore has a global impact on the fetal psyche. The word 'emotion' applies to all experience transcending the boundaries of what can be recognised, 'measured' and interpreted. Every emotion derives from that quotient of experience (positive or negative) that exceeds known boundaries of interpretation, and is therefore 'ineffable', 'inexplicable' or 'transcendent'. These 'transcendent quotients' are discrete neurobiological realities, permanent neural excitation paths globally imprinted on the neural mass of the fetus by the neurotransmitter flows of Edelman's 'value system' (Edelman 2000 pp.42-7) and encoded through enzyme and protein structures at molecular, cellular, organic and somatic levels by means of the quantum processes discussed above. All fetal experience is therefore 'transcendent' insofar that there is no previous body of 'rationalised' experience against which events can be interpreted. As the capacity for conscious interpretation develops through the imprinting of increasingly complex relational representations within the orbitofrontal cortex during the first 2 years (Schore *op.cit.*), experiences are filtered through the framework of these representations and to an increasing degree rationalised and contained.

Transmarginal stress can be and is experienced at any point in the post-partum lifespan - through inflicted trauma during childhood for example, or by cataclysmic events experienced in adulthood - the source of PTSD as diagnosed in concentration camp or disaster survivors, victims of brutal crime or war veterans. The awareness and fear of, impending death, which has often been accurately identified as a prime mover in the generation of culture (e.g. Lifton 1974), is greatly exacerbated in human beings by the dissociated quotient of transmarginal stress generated by the previous experience of 'virtual' death immediately prior to birth - what Grof refers to as BPM-III (stress point no.3 in Fig.4.4 above).

The impact of generic trauma will be reinforced in individual cases by a number of external factors, including the emotional attunement to the fetus on the part of the mother, levels of domestic stress, maternal nutrition and lifestyle (smoking, alcohol intake or substance abuse)[3] as well as by complications during the birth process itself. The more

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[3] Studies in this domain are extensive. The most complete list assembled in one place can be found in deMause (1982) pp.321-22, notes 41-71. Many countries have compiled national obstetric data on fetal growth, e.g. in the British and American *Journals of Obstetrics and Gynaecology* and in *Child at Risk: A*

fearful experiences of parturition are often augmented by the insensitive procedures, often verging on violence, that are considered part of the 'normal' practise of hospital delivery: the intrusive use of forceps, rough handling of the fetus, premature section of the umbilical cord, the administration of tranquillisers or anaesthetic drugs to the mother, and isolation of the new-born from the mother during the crucial moments following birth[4]. While the practise of caesarian section is unavoidable when the lives of mother or infant are at risk, Verny & Kelly (1982) and Wasdell (2002) warn us that the adoption of this procedure as a 'norm' - i.e. with the intention of mitigating or avoiding the difficulties of natural birth - can generate trauma specific to this process arising from a) invasive penetration of the fetal environment, b) sudden exposure and violent seizure of the unprotected infant and c) consequences of maternal fear and stress induced by a major drastic incision. The traumatic legacy this procedure may impart to the new-born includes fear of exposure (agoraphobia) as well as a mixed dread of, yet craving for, physical contact (Verny & Kelly op.cit. pp. 97-98, 110-11). Verny's binding of pain with pleasure - specifically, that of sexual intercourse - at the crucial conjuncture of birth (ibid. p.110) has serious implications for the unfolding of hedonic and agonic relations of dominance and submission in human groups.

BPM I	Symbiosis within the womb, a state of peace, of timelessness, of Paradise, of 'union with God' and of being in touch with the 'ground of Being', during which the environment is ever bountiful, limitless in resources and endlessly supportive of unfettered growth.
BPM II	The beginning of antagonism, conflict and of subjective time. This phase runs from the onset of placental degeneration to that of labour, hence first evoking a sense of increasing confinement and suffocation, and of shrinking lebensraum, eventually leading to powerful sensations of constriction and crushing, of cardiac distress and intense suffering, and finally to the feeling of being sucked towards a whirlpool - of being between Scylla and Charybdis - or of being swallowed by some monstrous placental avatar - a dragon, octopus, giant squid or many-headed Hydra. A confrontation with, and fear of engulfment by, the infinite abyss of Being.
BPM III	The titanic struggle of birth, the 'Mother of all Battles', archetype of all wars, of Armageddon and Götterämmerdung, of all sadomasochistic orgies, of cataclysmic volcanic eruptions, nuclear detonations, rapes, mass murders, suicidal frenzies and orgies of destruction - the ultimate conflict between Life and Death.
BPM IV	After birth - liberation, relief, salvation, the sensation of having been forgiven, purged, absolved, yet also of being exhausted, helpless and exposed - the anticlimax of 'what now?'.

Table 4.1. The Basic Perinatal Matrices of Stanislav Grof (deMause (1982) pp.244-50).

As we have seen, the 'emotional template' through which the drama of *palingenesis* or birth re-enactment is filtered has been studied by a number of perinatal psychologists including the Czech analyst Stanislav Grof, the German perinatal analyst Ludwig Janus and the psychohistorian, Lloyd deMause. It has been cast into a 4-part sequence termed

[4] Verny & Kelly (1982) *passim*. Many post-natal cultural practises are collusively devised and subconsciously perpetrated (inflicted trauma) so as to reinforce traumatisation at a level consistent with a given culture's psychogenic level. Examples include infant circumcision, scarification, mutilation, swaddling or baptism in freezing water. Western hospital practices also inflict the 'appropriate' trauma in the name of the 'religion' of science.

the *Basic Perinatal Matrices* (BPM I-IV). Having discussed the phases of perinatal experience we are now in a position to examine this sequence more closely. The four main phases, each of which is dynamically linked to all the others, are briefly paraphrased in Table 4.1 above. The entire process of morphogenesis up to and including parturition can be summed up in the digraph of Fig. 4.5 below. Fig.4.5 is a 'nested' or 'hierarchic' digraph in which upper elements are dominant to the lower (and the lower submissive in relation to the higher). The arrows from parent to child are unidirectional since the digraph primarily shows the *formation* of the child's defensive constructs. They are bidirectional in relation to the extraparental environment since the child simultaneously projects and introjects 'bad' or 'good' parts of the imprinted construct into or from this environment following patterns laid down during the prenatal and early socialisation periods - the reader should compare this chart with Fig. 4.4 above.
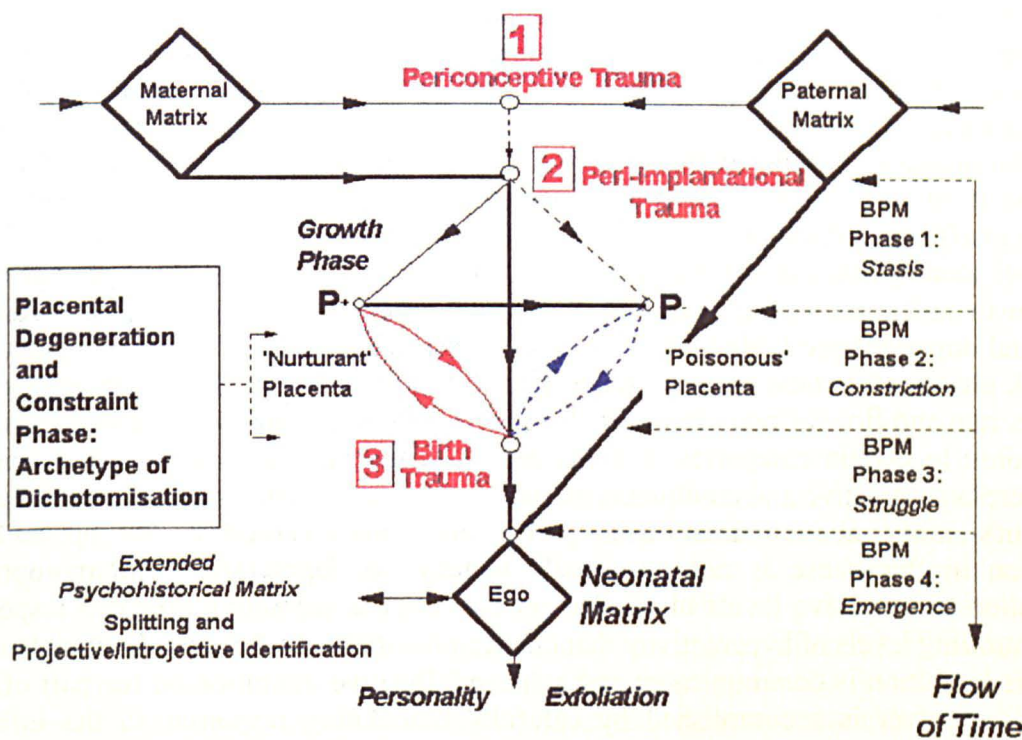
Fig.4.5: The Pre- and Perinatal Matrix

4.5. The annealment or reinforcement of generic trauma during early infancy.

After birth, all lives unfold and diversify along an infinite number of possible paths, all of which explore the limitless variety of responses to the challenge of life. Yet all share and carry that '*initial alienation that is the heritage of birth*' (Gruen 1999b), re-staging or re-enacting, alone or in concert, an experiential sequence for which no words exist that can adequately describe it, but which can ultimately be re-cast into an infinite variety of verbal structures, clothed or disguised in metaphor or simile, and constantly be replayed at all levels within the unfolding drama of history. The annealing or reinforcement of generic trauma begins after birth in the context of the relationship with

primary caregivers. If generic trauma has been severe and compounded by external factors, the psychological condition of the new-born may be extremely precarious and if caregiver bonding is insufficient, the residual shock and terror may become a contributory factor in Sudden Infant Death Syndrome (SIDS). It is likely that the level of generic trauma, its degree of reinforcement plus inadequate postnatal attunement on the part of caregivers during the first extrauterine phase of ontogenesis are all deeply implicated in this syndrome, which gave rise to Freudian and Kleinian concepts of the 'Death Instinct' (Wasdell *op.cit.*; Gruen 1999a).

The first 18 months following birth constitute the most critical phase of socialisation and interpersonal development for the infant. Building on the work of Bowlby (1969, 1973, 1981), Winnicott (1966, 1971) and Mahler *et al.* (1975), the monumental work of Schore (1994) and Siegel (1999) are important steps in the realisation of Freud's dream - the creation of a neurobiological basis for psychoanalysis (Schore 1994 pp. 21, 315, 532-42). These studies are highly compatible with Edelman's general theory of *neuronal group selection* (Edelman 1987, 2000) to be discussed in chs. 6 and 7. Schore has shown how the dyadic relationship between infant and primary caregiver during the earliest post-natal phases of infancy plays a major role in the enhancement or inhibition of neural networks in the orbitofrontal cortex - the region of the brain where primary experiences relating to affect regulation (control of the emotions) and the emergence of a sense of self (personal identity) become encoded. This enhancement or inhibition concerns not only the growth and extension of major neural complexes such as the lateral and ventral tegmental dopaminergic limbic circuits as well as the 'transient developmental structures' that link phases of cortical maturation (*ibid.* p. 258 *et passim*), but also the transmission, balance, rate and flow of neuromodulators such as serotonin, noradrenaline or dopamine in response to certain categories of experience. Enhancement and inhibition of neural (and therefore cognitive and emotional) growth is achieved by the empathic 'mirroring' of an infant's emotional excitement on the part of the primary caregiver (*ibid.* pp. 80-82). Inhibition in this sense is not necessarily negative or 'oppressive'. An appropriate moderation of excessive levels of excitement is crucial in mediating affective response and controlling levels of hyperactivity that can lead to emotional distress. What matters is how this inhibition is communicated and achieved. Positive inhibition on the part of the primary caregiver is accomplished by carefully modulating responses to the infant's behaviour in such a way that the infant's fragile sense of self or well-being is not violated. Periods of emotional or physical separation in the dyadic relationship must always be followed by periods of 'rapprochement' or reunion that re-establish and reaffirm intimate bonds (*ibid.* pp. 99-113). Failure to do this may increase the infant's experience of separation anxiety and, if such failures are constant and protracted, may aggravate fears of abandonment, loss and even annihilation. These fears, as we have seen, have their roots in the generic trauma of birth. The dyadic relationship with the primary caregiver is the first and most important step in the annealment or reinforcement of this trauma.

The maximum possible annealment of the '*initial alienation that is the heritage of birth*' (Gruen 1999b) is the aim of what Winnicott called 'good-enough' parenting. The desire to anneal is instinctual for caregivers possessing *empathy* in childrearing - the capacity to regress sufficiently to a child's affective state in order to assist the child in overcoming the emotional challenges presented by the process of maturation.

Withholding of empathy and failure to establish positive reunions when necessary can often be a conscious or subconscious ploy to *increase* fears of loss, abandonment and annihilation in the growing child and aggravate feelings of helplessness in order to inhibit individuation and ensure lifelong dominance on the part of the parent. This process is frequently compounded by punishment, whether emotional or physical, administered in the name of 'love' and 'for your own good' (Miller, 1983). Caregivers who do this often unconsciously re-enact the dependency relationship they experienced with their own parents. It is a well-known fact in psychoanalysis and family systems theory that even if a person strives to 'break away' from parental modes of childrearing through individuation, the rearing of that person's own children all too often induces subconscious regression, not to a state of empathy with the new child, but to the repressed traumatic memories of that person's *own* early childhood. Early fears of loss, abandonment and annihilation cause that person to perceive the new-born child as that person's own former parent and to look to the *child* for the parental love and protection denied to that person in infancy. To do this it is necessary to dominate the child by maintaining him/her in a state of overly-protracted dependence and inducing a state of 'learned helplessness'. The need to dominate is thus induced by the mechanism of reversed *transference*. Transference is a psychoanalytic term referring to the inappropriate transferring of emotions directed towards a particular person in an individual's past to a person in that individual's present. The classic instances are when an individual perceives another as a *father-figure* or *mother-figure*. Transference, and its complement, countertransference, are deeply involved in dominance-submission relations (see below).

The relationship between caregiver and child is mediated through what Schore calls 'gaze transactions' (*ibid.* pp. 71-91). It is through internalisation of the caregiver's affective response as expressed in 'the look' that the infant becomes *imprinted* with the affective bias relevant to a given socioemotive situation. From the evolutionary perspective, the primary caregiver is an agent of natural selection through which the child learns the adaptive strategies of socialisation and exploration that played such a key role in the emergence of the species (Schore *op.cit.* pp. 253-59 and ch.6, this study). From the psychohistorical perspective, the caregiver is also the primary instrument through which cultural biases and defences are first inculcated in the child (*ibid.* pp. 280-82). Socialisation strategies and cultural defences emerge through the child's creation and retention of mental *representations* (Siegel 1999 pp.160-207). These constructs are memories containing implicit (unconscious), explicit and episodic components whose interactions create dynamic images of critical socioemotive events (involving gaze transactions) that have occurred during the dyadic relationship. These representations are encoded through structurally-stable flows within neural networks (see ch.7) - this is what is meant by *imprinting*. Unlike the molecular, cellular and somatic encoding of early prenatal experience, socioemotive encoding within the context of the dyadic relationship is far richer and more complex, involving elements of the dynamic unconscious, which has already begun to emerge when the infant is between 12 and 18 months old (Schore *op.cit.* p. 281; Gergely 1992). By this period of late orbitofrontal development, experience-sensitive myelinisation of maturing neural networks is virtually complete (Schore *op.cit.* p. 221). Myelinisation greatly enhances the speed and coherence of signal propagation in neural networks, but in the sealed and homogeneous intrauterine environment the field of external stimuli was necessarily limited. Consciousness, while

present and active, did not as yet require multimodal and highly-differentiated levels of perception. After birth, external stimuli are obviously far more numerous, diffuse and complex, requiring ever increasing levels of perceptual discrimination. Myelinisation thus assists in the differentiation and encoding of the complex stimuli that contribute to the formation of mental ·representations ‹and ·stabilise their structures. These representations are still preverbal, and contain deeper subchreods originating in the limbic substrate (*ibid.* p. 274 and Fig.4.6 below), linking them to the earlier generic base of pre- and perinatal trauma. By the age of 18 months the primary paranoid-schizoid mechanisms have already been refined and are employed in the creation of such representations. These mechanisms include 1) *splitting* (where a mental construct is divided or split into two part-structures, each containing an emotional valence of 'good' or 'bad'), 2) *dissociation* (where two often contradictory mental constructs co-exist without integration - similar to splitting, but in dissociation, one or other of these constructs is repressed deep into the unconscious), 3) *projection* (the 'translation' of part of the self into an object or person in the outer environment) 4) *introjection* (the reverse - the absorption or integration into the self of the meaning of some object or person in the outer environment - projection and introjection seldom function separately but are usually aspects of a single interactive dynamic within the context of any given representation), 5) *reaction formation* (through which an unacceptable impulse is avoided through exaggeration of its opposite), 6) *denial* (in which some painful experience, impulse or aspect of the self is scotomised or ignored), and 7) *displacement* (in which emotional valence is detached from some   construct and heavily invested in another). "*The representational construct*" says Schore, "*is now visualised as a possible bridging concept between psychoanalysis and neuroscience*" (*ibid.* p.315). Preverbal representational structures (also referred to in the present study as meme-complexes or memetic structures) can be profitably explored using concepts from nonlinear dynamic theory to be discussed in ch.7.

Gaze transactions both stimulate and inhibit neural growth along selected pathways, moulding the responses of the infant in accordance with attunement to the primary caregiver, her/his personal psychic structure, and with the exigencies of cultural bias. They serve to enhance approved responses to culturally-sanctioned behaviour and to dissuade culturally-inappropriate impulses or behaviour. Gaze transactions accomplish this through the induction of feelings of *shame*. Shame dynamics are the engine of socialisation (*ibid.* pp.199-212, 240-48, 485 *et passim*). Through moderate and sympathetic application, the inculcation of shame plays a necessary role in the regulation of affect and the accommodation of behaviour to at least the minimal standards required for successful social interaction. If infant-caregiver attunement is high, mutually-balanced and positive, shame dynamics need not be destructive but can encourage empathy and sensitivity to the needs of others. On the other hand, the destructive inculcation of shame can also be used to increase anxiety and augment fears of loss, separation and annihilation arising from the residual substrate of terror created by pre- and perinatal experiences. This may serve to increase the child's dependence, to enhance the power of the parent (see above) or, when compounded through neglect or indifference, to distance the child from the parent for some reason or another. Shame-induced mental representations formed by the age of 20 months, built upon the archaic substrate of generic trauma and reinforced or annealed in the context of caregiver

relationships, become a crucial key to the understanding of power relations (Lindner 2000a-g, 2001a-f, 2002a-d, 2003a and 2003b).

The period of growth extending from 18 months to 2 years of age, involves three factors: the first brief phase of sexual maturation prior to the onset of latency, the development of abstract (as opposed to nominal) language and the forging of relations with those outside the immediate sphere of the primary caregiver. The dominant focus of these relations within the *nuclear* family will be the father and other siblings. This is the time of onset of the so-called oedipal conflict. The 'sexual' component of this conflict, as formulated by Freud (1913), is generally misunderstood. It would be more accurate to describe the 'oedipus complex' as a *network* of complexes involving the child's increasingly mature encounters with the laws and exigencies of culture - the continuing socialisation process through which culture seeks directly to mould and shape the active consciousness of the individual. We have seen how this process was already begun during the dyadic relationship between child and caregiver, but now the abstract, preverbal experiences encoded within representational structures during this earlier period become *semantically-fixed* and, in the patriarchal family, reinforced through the authority of the father-figure. This is the reinforcement (not the origin) of the Freudian *superego*. As in the earlier period, the induction of submission to paternal authority is accomplished through shame-inducing dynamics only now the unconscious affective patterns imprinted earlier become increasingly reinforced and structured by *language*.

Infant speech begins with the babble. Although controversy still surrounds what is known as the 'babbling drift hypothesis' (Thevenin *et al.* 1985) the 'articulative explosion' that occurs in infants beginning at about 3-4 months of age has neither been deeply investigated nor satisfactorily explained (Locke 1983; Cairns & Valsiner 1984; Carroll 1986). René Thom refers to this event as *'a kind of melting, a generalised catastrophe...the need to expel by the process of articulation some of these alienating genetic forms, clearly a playful emission of forms, not a capture of forms'* (Thom 1989 p. 310) - i.e. the initiation of chreodic unfolding through language (*ibid.* p.118). At the onset of the babbling phase, linkages are established between the primary *prelinguistic* perceptual apparatus and the actual speech processing centres - Wernicke's Area with respect to semantics and Broca's Area with respect to syntactic structure. Both of these areas are linked in turn to more archaic neural structures such as the basal ganglia and reticular formation - sites which facilitate the cellular imprinting of early generic trauma through neurotransmitter flow (Edelman 2000 pp. 42-7). These archaic structures play critical roles in the formation of *primary epigenetic rules* (Lumsden & Wilson 1981) since they constitute the genetically-derived template through which later unfoldings expand and become modified by experience (epigenesis) during early post-natal development. Comparison of the epigenetic 'deformation' of early representational structures (unfoldings) through traumatic experience with their later, expanded roles in cultural and behavioural evolution suggest that simpler, more basic unfoldings are linked to the earlier, amygdalan-based memory system from the first, while their 'higher-level', more complex (but less stable) unfoldings through the hippocampal and cortical memory systems occur during later cognitive development. This scheme of linkages is shown in Fig.4.6 below - an expansion of LeDoux's diagram of the 'implicit memory system' (LeDoux 1966) supported by Bruter's later conclusions on the neurobiology of speech

mechanisms (Bruter 1976 p. 82) and Wildgen's on the generic sequence or 'enfielding' of mental representations (Wildgen 1982 p.105).

Fig. 4.6: The Expansion and Semantic Fixing of Implicit Memories (synthesised from LeDoux 1966; Bruter 1976 and Wildgen 1982).

Once multiple two-way (efferent-afferent) linkages are established successively between the reticular formation, the basal ganglia, the limbic system and orbitofrontal cortex, the stage is set for the encoding of representational constructs through the influence of sociocultural 'memes'. The vocal apparatus at this time is a 'tabula rasa' as regards selectivity - the infant runs through the entire range of phonemes the human vocal apparatus is capable of as a preparatory step towards integrating with the linguistic environment. Final selectivity and reinforcement is a gradual process extending over as much as two years and occurs through interaction with primary caregivers and others consistently present in the growing child's environment. Phonemic possibilities remain open for a longer time, but many phonemes gradually become excluded from the child's repertory in a manner analogous to neural apoptosis - the selective pruning of some neural connections and the Hebbian reinforcement of others in response to the child's experience. By means of selection, pruning and reinforcement, preverbal mental representations become gradually structured through language. Words become law. Shame, fear or approval now become canonised through affect-laden semantics and the boundaries beyond which individuation or dissent are not permitted - on pain of shame, rejection and, by implication, the fear of annihilation (or symbolic castration) - are now clarified and strengthened through the inculcation of phrases that inhibit further thought. These phrases are associated with strong emotional scenarios and may be reinforced through the infliction of trauma, whether physical (assault, punishment) or psychological

(shame or abandonment). They play a major role in establishing social roles, gender identity and dominance-submission hierarchies.

This induction of the emotional substrates for dominance-submission patterns in early life and their reinforcement and codification through language - the Law of Canonicity of the Father - produce *constraint catastrophes* in the topology of neural network dynamics (ch.7). In terms of behaviour or cognition, this is a fold-like manifold that acts as an emotional barrier to further thought or action - the neurally-mapped equivalent of the Freudian superego. This barrier can be transcended - but at a price, and that price is entry into a schizoid or paranoid state where earlier fears of abandonment and annihilation threaten to overwhelm consciousness. The constraint catastrophe is therefore equivalent to the *schizoid barrier* in Kleinian theory. Successful transcendence of this barrier and accommodation with the fears that lie beyond it are prerequisite for truly innovative work - which accounts for the common association of 'genius' with madness'. The barrier operates at individual or group levels and determines the upper bound of *cognitive complexity* at which the individual or group can function in response to the complexity of the environment. In terms of *behavioural complexity theory*, cognitive complexity runs across a scale from unidimensional (the simplest) to metacomplex (Streufert & Satish 1997). The barrier affects not only the complexity of cognitive level but also the degree of flexibility along the scale - the capacity to shift from simple to complex according to the demands of the environment. Moments of stress encourage regression to the 'near side' of the barrier - well within internalised parental constraints - even to the infantile level of *splitting* - the unidimensional distinction of 'good' vs. 'bad'. At group levels, the schizoid barrier (or constraint catastrophe) is most clearly recognised in terms of religious, legal or political dogma, hence the adoption of the term *canonicity*. Historical groups display a constant fluctuation across this barrier, between paranoid-schizoid and manic depressive positions (Leech 1999), generating 'waves' of eventuation - of advance and retreat - throughout human history.

The seeds of dominance and submission are sown during the prenatal phase through the trauma of placental degeneration and birth, then 'watered' during the earliest phases of childhood, when generic trauma is compounded and reinforced through projective/introjective and transference/countertransference dynamics on the part of the parents - what Devereux refers to as *counteroedipality* (Devereux 1980 pp.122-37 - see ch.4 above). These dynamics are 'mirrored' by the helpless infant whose only defence is imitation. Rage arising from infantile helplessness in the face of neglect, trauma or shame-inducing dynamics, the frustration and forced internalisation of this rage through fear of the 'bad' parent's retaliation, compounded with guilt at one's rage towards the simultaneously 'good' parent (often induced through purposeful manipulation - "after all we have done for you..." etc.) - all this causes the desire for vengeance to be turned against any entity perceived to be *weaker* than oneself - whether younger siblings, playmates, animals or insects. This is one of the functions of projective identification. In punishing those weaker than oneself, one punishes the 'bad' parts of oneself that have been mentally 'expelled' and injected into the weaker. This is acceptable to the self since it pleases the internalised image of the punishing 'placental' parent (the superego) and (hopefully) diverts possible future punishment away from oneself. Hedonic *dominance*

(involving pleasure), is rooted in projective mechanisms, while hedonic *submission* arises through positive identification with the punitive superego and the introjection of its qualities - absorbing them into one's character structure in order to gain approval, love, protection from punishment and therefore emotional security. This is why the dominated so often seek to imitate the dominators, a process called 'identification with the aggressor', frequently observed in history between both individuals and groups (Freire 1990; Gruen 1999; Ka-Tzetnik 135633 (1967)).

4.6. The strengthening of representational constructs within and across families.

Families are the most socially-conservative forces in history (Scott & Ashworth 1969; Bowen 1978), called by Freud 'the germ-cell of civilisation' (*CD* p. 304). The transgenerational flow of representational (memetic) structures within families over time is a main psychological agent of historical change (Taylor 1974) and is the next most important level in the generalised psychohistorical matrix. The nuclear family, taken as an isolated compact unit, is a complex autopoietic (self-sustaining) system (Maturana & Varela 1987), maintaining self-regulation through the interaction and co-evolution of the representational (memetic) structures that define the relationship of each individual member to all the others (Ackerman 1958; Bateson 1972) - hence the term *family systems theory*.
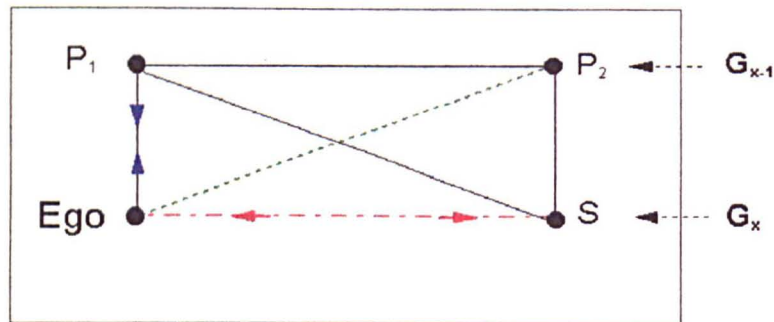
A 4-member nuclear family. 39 different types of relationship exist within any 4-group, of which only 3 are shown here. P = Parent, S = Sibling, G = Generation

Fig. 4.6: Interrelationship Patterns within a 4-member Nuclear Family.

Fig. 4.6 above shows a selected pattern of relationships within a 4-member nuclear family. In this digraph, Ego has a positive (hedonically submissive) relationship with one parent (P_1), a negative (agonically submissive) relationship to the other (P_2) and an ambivalent relationship to a sibling (S). We first consider Ego's (*E*'s) relationship to

his/her father/mother whom, for the sake of simplicity, we will designate as P_1. P_1 is no *tabula rasa* for the receipt of E's emotions, but a deep nexus of reflexive relationships involving projection/introjection and transference/countertransference between P_1, E (son or daughter), P_2 (wife or husband), the sibling S and P_1's own parents $(G_{x-2}(P_1 \leftrightarrow P_2))$. E's emotional perception of P_1 now involves a nexus of multiply-embedded relationships whose *basis* ($x \in X$) consists of the following elements:

$$E \to P_1 \to \{(E), (P_2), (S), (G_{x-2}(P_1 \leftrightarrow P_2))\}. \qquad\qquad \text{Eq.4.1.}$$

If I relate to my father with an unconscious (repressed) or conscious awareness of my father's other relationships, I might be simultaneously aware of how my father understands my own feelings towards my *mother's* perception of *my* understanding of my parents' marital relationship, which we may write as:

$$E \leftrightarrow (P_1 \leftrightarrow (P_2(E \leftrightarrow (G_{x-1}(P_1 \leftrightarrow P_2))))), \qquad\qquad \text{Eq.4.2,}$$

a syntactic embedding of the 'Freudian' oedipal conflict[5]. The similarity of these expressions to the embedding of raw LISP atoms in AI programming is significant.

This set-theoretic approach (following Laing 1971 pp. 55-57, 77-78, 117-24) can be developed further. If X and Y are sets, that is, individuals who have internalised certain memes, meme-complexes or archetypal morphologies (i.e. elements x and y of X and Y) that combine in a representational structure, then the projective function φ is a rule that translates each $x \in X$ onto a unique element of $\varphi(x) \in Y$. This is called a *mapping* of X onto Y, written $\varphi: X \to Y$, where X is the *domain* of the mapping and Y the *codomain* - the set within which the translated elements lie (the *range* Y of domain X is the set of actual *values* assigned to these elements - the actual meanings and emotional valence of each meme or meme-complex that form the mental representation). In the family context, φ is the mechanism of *projective identification* - the translation of parts of the self ($x \in X$) into another (Y). In considering the effect of φ on each $x \in X$ we write $x \mapsto \varphi(x)$, and the *image* $\varphi(x)$ created by φ is the subset $\{\varphi(x) \mid x \in X\}$ - as is often said in families, Jean/John is the 'image' of her/his grandmother/grandfather. Projection involves translating parts of the self (X) into another (Y) but the recipient (Y) is not 'filled' by this projection - Y contains many more elements available for other relationships, for re-projection or reverse projection (introjection) or for other subtle changes in relation to X in combination with other subgroups within the family. The operation $\varphi: X \to Y$ is therefore only partial and is called an *injective mapping* or *monomorphism*. But the operations of projection and introjection, as we have said, more often than not combine into a bijective mapping. Thus if $\varphi_1: X_1 \to Y_1$ and $\varphi_2: X_2 \to Y_2$ are functions, and if $\varphi_1(x) \in Y_2$ for all $x \in X$, then we define the *composition* $\varphi_2 \circ \varphi_1$ of φ_1 and φ_2 by $\varphi_2 \circ \varphi_1(x) = \varphi_2(\varphi_1(x))$ so that $\varphi_2 \circ \varphi_1$ maps $X_1 \to Y_2$. If Y also contains projected elements that X desires to internalise (as in the Kleinian analysis of the infant-caregiver dyad), then we can set $Y_1 = X_2$ and say that if $\varphi_1: X_1 \to Y_1$ and $\varphi_2: X_2 \to Y_2$ then $(\varphi_2(\varphi_1(x_1)) = x_1)$ and $(\varphi_1(\varphi_2(y_1)) = y_1)$ for all $x_1 \in X_1$

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[5] We write $(G_{x-1}(P_1 \leftrightarrow P_2))$ rather than simply $(P_1 \leftrightarrow P_2)$ to show that the emotional bonds linking P_1 and P_2 were already in place prior to the emergence of E and therefore function as a 'fused' construct, even though this construct may become seriously modified by E.

and $y_1 \in Y_1$, and call φ_2 the inverse of φ_1, written $\varphi_2 = \varphi^{-1}$: the mechanism of simultaneous *introjection*.
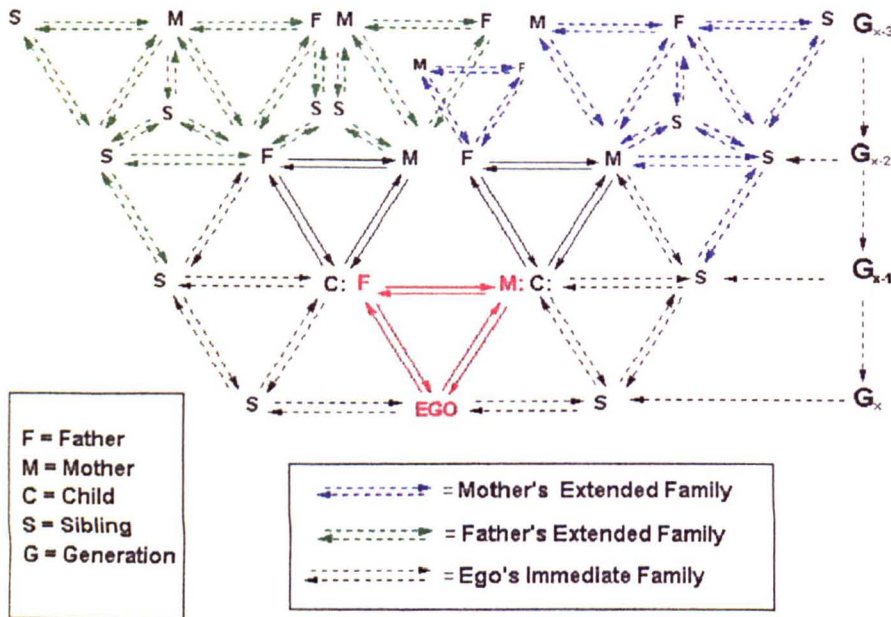

Fig. 4:7. Oedipal Matrix of the Family: family of orientation and family of procreation for an ego from generation G_{x-3} to 'Generation X' (G_x); each arrow symbolises a partial relation (Frenken 1999).

Nexified mental representations of this kind or of others, simpler or more complex, are communicated transgenerationally through the lattice of Fig. 4.7 above, mother↔daughter and grandmother↔granddaughter relationships being the most potent in view of the strong conservatism of childrearing modes (deMause 1999 pp. 651-52). The flow of constructs through and between various modes of the lattice can be envisioned as a time-series, i.e.:

$$ ... F(G_{x-n}) ... \rightarrow (F(G_{x-1}) \rightarrow F(G_x) \rightarrow F(G_{x+1}) \rightarrow ... F(G_{x+n}) ... $$

where F stands for 'family unit' (however defined). A critical topic for future transdisciplinary research might be the elucidation of the evolving structures of mental representations, canonical meme-complexes and dominance-submission relations over time, as well as their neurobiological basis.

Representational elements linked first through canonical meme-complexes and dominance-submission relations are expanded within the nexus of family relationships and stabilised through the assignment of *roles*. To maintain these roles and strengthen the

'womb-surround' of the family - the group boundary by means of which the family comes to perceive itself as a 'haven in a heartless world' (Lasch 1983) - the paranoid-schizoid mechanisms that tie the intricate knot of family relations must be repressed. Not only must the real nature of a relation be repressed - the very *act* of repression must be repressed, leading to a 'chain' of the repression of the repression of the repression etc. (Laing *op.cit.* pp. 96-98). This 'embedding' of successive acts of repression: R(R(R(R...))) is the way in which repression becomes deepened. This is a crucial point. *The deeper the repression, the less easily it is contained, and the further regressed in morphogenetic time the repressor becomes when confronted with this instability* (deMause 1982 pp.138-9; Wasdell 1985 pp. 5-6). The hypnotic trance experienced by Laing, induced in early infancy by 'the look' and reinforced in many cases by child abuse (deMause 1982; Berghold, 1991), is the state of infantile dependency in which families seek to entrap their members through role-enactment, but the embedding of successive acts of repression often involves representational constructs which may be mutually contradictory and whose combination is inherently unstable (Bateson 1972; Koopmans 2001). This in turn destabilises the more primitive base of paranoid-schizoid defences, creating pathways for the eruption of residue from the core of generic trauma and pushing the repressor towards a state of increasing helplessness, extending regression beyond the actual period of infancy and the 'event horizon' of birth to the intrauterine state itself. Hence the definition of family (and later group and national) boundaries as a 'womb-surround' (deMause *op.cit.* pp.144, 297). Laing's trance is therefore a condition, not of *infantile* dependency, but of *fetal* dependency - the 'archetype of being' as Wasdell calls it (*op.cit.* p. 5) - and the origin of the 'social trance' in group process. (deMause *op.cit.* pp.144-6). For repression to be contained as far as possible within the family 'womb-surround', the members must unconsciously collude with one another in the mutual introjection of their assigned roles (Laing *op.cit.* p. 99), transforming the family into a *transpersonal system of collusive relations* (*ibid.*), the archetype of the psychological group and the crucible of psychoclass formation. Here we need to distinguish carefully between *psychoclass* and the psychological *group*. Both psychoclass and group dynamics are defined by the interaction of generic trauma, postnatal care and family role assignment, but psychoclass dynamics differ from those of the group by the depth of repression involved. To refine the concept of psychoclass, we need to discover how family roles come to be differentiated and assigned to each successive sibling.

"*If a mother has 8 children*" writes Winnicott, "*there will be 8 mothers*" (Winnicott 1986 p. 40). Frank Sulloway, in a major study of intrafamilial relations (*Born to Rebel*, Sulloway 1996), has carefully researched 10 factors which he considers to be major influences in parent-sibling and sibling-sibling relationships. These factors are: birth order, sibship size, age spacing, heredity, character (of parent and sibling), degree of parent-sibling conflict, intrafamilial social attitudes, social class, gender relations and the timing of parent or sibling loss. The personality traits analysed are grouped into 5 major 'dimensions' that seem to recur everywhere in international personality testing (McCrae & Costa 1987), and which probably have evolutionary origins (Buss 1991; Kagan 1994 pp. 42-46). These are 1) extraversion/intraversion, 2) agreeableness/antagonism, 3) conscientiousness, 4) neuroticism (degree of emotional stability) and 5) openness to experience (Sulloway *op.cit.* pp. 68-74). Concise, comprehensive and deftly evidenced, this study applies meta-analysis to a wide array of sources and uses multiple regression

and correlation techniques in testing each and every relational factor in combination over an extensive range of sample sizes drawn from a variety of historical contexts to reach the following conclusions:

A. Regarding *personality, firstborns* have a tendency to be 1) "*more conforming, traditional and closely tied to parents*" ($N = 43$, $z = 13.19$), 2) "*more responsible, achievement-oriented, organised and planful*" ($N = 45$, $z = 12.14$), 3) *laterborns* are more "*easygoing, co-operative and popular*" ($N = 31$, $z = 8.44$), 4) firstborns are "*more jealous, anxious, neurotic, fearful and likely to affiliate under stress*" ($N = 48$, $z = 7.68$) and 5) "*more extraverted, assertive and likely to exhibit leadership*" ($N = 29$, $z = 5.01$)[6]. This last correlates not with sociability, but with propensity to aggressive dominance (pp.74, 148, 371 and 3) above). From this it follows that:

B. In *science*, firstborns are a) less open to scientific innovation, although willing to initiate and support technical innovations within a well-established paradigm (pp. 39-44, 347-48), b) are particularly aversive to innovations with radical ideological tendencies (such as heliocentricity, evolution or the new reproductive technologies of today) - but will support such innovations if and only if they become 'scientifically respectable' (pp. 37-48, 346-440) and c) especially prone to initiate or support conservative theories (such as eugenics or vitalism) that sustain or promote the social order (pp. 38-42, 332). For most historical firstborns 'biology was destiny', reflecting, among other things, their passionate concern with inheritance laws.

C. In the *social* and *political* domains, firstborns are generally a) politically conservative and reactionary (pp. 294-96, 425-27), b) more prone to support capital punishment and other aggressive measures in the interests of preserving the social order (pp. 285-6, 306-26) and c) less sensitive to the needs of the underprivileged or the dispossessed, although willing to provide (or at least simulate) support for social reform within the permissible boundaries of the prevailing social system or party policy (pp. 286-89). 'Tender-minded' firstborns will therefore be either 'left-wing' conservatives or 'right-wing' socialists.

In general, firstborns are a) less explorative, less willing to travel widely - i.e. less open to new experiences, b) less capable of empathy, especially towards those of lower social standing, and c) more prone to unidimensional thinking (dichotomisation) on the Streufert-Satish Scale of behavioural and cognitive complexity (Streufert & Satish 1997). Laterborns on the other hand are more prone to rebel, more likely to initiate radical scientific, social or political revolutions, are more explorative and willing to seek out new experiences, show greater empathy and understanding towards the oppressed and tend to exhibit greater laterality of thinking, approaching the 'metacomplex' level on the Streufert-Satish Scale (*ibid.*).

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[6] for all results pooled, $z = 20.19$ while all statistical comparisons were significant at p < .005 (*ibid.* p.73).

Born to Rebel is in many ways an exemplary study in statistical psychohistory, but Sulloway's exclusively Darwinian interpretation of family dynamics tend to obscure the deeper roots of the relational structures he so capably elucidates. What deeper factors underlie Sulloway's conclusion that firstborns are inherently disposed to accept parental and cultural constraints? I would suggest that levels of *generic trauma* play a significant role in the differentiation of siblings. *Cervical dilation in the primipara* (a woman giving birth for the first time) is far more difficult than for mothers giving birth to their second or third child. Given the degree of stress and fear experienced by most primiparae at the onset of labour, (compounded perhaps by other negative factors during pregnancy) we would expect firstborns to be more traumatised by the birth process than laterborns. In addition, levels of post-partum depression are generally higher after delivery of a firstborn, and the period of postnatal care and infant-caregiver bonding are often fraught with greater anxiety due to inexperience, insufficient maternal support, interference by 'well-meaning' relatives and inadequate counselling. These secondary factors will compound rather than anneal the primary effects of birth trauma, exacerbating the paranoid-schizoid anxieties of the firstborn to a greater degree than for later siblings[6]. Sulloway's birth-order hypothesis would seem to offer independent support for the role of generic trauma in human psychogenesis.

Sulloway refers in passing to the attachment theory of Bowlby as a supplementary factor in the assigning of roles within the family and in eliciting sibling strategies in response to this assignment (*op.cit.* pp.120-21). I would suggest that attachment is a key factor in view of its power to augment or anneal generic trauma. We have seen that Schore (1994) has gone far in elucidating the neurobiological basis of attachment theory, role creation and assignment. Siegel (1999) in turn examines the correlation between classifications of the *Adult Attachment Interview* (AAI) as developed by Mary Main and Judith Solomon (Main *et al.* 1985; Main & Goldwyn 1984, 1998) and corresponding patterns observed in *Infant Strange Situation* behaviour (or ISS: Ainsworth *et al.* 1978; Main & Solomon 1990). The AAI defines 4 classes of adult predisposition to attachment based on the recollection of childhood experiences with the primary caregiver. These are: 1) *Secure/autonomous* (F), 2) *Dismissing* (Ds), 3) *Preoccupied* (E) and 4) *Unresolved/disorganised* (U/d). The ISS in turn defines 4 classes of infant response to simulated situations of brief abandonment. These are 1) *Secure* (B), 2) *Avoidant* (A), 3) *Resistant or Ambivalent* ((c) and 4) *Disorganised/disoriented* (D). Main *et al.*'s original findings for the AAI classes F-U/d as reported in detail by Siegel (*op.cit.* pp.74-120) correspond to and correlate strongly with, ISS classes B-D respectively. The various dyads (F-B, Ds-A, E-C and U/d-D) also correspond closely to Sulloway's classification of personality traits within various sibling sequences, controlled for the 10 major factors that go to make up the core variables in the Sulloway study. Sulloway also demonstrates that sibling mate selection correlates strongly with the personality traits, attachment modes and role assignments determined by birth-order - firstborns tending to marry firstborns and laterborns, laterborns (*op.cit.* pp. 433-34, 518-19 n.79). This kind of marital matching

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[6] In all of Sulloway's trait analyses, only children (i.e. those without siblings) tend to score median levels between the extrema of firstborns and laterborns. The reasons for this are clear enough - while suffering the same levels of generic trauma as firstborns, increased parental focus and lack of sibling competition will anneal this trauma to a greater extent than for the first of a sibling sequence.

serves to reinforce 'traditional' role assignment within families through successive generations and to perpetuate the representational structures of each role transgenerationally over time.

How do intrafamilial relationships and role assignment become extended to wider social groups, leading to the emergence of psychoclass[7] structures within the wider society? Fig. 4.8. below shows how projective-introjective mappings are gradually transferred from the family nexus to the wider social group during maturation (cf. Fig. 4.6):
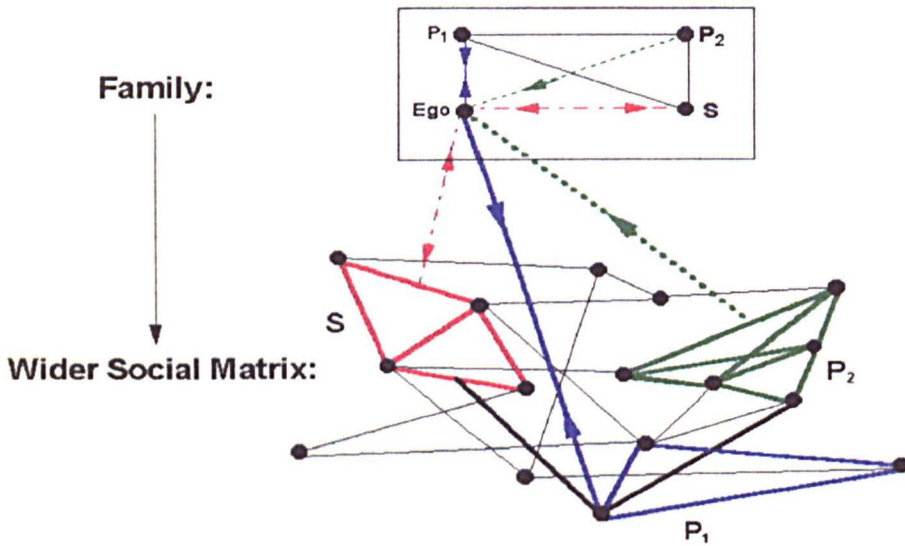

Fig. 4.8: Transference and expansion of familial roles to the wider social matrix

In Fig. 4.8 Ego has a positive (hedonically submissive) relationship with one parent (P_1), a negative (agonically submissive) relationship to the other (P_2) and an ambivalent relationship to a sibling (S). The black dots are all individuals linked by a variety of emotional relationships, positive, negative or ambivalent (not shown). They are also linked into groups (bold lines), whether unibonded, multibonded, homogeneous or heterogeneous (not shown). These groups could be schools, workplaces, social clubs, political parties etc. It can be seen that Ego has transferred the positive aspects of her/his relationship with P_1 onto an individual member of a tripartite group - who may represent a mother- or father-figure - and possibly, by extension, to that entire group. Ego has also transferred the negative aspects of his/her relationship with P_2 onto an entire five-member group (the numbers are only for convenience - the group could represent an entire organisation such as a school or company), and the ambivalent relationship with the sibling S onto a third group - possibly a gang or social club where Ego can exercise dominance relations over a member or members similar to those he/she once exercised in relation to S.

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[7] Psychoclass formation is discussed further in ch. 5 and 6.

Chapter 5. Group Process and Psychoclass Formation

5.1. A brief history of group process studies.

By the end of the first decade of the 20th century, the French sociologist Émile Durkheim had developed the concept of *anomie* - the alienation felt by an individual deprived of the sense of 'belonging' to a community, while the British psychologist William McDougall had identified what he termed the 'collective inhibition of intelligence in groups' (cited by Freud in *GPE* p. 13) - an early allusion to the state of regressive dependency frequently experienced by people in a group situation, a dependency often purposefully induced and exploited by leaders. McDougall's work was cited frequently by Freud (*GPE, CD* and *TT*) who focused on the libidinal ties binding group members together and the displacement of this collective libido onto the leader. Freud's more socialistically-inclined rival, Alfred Adler, asserted on the other hand that the hidden source of group dynamics lay in intragroup relations of dominance and submission (Adler 1918; 1930). The views of Freud and Adler are neither incompatible nor mutually exclusive. What was less obvious in earlier years was how the polymorphous libido of the infant and the drives to dominate and submit all share a common substrate within the pre- and perinatal matrix, and that the expression of these drives becomes compactified and refined through early dyadic relationships and the later interplay of family role-structures. Species narcissism forbade (and still forbids) any probing of the primitive residue that forms the kernel of shared emotion in groups. Nevertheless, the later history of group analysis is a history of convergence towards this very residue.

Prior to WWI, the British psychoanalyst John Rickman had begun investigating unconscious processes in groups among leaderless Quaker assemblies and later in 1918 studied the group psychodynamics of newly-formed village soviets following the Russian Revolution (Pines 1983 p. 202). Rickman, who was also aware of Trigant Burrow's exploratory work in group therapy during the 1920's later became one of Wilfred Bion's most influential teachers and was a source of inspiration to members of the UK-based 'invisible college' that went on to found the Tavistock Institute following WWII[2]. After WWI the studies in group process and mass psychology began to branch out into a number of different currents, each with a particular emphasis or perspective. Fig. 5.1 below gives an approximate overview and placement in time of the evolution of these currents over the course of the 20th century.

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[2] Other members of the 'invisible college' included Joshua Bierer, H.E. Bridges, Henry Dicks, S.H. Foulkes, Ronald Hargreaves, the Canadian Major Elliott Jacques, Maxwell Jones, John Kelnar, T.P. Rees, Ferguson Roger, J.D. Sutherland and A.T.M. Wilson (Pines *op.cit.* pp.202-3).

Key:
= Focus of Chapter
= Main Psychoanalytic Currents
= French Psychoanalytic Sociology
= Rationalised Process
= Field Theory & Topology
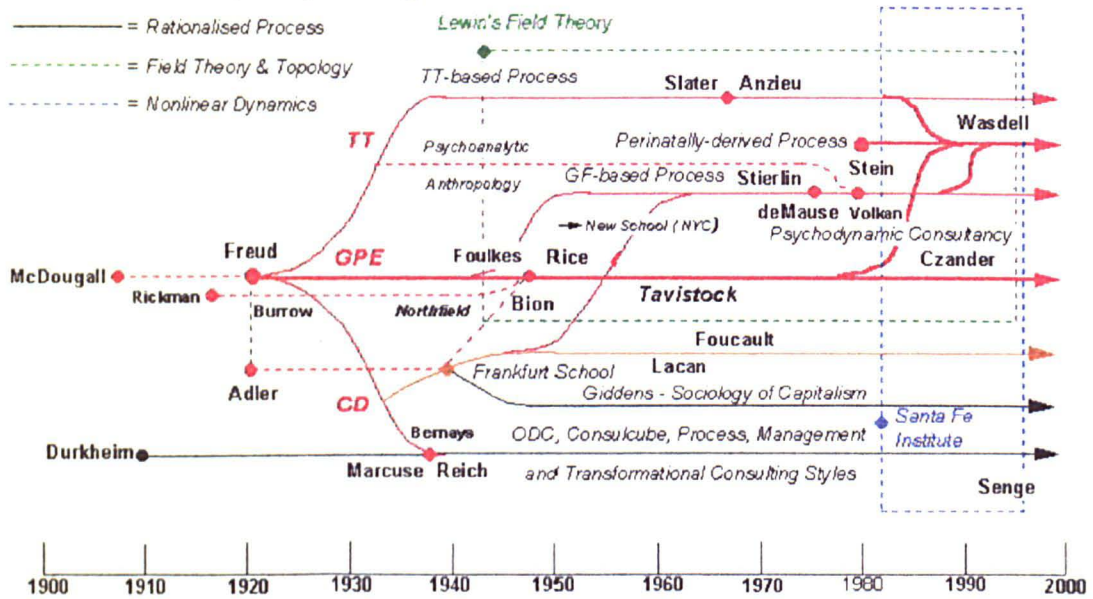= Nonlinear Dynamics

Fig. 5.1: Expansion of Main Currents in Group Process Studies over the 20th Century.

The chart does not pretend to be complete - its purpose is simply to indicate the extent to which certain lines of research (red and orange) adhered more closely to psychoanalytic paradigms and remained pre-eminently hermeneutic and therapy-oriented in their focus upon the psychological group while others (in black), intent on the more explicit clarification of problems relating to organisational structure and function, as well as consumer relations, shifted towards a more 'results-oriented' approach in the quest to improve motivation and efficiency in the workplace. There are no fundamental ideological splits in these divergent approaches, although it could be argued that they differ in the degree of defendedness they exhibit in relation to the psychodynamic roots of group experience, the bold red lines of the upper right tending to converge ever more closely onto the 'event horizon' of generic trauma. Nevertheless, there has been such cross-fertilisation between these various currents in recent years, catalysed in large part by increasing levels of anxiety and paranoia in global society, that one could consider the generic lines of Fig. 5.1 to be convergent rather than parallel. The concepts and methodologies developed recently within the emergent field of complex dynamic systems theory reactivated an interest in Kurt Lewin's earlier work on social field theory (Lewin 1951) and have encouraged greater consilience between these various approaches. Although the study of group process is in many respects still in its infancy, it has remained more open to transdisciplinary insight than was the case with the earlier 'classical' psychoanalytic networks.

Three main psychodynamic approaches evolved from lines of questioning developed by Freud in *Totem and Taboo* (*TT* - 1913), *Group Psychology and the Analysis of the Ego* (*GPE* -1921) and *Civilisation and its Discontents* (*CD* - 1930). In *CD*, Freud propounded the idea that 'civilisation' (i.e. Euroamerican) had evolved through the repression and directed sublimation of instinct. The work of Reich and Marcuse carried this idea to an extreme, stressing the intensity with which 'society' (again, Euroamerican) sought brutally to enforce the repression of 'natural' instincts in the interests of power - especially the instinct of sexuality. When Freud's nephew Edward Bernays persuaded governmental and business organisations of the utility of the psychoanalytic approach in probing the instinctual basis of mass behaviour, the manipulation of consumer demand and testing the efficacy of advertising techniques, it was the theories of Reich and Marcuse, merged with the ego psychology of Kohut, that initially had the greatest influence on corporate psychology and 'operations research' through links with 'human potential' training centres such as the Esalen Institute. In an increasingly turbulent and unpredictable post-war economy, the very success of psychoanalysis in this domain made it vulnerable to the demands of the 'bottom line' which sought 'quick-fix' solutions at the expense of any longer term analysis of the complex nature of group process or of any deeper understanding of the true nature of the society in which we live. At the same time however, *CD* provided the theoretical basis for the more radical critique of capitalism emerging from the Frankfurt School (Fromm, Horkheimer, Marcuse, Adorno) as well as for Giddens' sociology of capitalism (Giddens 1991) and the later deconstructionist theories of Lacan, Foucault, Deleuze and Guattari.

In *GPE*, Freud advanced the hypothesis that a pooling of shared, unconscious desires among members of a group leads to the emergence of a group *libido*. This libido is projected onto the group leader, whose qualities are then introjected back into the group and internalised by each of its members, so that leader and led become bound within a net of mutual interdependence. How was this hypothesis to be observed and tested clinically? The most significant work in this area began in the UK following the immigration in 1933 of the German-Jewish analyst Siegmund Heinrich (Michael) Foulkes (1898-1974). Prior to his emigration from Germany, Foulkes (formerly Fuchs) had matured within the intellectual climate of the Frankfurt School. He was well acquainted with the anthropological studies of Malinowski and Róheim and those of Erik Erikson, which he cited frequently in his own writings (Foulkes 1985; Pines *op.cit.* pp. 265-66). Taking a great interest in the social field theories of Kurt Lewin (Lewin 1951), Foulkes later pioneered many techniques employed in long-term group therapy, created much of the contemporary terminology associated with group analysis and made crucial preliminary observations concerning the psychodynamics of small groups - notably, that individual pathologies, however severe, tend to become subsumed and 'normalised' within collusionally-defensive structures erected by the group (Foulkes 1948; Pines *op.cit.* pp. 267-85)[3]. After gaining British medical qualifications in 1936, Foulkes began working with war-traumatised soldiers in Exeter in 1940, then was posted to the Northfield military hospital in Birmingham in 1942 where Bion had already begun his famous experiments in small group analysis and therapy. What is less generally known is that

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[3] This same phenomenon was recently observed by Vamık Volkan at the orphanage for Palestinian children at Biet Atlal Al-Sommoud in Tunisia (Volkan 1997 pp.146-51).

Bion's pioneering technique, which sought to encourage the self-motivated maturation of small groups *outside* the strictures of military discipline, antagonised the hospital administration, leading to his being sacked (Pines 1983 pp. 204-6). Foulkes was able to re-establish a degree of concord with the military authorities and would henceforth stress the administrative duty of the therapist in ensuring smooth co-operation between the institutional structures of a hospital and the therapeutic community working within (*ibid.*). Nevertheless, during his brief tenure at Northfield, Bion was able to observe and record those insights that were later to have such a major impact in the field of group analysis (Bion 1961).

In applying group therapy as a tool for trauma annealment, Bion came to develop his theory of the three basic assumptions that form the unconscious substrate of the psychological group. These assumptions are 1) that of *dependency*, 2) that of *fight or flight* and 3) that of *pairing* (Bion, 1961, pp.105-111). In 1974, Pierre Turquet proposed a fourth assumption, that of *transcendence,* in which "*members seek to join in a powerful union with an omnipotent force, unobtainably high, to surrender self for passive participation, and thereby to feel existence, well-being and wholeness*" (Turquet 1974 p. 357). Assumptions 1 and 2 derive from the earliest phase of infantile dependence while Turquet's assumption is rooted in prenatal experience, relating to the phase of intrauterine symbiosis prior to the onset of placental degeneration and transition to birth. Assumption 3 (pairing) derives from the oedipal drama - the group's desire to become independent of the leader through the sexual union of two selected members who will together produce the 'group saviour' - the 'alpha male-alpha-female' bonding found among many mammalian groups and the subservience of other members towards the dominant pair. All these assumptions are reinforced by evolutionary factors (ch. 6) and are *unconscious.* They are never explicitly stated, they may shift within the group - even many times within one 'meeting' - and follow no predetermined sequence (Slater 1966). The most important effects they produce are a) an elicited countertransference from the leader which will reinforce hedonic dominance in that leader if his or her intrapsychic defences complement those of the group or agonic dominance if they do not, and b) tyranny towards its members - i.e. 'peer pressure' to conform to the group's emotional needs. The group's transference is therefore the source of the group's control of the leader - power is *invested* in the leader through assumption 1 (Czander 1993 p. 268) and if the group's needs for dependency and nurturance are not made, the assumption may shift to 2 or 3, resulting in the effective deposition of the leader (simulated regicide). Long-term need concordance between leader and led is sustained primarily through assumption 4, as can be seen in the workings of monastic, religious or cultic groups (Meissner 1966; Ziolo 2002). The constant interplay of these assumptions within a group situation has led to their being collectively termed the *Bion construct.* Bion's work was to prove highly influential in all later psychodynamic studies of group process, the assumption construct providing an implicit framework for analysis of group behaviour at all levels. Bion's collected papers were published by the Tavistock Institute in 1961 (Bion 1961) and in 1985 Malcolm Pines edited a collection of key papers chronicling the extent and depth of Bion's influence in Europe and the Americas (Pines 1985). Bion drew heavily upon Kleinian theory in developing his ideas, stating that "*my present work ... convinces me of the central importance of the Kleinian theories of projective identification and the interplay between the paranoid-schizoid and depressive positions. Without the aid of*

these two theories I doubt the possibility of any advance in the study of group phenomena" (Bion *op.cit.* p.8).

Earlier, in *TT*, Freud had mythologised the psychohistorical origins of the archaic social structure known as the 'primal horde' and had concluded that all transcultural manifestations of the oedipal conflict had evolved from this primitive substrate. During the 1950's, Philip Slater had initiated process studies at Harvard involving small training group encounters and had begun to explore what he called the *'structural, psychological and religious evolution of groups'* in a series of controlled sessions lasting several months (Slater 1966). Slater's studies of the maturation process in groups reached more provocative conclusions than the more controlled experiments of Foulkes at Northfield. Appealing to a rich and diverse array of interpretative sources, Slater sought to show that the primal horde hypothesis *"reflects a systematic process rather than an historical event"* (*op.cit.* p.4), using it as a basic paradigm to illustrate how intragroup dialogues draw upon mythological and cultural symbolism to express unconscious group fantasies of deification, oedipality, regicide, seduction, fertility, sacrifice, ritual execution, group-bonding though orgies, transcendence and immortality. Slater's transcripts show evidence for the subliminal eroticisation of teaching and the transference of knowledge (*ibid.* pp. 99-109) as well as the close binding of sexuality at all levels with themes of dominance and submission (*ibid.* pp. 89-98 *et passim*). Slater's achievement was to demonstrate the fluidity of the Bion construct within the group situation - how the assumptions can appear in specific sequences or in combination in order to express the fantasies of a given moment or phase in the group's development - and, above all, to show that as group members break down mutual barriers and become more intimate and attuned to one another, they tend over time to recapitulate the religious evolution of the species at the microlevel (*ibid.* pp. 219-33, 248), hence Slater's title - *Microcosm*.

During the 1970's, the French analyst Didier Anzieu and his colleagues extended the study of *TT*-based dynamics to larger groups. Also working through a series of controlled encounters between group and 'monitor', Anzieu drew upon Kleinian theory and the Freudian construct of Id, Ego and Superego to demonstrate (as Bion had done before) that when the role of the 'strong' leader is replaced by the more ambivalent one of the exploratory psychoanalytic 'monitor', group boundaries become unstable and anxieties increase, inducing a deeper collective regression in which more primitive emotions and fantasies are likely to be unleashed and become open to analysis (Anzieu 1985). Boundary instabilities and anxiety reinforcement are provoked by the monitor's refusal to assume the role the group expects from the leader. This phenomenon had occurred previously in Bion's group sessions at Northfield (Bion *op.cit.* pp.18-19), permitting Bion to observe for the first time the emerging assumptions that came to form the basis for his theories. Lawton criticises Anzieu for not providing a clearer idea of how these fantasies are structured, how they evolve and relate to one another (Lawton 1988 p.197) but it would appear that the situations Anzieu created may have provoked the emergence of that further 'threat to identity' (assumption 4) which Turquet had previously observed in the context of the large group (Turquet *op.cit.*). Moreover, given the high dimensionality of interrelationships in the large group (Wasdell 1985, 1990 - see below), the fantasies that evolve are more numerous, fractured and turbulent than would be the case with either Bion's or Slater's smaller groups, especially if there is no clear 'focus' or stable authority

figure to evoke and maintain the trance state, thereby controlling and directing the emergent fantasies of the group through assumption 4. Independently of deMause, Anzieu had identified the phenomenon of the social trance, calling it the 'group as dream', and the repository of fantasies (Anzieu *op.cit.* pp.100-28), but was working with groups that were too large and constrained in time to permit that degree of intimacy through which the evolutionary processes observed by Slater could be detected and analysed. The controlled provocation and release of repressed emotion is a basic tool in group training analysis. This had been noted previously by both Bion and Foulkes. Foulkes however, in view of the disturbances caused by Bion's original methods at Northfield, had strongly recommended that a *conformal* countertransference be employed by the therapist to begin with (see ch. 9.2) - i.e. that the therapist should initially assume the role assignment offered by the group and only later modulate the countertransference from complementary to concordant after the group has attained a greater degree of maturation (like the schoolteacher's maxim: 'never smile till after Christmas').

Both *GPE*- and *TT*-based approaches interconnect at so many levels, so it would be inappropriate to call them 'schools' or 'networks'. Inclination towards one perspective or the other depends on the respective emphasis given to group-ego relationships vs. oedipality, but both are two sides of the same coin. Psychodynamic approaches to management and organisational consultancy have hitherto drawn upon all the approaches outlined in ch. 1, using the ego psychology of Kohut as a consilient link between them and to provide a clearer framework for the study of individual motivation (e.g. Czander 1993). This permits a wider heuristic base of possible responses to different analytic situations, the appropriate choice being made in the context of a specific organisation's history, current profile, and problem-at-hand.

Group process studies on the American East Coast developed from the pioneering studies of Ackerman and Yahoda on antisemitism (Ackerman & Yahoda 1950), Slater's work on the structural, psychological and religious evolution of groups (*op.cit.*), Cohn's work on apocalyptic movements (Cohn 1957), Stierlin's analysis of how family myths are transposed to the wider social group (Stierlin 1973) and various studies that explored the variety of group-fantasies deriving from the Bion construct and the styles of leadership appropriate to each of them (Mann *et al.* 1967; Gibbard *et al.* 1974). A critical avenue of exploration developed within and around the IPA with the publication of deMause's *Foundations of Psychohistory* in 1982 (ch. 3). At this time, deMause was closer to the sources of pre- and perinatal psychology than he ever was subsequently, advancing the hypothesis that "*the primary purpose of any group is to preserve its womb-surround, regardless of the cost to individuals within the group*" (deMause 1982 p.144). This encouraged deeper analyses of the perinatal origins of large-scale group fantasies - appropriately enough, since the larger the group, the deeper the capacity for regression.

Drawing on the BPM sequence of Grof discussed above, deMause and other IPA associates identified the dominant fantasy sequences derived from pre- and perinatal experience and sought instantiation of them, both in Euroamerican history and contemporary politics. They believe access to these fantasies to be possible through the technique of fantasy-analysis originally developed by deMause, Beisel, Stein and other IPA researchers (*op.cit.* pp.150-52, 194-95; Lawton 1988, pp. 185-92). This approach has

certainly provided a range of powerful insights, especially with regard to the psychodynamics of American culture (Stein 1985) but remains constrained by a) context-dependent limitations, b) a group tendency to transpose the events outlined in the Grof sequence from their perinatal origins to the exclusive domain of childrearing, c) general deficiencies in historical methodology and d) the traumatic legacy of 9/11, which has exacerbated paranoid-schizoid anxieties on a national level and led to the defensive strengthening of group boundaries at all levels in US society (ch. 3).

More provocative interpretations of intergroup conflict and aggression have been offered by Howard Stein (Stein 1985; Stein & Apprey 1987) and the international psychiatric consultant Vamık Volkan (Volkan 1997). Stein's work draws the legacy of the psychoanalytic anthropological network (ch. 2.3) within the context of group process studies (Fig. 5.1). Both Stein and Volkan work on the assumption that culture operates as a system of collusional intrapsychic defence and that conflicted groups interact through symbiosis - they may seem to hate one another, but in fact they desperately need each other for the purpose of shoring up each others' ethnic identities. The psychodynamic origins of this important observation, one which does not bode well for the easy resolution of international conflict, will be discussed shortly. If the hypothesis that culture is a collusional system of intrapsychic defence is indeed verifiable, and if conflict is truly an inevitable and unavoidable concomitant of group dynamics, there can be no path to world peace without probing the root of the core defences that generate these dynamics.

5.2. The perinatal origin of group defences.

We have stated that the human drive to sociality is more intense and has far deeper psychological roots than is the case with other mammals. It is not simply a matter of species affinity, safety in numbers, co-operative advantage or family bonding. Generic trauma, exacerbated by comparatively recent evolutionary factors such as upright posture, cranial expansion, the involution and complexification of consciousness and the inexorable trend towards increasing neoteny, drives humans towards *synoechism*, that is, to band together and create cultural systems and, what is more, to elaborate these systems well beyond the exigencies of mere survival - all in order to establish and perpetuate, through childrearing and socialisation, collective modes of intrapsychic defence against the emotional residue of this trauma i.e against the somatically and neurally encoded transmarginal stresses of human morphogenesis that cannot be contained or rationalised in the context of individual experience (Stein & Apprey 1987 pp. 349-76). Culture is never just a set of practical responses to immediate environmental contingencies as the contextual functionalists would propose (e.g. Harris 1979). If this were the case, how could seemingly perverse and completely dysfunctional societies, fuelled on genocide, cruelty and slavery, nevertheless continue to emerge and flourish alongside more supposedly 'benevolent' ones (Edgerton 1992; Wilkinson 1996)?

Studies by pre- and perinatal psychologists over the last twenty years (Wasdell, Dowling, Buchheimer *et al.*) have gone far in elucidating the aspects of generic trauma that were discussed in ch. 4, where it was shown how defensive patterns laid down in response to this trauma become translated 'outwards' from the realm of the individual to that of the extended social group. As we gather the historical threads of group process

research and weave them into a single tapestry, we see that it is the earlier perinatal paradigm of deMause (1982 pp.132-46, 244-332) combined with parallel work in perinatal psychology and the applied large group process studies of Stein and Volkan that offer the most satisfactory method of investigating how these defensive patterns catalyse the behaviour of both small and large groups and the relationships between them, opening a pathway into the dynamics of core trauma as well as a conceptual basis for integrating individual and collective experience within a single matrix.

Groups can be of various types. They can be closed or open (Foulkes 1948), unibonded or multibonded (Sorokin 1947), heterogeneous or homogeneous (Friedländer 1978), psychological or task-oriented (Freud 1921; Bion 1961; Meissner 1966) or any combination of these. A structural analysis of closure, bonding or heterogeneity is not our chief concern at present. Our chief concern is the *psychological* group, whose psychodynamics invade the domain of every other type of group, contaminating the emotions of its members. The main effect of the psychological group is to induce subconscious regression in its members to a state of primitive infantilism or fetal solipsism - this is what was meant by *Freud's collective inhibition of intelligence in groups*, Abell's *collective dream* (Abell 1966), the *group dream* of Anzieu and deMause's *social* and *fetal trance*[6]. Group dynamics are fluid, shifting and treacherous, but much of the confusing terminology in the psychoanalytic literature on group process becomes clearer once the core is understood. The substrate of the psychological group is fantasy. The group is at once the *Body of the Mother* (Anzieu 1984) and the source of *canonicity*, whether through the leader or, in a leaderless group, through some chosen 'traditional' source within the 'group culture'. If the psychological group, as Slater maintains, is a microcosm of culture (Slater 1966) and culture is a collusive system of intrapsychic defence (Stein & Apprey 1987) then "*the precondition for the development of a social defence is the collective experience of anxiety*" (Czander 1993 p.110). This anxiety is the residue of generic and inflicted trauma. "*Groups*" writes deMause, "*whether face-to-face or historical, induce a "fetal trance state" in their members, reawakening specific physical memories from uterine and perinatal life*" (deMause op.cit. p.143). Exactly how is this fetal trance state and its concomitant anxiety induced and communicated?

5.3. How emotion is communicated in groups.

The existence or non-existence of a 'group mind' remains a needlessly contentious issue. The so-called 'group mind' is simply the dominant set of *order parameters* (Haken 1996) or fantasies emerging from the pool of emotions shared by members of a group. Like 'the gods', it has no existence apart from those members, it changes its character and structure according to group membership and dissipates the instant the group itself is dissolved. People who come together in a group, whether structured or unstructured, communicate anxiety through the flow between them of conscious and unconscious affect, the latter gaining ascendance in relation to the former as the dimensionality (numbers) of the group increases or the group boundary (deMause's 'womb-surround' -

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[6] Other terms in the literature include *altruistic surrender, chronic losers, focal symbiosis, symbiotic attachment, personal (or group) myth, ghost sickness, hysterical contagion, primal fantasies and secret sharing* (Czander 1993 p. 248 n.5).

op.cit. p.144 et seq.) becomes unstable. Unconscious affect is communicated by a number of factors, all of which operate in synergy (mutual reinforcement). These factors are:

a) interactive *paralinguistics* - voice intonation, intensity, pitch, pacing, pauses, phrase structure and cadence, 'Freudian slips' and interjections, choice of word, metaphor and rhetorical devices and the use of humour, both as a defensive and projective mechanism (Freud 1900, 1905). A method for transcribing the affective nuances of speech (thus deepening the power of fantasy-analysis) is demonstrated in Stromberg (1993). The *archetypal morphologies* contained in rhetorical devices, phrase and sentence structure are explored more fully in chs. 7 and 8,

b) interactive *kinesics* - the entire repertoire of body language, including posture, gesture, movement and visual expression,

c) interactive *chemotactic response* or communication through smell, called *ecto-hormonic propagation* by R.D. Laing (1971) citing the research of H. Weiner on the roles of the pineal and pituitary glands in the transmission and inhibition of *external chemical messengers* or ECM's (Weiner 1966, 1967, 1968)[7].

All these factors serve as channels to evoke preverbal affective states relating to intrauterine life as well as mental representations, memes, role assignments and constraints established in early infancy and the family matrix. These affective states and the emotional valence that infuse mental representations are encoded primarily in amygdalan and hippocampal memory (LeDoux 1996), hence their regressive pull - exerting a hypnotic influence on the individual (Berghold 1991) and inducing a trancelike state recalling the timelessness of intrauterine symbiosis or the helplessness of early infancy. Even if the overt dialogue of the group seems 'rational', it is these archaic affective patterns, whose scope and range far exceed the narrow channel of conscious communication, that predominate in the psychological group and often convey meaning directly at variance with that expressed in the surface dialogue.

Through these covert channels of communication a variety of ego-defences are tacitly explored and tested. From those that are found to be shared (and the greater the regression, the greater the compaction in time and degree of sharing, especially in the paranoid-schizoid defences of the newborn), an intrapsychic structure finally emerges - a collusive construct through which group members are collectively defended against memories of the terror, panic and fear of suffocation associated with the birth process as well as those of abandonment or engulfment that form the traumatic residue of infancy. In the latter instance these defences are stabilised by group convergence onto a species of fantasy deriving from the Bion construct expressing hope for salvation through

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[7] *"I believe that the pineal is the controller of social hormones and that ... variability* (in the pineal - my note) *relates to the enormous differences in the way individual human beings deal with their peers and other living beings"* (Weiner 1968 pp.914-15). A well-known instance of chemotactic response or ecto-hormonic propagation would be the so-called *testosterone effect* among a group of men in a situation where social inhibitions are temporarily relaxed.

dependency or pairing (the 'Messiah' or 'Mahdi' factor) or, if these fantasies cannot be sustained, the group may converge in desperation onto assumption 2 - the least stable assumption of the Bion construct - which may precipitate an eruption of core (perinatal) material and drive the group through successive phases of the Grof matrix (BPM). The Bion construct is therefore only the 'playground' of the psychological group - a structure which orbits and contains the 'event horizon'. The assumptions comprising the Bion construct derive not from the perinatal core, but from the immediate postnatal phase of infantile dependency, as Wasdell states: "*foetal dependency is not the archetype of infant dependency but is rather the archetype of being. There is a holism, an ontology of foetal existence which dies in birth and lives in fragments in the beyond. Bion's construct of basic assumption groups and work group is a reflection of this fractured afterbirth, partial in time, split in construct, cut off from its foundation and incapable of giving a holistic reflection of life*" (Wasdell 1985 (I) p.5).

As each member is 'slotted' into the group construct, he or she will assume the role appropriate to his or her position in that construct, expressing what deMause (*op.cit.*) calls a 'social alter' or what Gruen (1992, 1993, 1999b) and others call a 'false self'. In the rituals of tribal societies these alters are expressed by the wearing of masks or body paint (deMause 2002 pp.114-15), and among 'persons' in contemporary urban culture more implicitly, through subtle differences in dress code, speech or behaviour (person > Etruscan: *parsopna* = 'mask').

The fantasy selected at any particular instant will depend on environmental factors such as perceived threat or impingement, on the immediate, lived context of that instant and upon the dimensionality, composition and psychological state of the group. The fantasy substrate or 'social trance' may be induced by a selected leader whose psychological profile complements the needs of the group at that point in time, or the group-fantasy may converge through the more chaotic process of 'order parameter emergence' described by Haken, in which one, group-selected order parameter (or mode of feeling and acting) gradually comes to dominate other, competing order parameters (Haken 1996).

5.4. Susceptibility to the social trance.

What makes people more or less susceptible to covert communication within groups? What creates the deeper regressive pull towards de-individuation whose trancelike, hypnotic character can generate a spectrum of affect depending on the individual's personal degree of early traumatisation, ranging from lassitude and feelings of unease in the less traumatised, to a kind of manic elation in those more so? "*Birth*" writes David Wasdell, "*is the archetype of bereavement....Loss of the idealised holding environment leads to transmarginality of grieving and ultimately to fixation and denial of separation*" (Wasdell 2002 p.11). The transmarginal character of the grief associated with such loss means that the mature process of mourning, the act of self-healing and regeneration achieved through 'coming to terms' with loss and separation, is unavailable. Feelings of catastrophic loss are therefore repressed and denied, as in turn are the very acts of repression and denial (Laing 1971). The effort required in such self-manipulation is a constant source of pain for the individual since the repression of core experience is

inherently unstable. The solution is to project all 'poisonous' negativities outward into objects or persons in the environment, then to selectively re-absorb them as 'retaliatory weapons' within the defensive construct, along with whatever is perceived 'out there' to be 'nurturant', supportive, and therefore 'good'. These projective-introjective exercises, part of the universal legacy of birth, are further reinforced by trauma inflicted during childrearing. Maintaining the integrity of the defensive construct requires constant vigilance so as to ensure *domination and control* of the treacherous and fluid selfobjects which comprise it. Here are the origins, not only of Otto Rank's 'archaic selfobject transference' as a prime dynamic in sexual relations (Rank 1926; Atwood & Stolorow 1999 pp.136-42)), but also of the human 'lust for power', for it is the group, as surrogate maternal body, that offers the individual a supportive, anonymous and forgiving environment through which the dynamics of archaic selfobject transference as well as the individual's personal defensive construct can be stabilised, sustained and directed, provided that the personal construct can be mapped successfully onto that of the group and its corresponding role or 'social alter' properly internalised. Once achieved, the chance to participate in collective projection confers power on the individual while the anonymous collectivity, especially of the larger, transgenerational or institutionalised group, offers the illusion of security and immortality. For the more traumatised and repressed individual, group membership is a seductive temptation. Repression can now be released subliminally within the womb-surround of the group's defensive construct. What was forbidden at the personal level is now tolerated, even encouraged, at the collective level, including the freedom to indulge in the regressive sado-masochistic fantasies identified by Slater. Solipsistic closure within the group means that personal responsibility can be denied and the pain of individuation and of reality-oriented freedom finally assuaged (Fromm 1942) - hence the 'tendency of firstborns to affiliate under stress' discussed in Sulloway (1996). But the mere act of allegiance, the collective acceptance of de-individuation and personal absorption within the collusive intrauterine life of the group does not guarantee stability of the group construct. Group composition, dimensionality (group numbers) and environmental factors all conspire to render its fantasy components no less fluid and treacherous (on the collective scale) than the individual's personal constellation of selfobjects had been. The most vulnerable point is the boundary.

5.5. Dimensionality and boundary stability in groups.

A human group is a dissipative structure (Nicolis & Prigogine 1977; Prigogine & Stengers 1984), a living, autopoietic or self-sustaining system (Maturana & Varela 1987) that takes material (whether physical, psychological, or both) from the outer environment into itself and transforms it. Part of this transformed material goes to sustain the system and promote growth, while whatever remains - the 'waste' or 'entropic' material - is 'dissipated' back into the environment. This is a central tenet of *social systems theory* (von Bertalanffy 1950; Rice 1963; Boulding 1978) and the starting point for psychodynamically-based organisational analysis (Czander 1993 pp.177-79). The boundary of a biological dissipative structure, e.g. the infant in the womb, is a true organic skin, but the boundary of a social autopoietic system such as a human group or organisation is not primarily organic but psychological. It is determined by the

individuals who make up the group, the materials, tools, symbols and artefacts belonging to them and the *perceived* space or domain within which the group functions. This domain may be defined by architecture, and the boundary given physical expression by fences, walls or, in the case of nations, frontiers, but these 'concrete' realities primarily serve a *symbolic* function. 'Group space' thus functions much like 'personal space' - you can't see it, but you know when you've crossed it. Nevertheless, the group subconsciously *perceives* and *feels* its boundary as a 'womb-surround' or 'virtual skin' (deMause 1982 pp. 144-46; Volkan 1997 pp.27-28).

Boundary management is the key to group stability. Boundary stability is maintained by strict definition of what constitutes 'us' within versus 'them' without and by vigilant control of what enters or leaves the system by crossing or 'penetrating' the boundary (sometimes in a sexual sense). Successful control of the boundary is determined by two factors: the cardinality (numbers) of the group and the degree of environmental impingement from outside. But how do 'numbers' translate into 'dimensionality'? Wasdell (1985, 1990, 2002) proposes the following analysis:

If there are two people in a relationship (a dyad), there are 4 possible dimensions or degrees of freedom where individuality and relationship are expressed: 1) the individual dimension of person A, 2) the individual dimension of person B, 3) the dyad as a field of intimacy for both ('us') and 4) the dyad in relationship to the outside world ('us' vs. 'them'). Therefore, for a group of cardinality 2 ($n = 2$) the dimensionality (D_2) is 4. When the dyad becomes a triad ($n = 3$) the dimensionality (D_3) increases to 11 - we now have three individual dimensions, three dyads ($(n^2 - n)/2 = 3$ for $n = 3$)), three dimensions that express the relationship of each dyad to the remaining member, one dimension expressing the identity of the triad ('we three') and one expressing the identity of the triad in relation to the outside ('us' vs. 'them'), so that $D_3 = 3+3+3+1+1 = 11$. When the triad becomes a quartet ($n = 4$), the dimensionality (D_4) increases to 38. The breakdown is as follows: one dimension of the quartet identity ('us'), one dimension expressing the quartet's relation to the outer world ('us' vs. 'them'), 4 dimensions of individual identity, 6 dyadic dimensions ($(n^2 - n)/2 = 6$ for $n = 4$)), 12 dimensions expressing the relation of *each* dyad to *each* other individual, 6 expressing the symmetric relation of each dyad to the other dyad, 4 governing each separate triad and 4 governing the relation of each triad to the remaining member, so that $D_4 = 1+1+4+6+12+6+4+4 = 38$. For $n = 5$, $D_5 = 107$, and for $n = 6$, $D_6 = 480$.

It can readily be seen that the dimensionality D_n of a group of cardinality n increases exponentially with n. Can the Wasdell analysis be expanded to a general algorithm for the dimensionality $D_n(G)$ of a group of arbitrarily large n? Given a group of n members, there will be 2^n possible subsets (subgroups or r-tuples). The notion of the empty set ($\emptyset$) in traditional methods of subset enumeration is interpreted as the relation of the group to the outside (beyond the group boundaries). If we wish to determine how many subgroups of given cardinality (r) can be found in n (how many dyads, triads, quartets, quintets etc.) then we write:

$$\binom{n}{r} = \frac{n!}{(n-r)!r!} \qquad \text{Eq.1,}$$

in which n is the number of members in the group and r is the subgroup of the desired cardinality. But we are concerned not only with the number of subgroups within n, but also with the number of possible relationships between them. For $n = 6$ for instance, each *dyad* will relate to every subset of the remaining 4-group. The complement of the subgroup of cardinality r is therefore $n - r_1$ ($6 - 2 = 4$ for $n = 6$) and the cardinality of each subgroup to which the dyad will relate will be r_2. For the number of subgroups in the complement, Eq.1 transforms to:

$$\binom{(n-r_1)}{r_2} = \frac{(n-r_1)!}{((n-r_1)-r_2)!r_2!} \qquad \text{Eq.2.}$$

To find the total number of interrelationships (degrees of freedom) between each subgroup r_1 of n to each of the subsets in its complement $(n - r_1)$ we need to sum twice: for each subgroup r_1 of n and each subgroup r_2 of the complement $(n - r_1)$ of each r_1. We therefore combine Eqs.1 and 2, adding 2^n as the number of free-standing (non-interrelated) subgroups, as follows:

$$D_n(G) = 2^n + \left[\sum_{r_1=2}^{n-1} \sum_{r_2=1}^{n-r} \left(\frac{n!}{(n-r_1)!r_1!} \right) \left(\frac{(n-r_1)!}{((n-r_1)-r_2)!r_2!} \right) \right] \qquad \text{Eq.3.}$$

The degrees of freedom are the channels through which representational structures are communicated. The sharp exponential increase in their number $D_n(G)$ as n becomes arbitrarily large serves to explain Turquet's observations on the crisis of individual identity in large groups. What Turquet calls 'the assumption of transcendence' is in fact a pull to regress within the bounds of the sealed and safe, pre-critical uterine state. Wasdell has pointed out (personal communication) that as the dimensionality of the group increases beyond $n = 12$ a critical point is reached beyond which, should group boundaries become unstable, the group is compelled to seek a poison-container or scapegoat to contain increasing fears of growth limitation, as well as a receptacle for the nurturance needs of the group. In other words, the group will seek both a sacrificial victim and a guardian for the group totem or placental symbol.

How does $D_n(G)$ affect the flow of information between its members, its capacity for decision-making and level of behavioural complexity, for instance, on the Streufert-Satish Scale (Streufert & Satish 1997)?

$D_n(G)$ only gives the *number* of interpersonal dimensions for a group of given cardinality. The various dimensions intersect and enmesh according to what is perceived or felt by each individual or subgroup in relation to each and every other individual or subgroup (Wasdell 1985 pp. 8-21; 2002 pp.14-16). In a dyadic relationship, person A will

have some degree of insight into aspects of B's B's personal defensive construct of which B is unaware. Conversely, person B will have some degree of insight into the personal defensive construct of person A. Outside of this mutual domain of insight there is an area - that of 'small talk' - which is considered safe by both and accessible to all. But there is also a core of shared generic trauma which is defended by both parties and therefore inaccessible to both. The 'dyadic' dimension ('us') may become infused with a deeper collusive construct whose purpose is to defend both from the repressed core - the 'event horizon' of shared defendedness, the probing of which simply cannot be countenanced by either party. This construct acts as a substrate for whatever insights are shared, shaping the overall nature of the dyad's relationship with the outer world ('us' vs. 'them'). This enmeshing of dimensions creates an overall collective structure peculiar to the composition, environment and historical context of the group and is the source of group-fantasy. The degree of enmeshing, and therefore the density $dp(G)$ of the repressed core increase exponentially in relation to $D_n(G)$ and therefore also to the cardinality n.

Human groups are normally in continual contact, so group boundaries are in a constant state of flux and members frequently traverse them, joining or leaving particular groups. As long as the boundary remains stable, the work group can engage with external reality - but only to the degree permitted by the defensive construct shielding the group from the core. The more repressive and potentially unstable this construct, the less the work group will be able to engage realistically with the outer environment. The boundary (as determined by the group defensive construct) exists in delicate equilibrium between the external, inward pressure of environmental impingement and the level of collective anxiety generated by the outward pressure of repressed material in the core. If group numbers are held steady while environmental stress increases, the boundary becomes unstable, the defensive construct breaks down and core trauma threatens to erupt. Conversely, if environmental conditions are held steady but the dimensionality of the group increases through an uncontrolled influx of members, similar conditions obtain - boundary instability followed by threatened eruption of the core. At mild to moderate levels of environmental impingement, the core is successfully contained and the psychodynamics of a group will tend to orbit within the assumptions of the Bion construct. As these assumptions derive from infantile dependency and the oedipal phase, the interaction of the group with its environment will, over a significant length of time, reveal the evolutionary structures observed by Slater at the small group level (i.e. structures comprising fantasies of deification, oedipality, regicide, seduction, fertility, sacrifice and ritual execution) and by deMause at the large group level (national and cultural) when he states that: "*the ultimate source of the movement of history ... is ... the continuous displacement of erotic fantasies, organised by the oedipal drama of the leader-as-father to win the group-as-mother*" (deMause 1982 p.175).

Boundary fluctuation at moderate to severe levels may precipitate bursts of pseudo-work-related activity where the threatened eruption of core trauma is re-repressed and defended against through a manic excursion into symbolic elaboration. This occurs frequently with intellectual or scientific networks threatened with paradigm shifts or historical crises (Collins 1998). As the French mathematician J. Petitot has observed: "*What we see here is a problem in the history of science which has so far not been*

recognised. What in fact happens is that instead of simple, idealistic steps from approximation to greater rigour, key scientific breakthroughs were in fact acts of containment ('des actes forclusifs' - my note), *which scotomised certain levels of reality at the expense of symbolic elaboration"* (Petitot 1978 p. 48 - my translation).

The 'accessible' material in group analysis is the realm of 'normal' discourse - the memetic system that binds the 'inaccessible' realm of shared, repressed material within the group defensive construct. This 'inaccessible' realm is not all free-floating. Some of it is structured in accordance with the controlling vectors of the memetic system (MS) of the 'accessible' realm that forms the semantic expression of the underlying construct. The semantic structuring of repressed material therefore creates a *dynamic* - a set of catastrophe vectors operating on the scalar manifold M binding a certain quotient of the total dimensionality $D_n(G)$ within the construct. This is the bounded dimensionality D_n^b. If this dynamic extends over the total field of $D_n(G)$ the repressed material is fully compactified and the construct structurally stable, but complete stabilisation is impossible - the complexity of subgroup interrelationships creates shifting levels of information entropy within the components making up the defensive construct so that at best, the construct can only be maintained in a metastable state. This is why the assumptions making up the Bion construct display the constant fluidity observed by Slater. The free dimensionality D_n^f can never be totally eliminated therefore - its level at any given moment is inversely proportional to the stability of the construct and a critical increase in D_n^f can fracture it, raising anxiety levels within the group and precipitating regression. The following relations constrain the form, content and evolution of any given MS evolving within a group. They suggest a topological framework for an analysis of the degree of integration, mutual information and behavioural complexity of a group based on the algorithms applied by Edelman to the theory of neural group selection (Edelman 2000 pp. 120-4, 130-8) and permit testing by computer simulation studies.

1) Anxiety K is not a discrete, additive quantity but a continuous function representing the integration of the anxieties of each group member $\kappa_{(1,...,n)}$ i.e:

$$K(G_n) = -A \int d\kappa_{(1,...n)} D_n^f(P) \log_2 D_n^f(P) \qquad \text{Eq.4,}$$

where P is the *probability density function* (pdf) of all possible expressions of $K(G_n)$ and A an arbitrary constant.

2) Boundary stability within the group, ξ_B, requires that the ratio of 'free' dimensionality D_n^f to 'bounded' dimensionality D_n^b be unity if the group is to function at the minimal rate of efficiency permitted by its shared construct, i.e:

$$\xi_B = AP\left(\frac{D_n^f}{D_n^b}\right) = 1 \qquad \text{Eq.5,}$$

where P is the pressure exerted by the presenting environment and A = constant. If an uncontrolled influx of group members causes an increase in D_n^f, $\xi_B > 1$ and the boundary expands, becoming fragile, augmenting latent anxiety and precipitating regression R. As R approaches a critical point p^{crit}, there will be an increasingly manic effort to gain control of and to structure, the free-floating anxiety created by D_n^f through a corresponding increase in pseudo-work-related activity and/or elaboration of the dominant memetic structure at the expense of content - hence Petitot's comment above and de Maré's observation that "*an obsession with structure and control is the large group's substitute for mentation*" (1975 p.155). If this fails and $D_n^f \to max$, regression will fall below p^{crit} and paranoid collapse will ensue, resulting in a virtual 'explosion' of destructive behaviour. Likewise, when increasing P stimulates latent anxieties, thereby increasing information entropy between subgroups, a corresponding increase in D_n^b (to contain the entropy) causes $\xi_B < 1$ and the construct bounded within the prevailing MS becomes increasingly brittle as $R \geq p^{crit}$. When $R \leq p^{crit}$, the construct fractures, leading to paranoid-schizoid collapse. In both cases, p^{crit} represents the point at which the enfielded set of catastrophes expressing the group defensive construct (ch.7) falls beyond the range of the constraint catastrophe compactifying that set. When this happens, the defensive construct articulated through the dominant MS falls 'back' from more the richer, more complex manifolds $D_k \to A_{k>3}$ towards the basic schizoid form of the perinatal catastrophe $A_{\pm3}$ (ch.7). This becomes unstable as $R \leq p^{crit}$, leading to collapse.

3) The density $d\rho(G)$ of repressed material fluctuates according to the shifting psychoclass structure[8] within the group over time, i.e:

$$\frac{d\rho}{dt}(G_n) = -A \int_{i=1}^{n} \left(\frac{4\pi}{3}\right)^{D_n} t\left(\frac{D_n}{P_m I(G_{(1,...,n)})}\right) d(G_n)$$

Eq.6,

where P_m represents the level of perinatal matrix-derived or generic trauma and I that of inflicted trauma, with A = constant. When the dominant MS can no longer contain ρ due to the conditions set out in Eq.5, both D_n^f and K increase to a maximum and the MS devolves to a more primitive, schizoid form. The evolution and transmission of meme structures are therefore highly dependent on historical context.

To a group acutely threatened with boundary collapse the future appears not as a realm of potentiality which promises growth on the condition that change or transformation is accepted, but as a black wall behind which lie only chaos and annihilation. The fear projected onto this wall is then 'mirrored back' onto the collective identity of the group, whose members will either retreat into passivity and stasis or, in extreme cases, incorporate this fear, re-introjecting it as a perceived consequence of fantasised collective guilt. Faced with such a no-win situation, caught between the hammer of chaos and the anvil of group impotence, they will cathect their despair through self-destruction (Fromm 1973). Wasdell states that: "*in acute cases of regression,*

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[8] See 5.8 below.

where the projection is mirrored from the cosmos onto the foetus itself, overwhelming guilt, alienation, badness, anger and terror are experienced, and in this position of counter-regression the self is experienced as bad, an incorporation by mirroring of the reversed perception of womb. At this point suicide is appropriate, madness an authentic expression and self-annihilation by the group a social incarnation" (Wasdell 1979 p.3).

Herein lie the psychodynamic roots of individual and collective suicide as well as of orgiastic violence and social or civilisational collapse. Extreme cases of regression provoke catastrophic delusions during the third phase of Grof's *Basic Perinatal Matrix* (ch. 5) - in particular, the eruption of sadomasochistic orgies which Slater felt to be latent beneath the surface when his experimental groups experienced states of heightened anxiety (Slater 1966 pp. 24-54, 55-60, 74-84 *passim* and 169-185 - where it is clear Slater is nevertheless still unable to probe beneath the level of the Bion construct). When the point of criticality is past and the core erupts through the surface, destructive social alters gain total control over group members who are then helplessly driven to participate in these orgies.

The 'mirroring effect' created by 'future shock' is the source of what deMause calls 'growth panic' (deMause 2002 pp. 83, 95-6, 123-4, 135-6 *et passim*) and of what Sagan and other Kleinian-oriented psychohistorians refer to as the *schizoid barrier* - the psychic wall separating the paranoid-schizoid and depressive positions (Sagan 1991, 1993; Leech 1999). But how exactly is the future 'mirrored' back to a traumatic point in an individual's early life? When an individual undergoes an experience involving intense and overwhelming transmarginal stress, the psyche will 'back off' from the event and retreat to a point in time just prior to that at which anxiety became critical, seeking to deploy mechanisms which will effectively seal off that event from conscious memory (dissociation). Consciousness therefore fails to traverse that event in linear time. The traumatic event is 'skipped' but the anxiety associated with it remains encapsulated within the unconscious. Nevertheless, the situational context of the anxiety-precipitating trauma is encoded as a mental representation or 'morphology' (ch. 7) containing the sealed trauma as a 'blind spot'. This mental representation then remains dormant until a situation arises in later life, the context of which reactivates the mental representation of the previous trauma. When this happens, the person in question finds him/herself unable to engage directly with the current situation but is forced rather to deal with the resurgence of overwhelming anxiety evoked by the reactivated mental construct. The realities of the current situation may have little or nothing to do with the earlier traumatic event. The resonance is not between situational *realities* but between the two *representational constructs* separated in time - the emotional valence of the earlier construct, evoked by this resonance, arising to infuse and dominate the later one. This is a basic principle of *human* behavioural complexity as opposed to that of inorganic systems - that earlier attractor states are simpler, but their *affective* components tend to bias later, more complex ones (Satish 1997; Streufert & Satish 1997 - and ch. 7).

5.6. The exercise of power within groups and conflictual symbiosis.

Since group psychodynamics are unconscious, the group will always consider its collective behaviour as 'normal' and will seek to discipline or ostracise dissenting members, labelling them as 'deviant'. Wasdell states that 'normal' behaviour for a given group "*only lies within the limits of the standard deviation from the mean occurrence and depth of primal anxiety (shared trauma) and the defences generated to contain it*" (Wasdell 1980a p. 24). The group exerts power over its members by threatening with rejection, banishment or other sanctions any member who strives to become independent of the dominant fantasy - who seeks to individuate or in any other way to rise above the "*statistically normative level of the group*" (Stein & Apprey 1987). This threat to the basic assumption of dependency can evoke severe anxiety. Group members exist in a state of *symbiosis*, a state that Stein describes as "*a reciprocal parasitism, a mutual exploitation and infantilization in which each voraciously depletes the selfhoods of those with whom he was "symbiotically" fused*" (*ibid.* p. 148). Stein goes on to point out that "*the degree of emotional differentiation or symbiosis within a culture or any type of group can readily be measured by the extent to which the group utilises what Bowen (1978: pp. 535-6) terms "emotional cutoffs": e.g., the radical (negative) distinction between in-group and out-group, and the avoidance, segregation, rejection, extrusion, or persecution of members within the group who attain a level of individuation higher than that of the statistically normative group*" (Stein & Apprey *op.cit.* p. 150). The roots of such sanctions can readily be discerned in the shame-inducing dynamics or manipulation through threat of rejection experienced in early childhood. This protective but parasitical 'symbiosis', or forced regression to a state of primary identification, is necessary in order to mobilise the anxieties and projective proclivities of group members for conflict with the 'other', with a designated the 'out-group' or even (as with cults) with the outside world in general (Fig. 5.7. below).
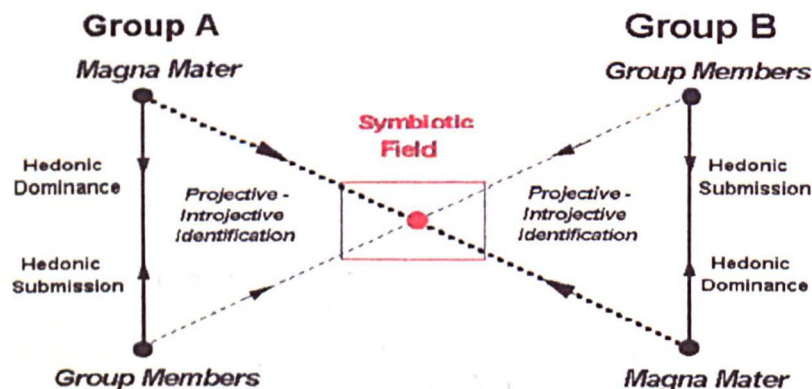

Fig. 5.7: Triangulation Digraph of Group Symbiosis

We are accustomed to think of conflict between two groups in terms of the desire of each group to exterminate the other. This is misleading. A more accurate depiction of the psychodynamics of group conflict would be the 'symbiotic triangulation' of Fig. 5.7. In this figure the members of groups A and B each submit hedonically to the fantasised *Magna Mater* - the primal defensive construct and womb-surround (boundary) of their respective groups - on pain of symbolic castration or abandonment. The ambivalence inherent in the relationship with the mother is negated by projecting the imago of the 'Evil Mother' - the incarnation of 'bad selfobject configurations' - onto whichever out-group is designated as such by the hedonically dominant *Magna Mater* (we remember Saddam Hussein's now proverbial comment during the 1991 Gulf War on 'the Mother of all Battles'). The out-group accepts these projections and may even fully introject these configurations - in other words, *group B will begin to behave in the manner expected of them by group A* and vice versa - a dynamic process analysed by Vamık Volkan in the context of the Bosnian-Serb conflict (Volkan 1997 pp.72-80). These 'bad selfobject configurations' are as we have seen, mappings or 'expansions' of mental representations formed by pre- and perinatal experiences, augmented and elaborated by the role assignments (and role introjections) inculcated later within the family (ch. 4) and reinforced through the educational system. Thus it comes about, as Stein says, that *"one is as much symbiotically bound up with the enemy as one is with those in [one's] own positively valued group"* (*ibid.* p. 147). The result is dynamic equilibrium - a psychologically stable interdependence. Stein goes on to point out how *"the despised out-group, which we might visualize 'geometrically' as the apex of the emotional triangle, acts as a profound stabilizer for the in-group, bearing all the brunt of its anxieties and conflicts. Furthermore, the two groups* engage each other (italicised), *precisely for the same triangulating function. The process simply cannot be conceptualized as cause and effect (e.g. one group the "cause" and the other group the "effect"); rather it is a circular, homeostatic process in which all members of cultural projective systems contribute to the stability of the system"* (*ibid.* p. 147).

Both groups truly hate each other, but at the same time need one another, for it is only through the projective-introjective 'death dance' of masochistic love (for one's own group) and sadistic hate (for the other) that one's own group can successfully define and sustain its collective identity. As W.H. Auden wrote in *The Sea and the Mirror: "if we did not have a hated 'them' to turn against, there would not be a loving 'us' to turn to"* (cited in Volkan *op.cit.* p. 25).

The phenomenon of conflictual symbiosis goes far in explaining the intractability of many historic and present-day conflicts. Furthermore, as Stein also observed, *"it is the very proximity of two groups in terms of 'culture' that can simultaneously exacerbate conflict and reinforce symbiosis"* - a phenomenon described by Freud as "the narcissism of minor differences" (Freud 1921 - *PFL* p. 131, 1930 - *PFL* p. 305). This is why Stein concludes that *"the cyclical theorists of history are technically correct, though for the wrong reasons"* (Stein & Apprey *op.cit.* p. 125) for *"it is the very vicissitudes of group symbioses that has made history recurrently repeat itself"* (*ibid.* p. 309).

5.7. Psychoclass emergence and interaction.

Psychoclasses are defined by deMause as "*groups of individuals with the same childhood mode within a given population*" (deMause 1982 p.139, 3D:1). A psychoclass is therefore a 'hidden' group whose members share the same childrearing modes and early experiences (generic trauma reinforcement/annealment), and who tend to gravitate towards a shared set of intrapsychic defence-structures and group-fantasies *vis-à-vis* other psychoclasses. Psychoclass boundaries define the limits of what Wasdell identifies as "*the standard deviation from the mean occurrence and depth of primal anxiety (shared trauma)*" - but in this case for each psychoclass, which stabilises around the mean intersection of all individual defensive constructs generated to contain this anxiety. Psychoclass is not necessarily coincident with social class, although there have been moments in history such as the *États* during the French Revolution (Sulloway 1996 pp. 306-26) or German society prior to WWII (Loewenberg 1995 pp. 240-83) during which the two have approached a high degree of convergence. The psychoclasses of any given society, under normal or moderate levels of stress, tend to bind together into a mutually interactive structure that recapitulates the relationships of early infancy and family role assignment (ch. 4.6). It is these *implicate* dominance-submission relations between psychoclasses, compounded by the degree of fluidity between psychoclass and social class, that accounts for the inertia and hitherto unpredictable behaviour of large groups as well as of the turbulence and conceptual intractability of historical events.
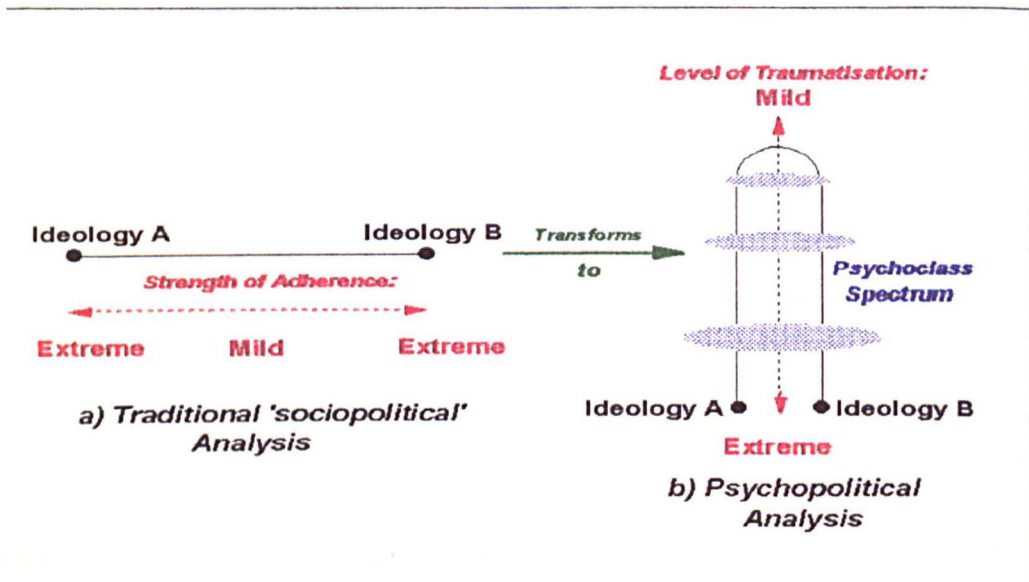

Fig. 5.8: The Political vs. Psychopolitical Analysis of Conflict.

In the analysis of conflict, it is necessary to be aware of the underlying structure that influences the degree to which all members of participating groups will, under increasing stress, polarise *vis à vis* 'the hated other'. This structure is created through the interplay of the component *psychoclasses* of a given group. Fig. 5.8 above therefore 'bends' the traditional bipolarity of political analysis into the 'horseshoe' of psychopolitical analysis.

We conclude by introducing three hypotheses pertaining to psychoclass evolution. As with the hypotheses introduced in ch. 4, these emerge from ch. 4 of deMause (1982), from Lawton (1988) and Szaluta (1999), from nonlinear (chaos) applications to be explored in ch. 7, from the methodologies advocated by Erikson, Lifton and Friedländer to be presented in ch.9 (together with sources) as well as from the arguments concerning the encoding of generic trauma, its reinforcement/annealment through primary caregiver relations and the transmission of shared defensive structures to contain it through family role assignment and socialisation, discussed in ch. 4. As with the previous set, these hypotheses are demonstrable, falsifiable and are implicit in all studies claiming to be psychohistorical although they have never yet been stated explicitly. The first hypothesis states that *in any given society, the cultural defences memetically induced through socialisation as a means of resolving intrapsychic conflict generate a social structure containing an inner network of sado-masochistic relations between psychoclasses.*

This network underlies and animates the set of "evolving class structures" that Wallerstein proposes should figure in any field analysis of conflict. The relatively large dimensionality of psychoclasses means that any given smaller group will contain an intersection of the psychoclass network (in whole or in part) of the larger society in which it is embedded (Fig. 5.8(b)) so that the group will often recapitulate that network on the microlevel. The group 'horseshoe' structure in Fig. 5.8(b) - a tension field created by ideology vs. traumatisation by psychoclass - multiplies and expands 'fractally', stretching, folding and fusing with its neighbours and permeating all social scales, finally to constitute the 'horseshoe' of the greater society[9]. At times of moderate stress, psychoclasses will be content to re-enact infantile fantasies and remain within the orbit of the Bion construct but at times of extreme civic or international stress, the more traumatised psychoclasses will regress to the intrauterine state and activate increasingly desperate fantasies based on Turquet's fourth assumption, provoking civil or international war. "*Paranoia*" as Robins & Post have stated, "*is the quintessential political disease*" (Robins & Post 1997 p.17). These more traumatised psychoclasses not only possess the greatest capacities for regression to a paranoid state, they are also more desperately anxious to contain and control their defensive constructs whose stability depends on preserving the network of projective-introjective relations with other psychoclasses, hence they are more likely to seek power for its own sake so as to drag or coerce others in the wake of their own, frequently destructive, fantasies.

How are the mental representations and dominance-submission relations inculcated during early childhood within the immediate family reinforced and incorporated within the defensive construct and fantasy drama re-enactments of the wider social matrix? The second hypothesis states that *a newly-emergent psychoclass whose relations within the network can be stabilised through memetic transformation causes a shift in network relationships that permits a release of cultural energy while maintaining essential power structures intact.*

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[9] This fractal expansion of the 'horseshoe' structure, as it stretches and folds throughout the social strata, recapitulates, in its increasingly complex interactive dynamics, the 'Smale Horseshoe' developed by the topologist Stephen Smale in the 1960's (Stewart 1997 p.137-39; Gleick 1988 pp.49-53).

As Bion and Freud have both pointed out, during periods of comparative stability within the wider social matrix or 'nation',- i.e periods involving only mild to moderate levels of stress, institutions serve as *delegates* through which basic assumptions and group-fantasies arising from the dominant defensive construct are 'acted out' - e.g. the *Army* serves as delegate for the basic assumption of *fight/flight*, the *Church* as delegate for that of *dependence* or *transcendence* and the *Aristocracy* (in our day, not only 'Royals' but also 'celebrities' such as pop idols, film or soap stars, politicians, football players etc.) as delegate for that of *pairing*. (Freud *GPE* (1921) in *PFL* 12 pp.122-28; Bion 1961 pp.136-7, 158-9 166-68). The school system has little or nothing to do with 'education' in the sense of empowerment, 'nurturance of young minds' or individual self-actualisation and everything to do with induction into the dominant defensive construct and the sadomasochistic relations it embodies - i.e. the transmission of cultural pathologies (Stein & Apprey 1987). The education sector is that group within society to whom is delegated the *group fantasy of control* (deMause, 1982), hence the structuring of the typical school day as an essay in orchestrated infantilism. Its true function is to stabilise memetic structures and maintain essential power structures intact. This happens due to the constraining effects of the pre- and perinatal matrix. If the relations of the newly emergent psychoclass with the dominant network is successfully stabilised, social complexity increases and some form of social, economic, technological or intellectual advance occurs (i.e. by *memetic transformation*). If not, social instability will result, leading to revolution or civil war. The new advance is driven primarily by perinatal re-enactment fantasies (palingenesis) but is acted out in relation to other psychoclasses through the assumption of roles congruent with archaic family assignment patterns (ch.4.6). The third hypothesis therefore states that *historical events reflect the restaging or re-enactment of generic and inflicted trauma by psychoclasses who subconsciously employ each other through the 'social trance' as delegate-actors within the unfolding drama of re-enactment.* It is the large scale fractal expansions of such re-enactments on a civilisational scale that cause history to *"recurrently repeat itself"* (Stein) and perpetuate the *corsi* and *ricorsi* postulated by Giambattista Vico (1744).

Chapter 6: The Evolutionary Perspective

6.1. Psychoanalysis and evolutionary theory.

"*Without question,*" writes Howard Stein, "*the cornerstone of psychohistory is evolution*" (Stein & Apprey 1987 p.136). In what way can insights from the evolutionary sciences contribute to psychohistorical research? The study of the number, origin, structure and function of the evolved, genetically-determined mechanisms that both facilitate and constrain human cognition (and, by extension, human culture) is normally considered the province of evolutionary psychology (EP) while emergent psychodynamic mechanisms are the concern of psychoanalysis. There can and should be a considerable overlap between these domains and an eventual possibility that each may fruitfully inform the other (Kennair 2002; Nesse & Lloyd 1992; Schore 1994 pp.532-42). For this to happen, EP must disentangle the "*empirical observations*" of psychoanalysis "*from the complex theory in which they are often embedded*" (Nesse & Lloyd op.cit. p.602) and overcome "*the repugnance of some psychoanalytic discoveries*" (*ibid.* p.603). Having done this, EP can fruitfully inform psychoanalysis (and by extension, psychohistory) by showing the degree to which the complex emotional and psychodynamic architecture of the human mind can be considered an *emergent* property of long-evolved traits which may formerly have conferred adaptive strength on the EEA, even if these very traits are now proving highly maladaptive in the creation and management of complex societies. Some crucial steps in this direction have already been taken, especially in such fields as evolutionary psychopathology or EPP (Kennair op.cit. pp.46-51), ethnopsychiatry (Devereux 1980) and those disciplines claiming to take a so-called 'biopsychosocial' perspective (Kennair op.cit. p.46). Reciprocal gestures from the psychoanalytic community have been less enthusiastic, although there are important exceptions. Apart from Freud's foundational (and much criticised) work in EP (especially *TT* and *MM*), these exceptions include the largely ignored but highly significant contributions of psychoanalytic anthropology (Róheim, Devereux, La Barre, Stein and Apprey - see ch. 2.3), the work of such scholars as Badcock (1980, 1990), Barash (1979), Malan (1995), Trivers (1985), the psychogenic theory of Lloyd deMause (1982, 1999, 2001, 2002), and finally, above all, the recent insights of pre- and perinatal psychology. The main challenge facing psychoanalysis is to answer EP's critique of Freud's ideas on recapitulation theory and his supposed 'Lamarckism' (Kennair op.cit. pp. 47-50), although this critique is based on an ignorance of advances on the psychoanalytic front since the time of Freud. Psychoanalysis has also been criticised by traditionally-minded social psychologists as well as evolutionary psychologists for being 'ahistorical', but this supposed 'ahistoricity' derives from the fact that the collective substrate of generic trauma is constantly renewed - a world-wide cohort of zygotes are conceived every second, and each zygote commences its journey along a common axis of morphogenesis directed by an inherited genetic programme whose evolutionary rate of advance is too slow to be directly perceived. It is in the light of this that Freud's alleged 'recapitulation theory' must be reappraised and reformulated. 'Lamarckism' requires a similar reformulation in the light of what we now know about the effects of maternal emotional states on the unborn fetus and the transgenerational communication of emotional patterns, meme complexes and mental representations within the infant-caregiver dyad and the

highly conservative structure of the family. The psychoanalytic studies mentioned above, when combined with and expressed in terms of, evolutionary process, can go a considerable way towards resolving the many problems that currently plague *gene-culture co-evolutionary theory* or GCCET.

GCCET evolved in an attempt to establish once and for all that both nature and nurture combine in a complementary process (Cavalli-Sforza & Feldman 1981; Lumsden & Wilson 1981; Boyd & Richerson 1985; Durham 1991; Feldman & Zhivotovsky 1992; Laland 1993; Feldman & Laland 1996; Buss 1999 - to name but a few). From the perspective of GCCET, genetically-determined, content-specific mechanisms already present in the newborn through having evolved over a sufficiently long period on the EEA will *facilitate* the acquisition of culture rather than constrain it (Barkow *et al. op.cit.* p.24; Lumsden & Wilson *op.cit.* pp.11-12)[1], while from the perspective of psychoanalysis, it is the encoding of transmarginal stress along the species-specific axis of morphogenesis that creates the substrate for a collective unconscious - a shared, morphogenetically-contingent, psychodynamic base that will later unfold in response to a variety of environmental and cultural fitness landscapes and the socialisation patterns of the human groups embedded within them.

Once these bridges have been secured (in both directions) EP and psychoanalysis can join with GCCET in providing what Nesse & Lloyd call a 'converging focus' that will help to establish a theoretical basis for linking biological and cultural evolution as well as clarifying the evolutionary origins of what we recognise as ego and group defensive constructs. "*This converging focus on human information-processing mechanisms may give new significance to psychodynamics. Cognitive and evolutionary psychologists may find in psychodynamics careful descriptions of traits that may closely match the functional subunits of the mind that they are seeking. Psychodynamic psychologists and psychiatrists may find in evolutionary psychology new possibilities for a theoretical foundation in biology*" (*op.cit.* p.601).

With this in mind, it is possible to trace the evolutionary origins of the psychodynamic mechanisms that emerged through individual morphogenesis, infant-caregiver dyadic interaction, family role-assignment, socialisation and group process over the long epoch of human phylogenesis on the EEA.

6.2. Basic evolutionary mechanisms.

The dominant paradigm of the evolutionary sciences today is *neo-Darwinism* - a synthesis of Charles Darwin's theory of evolution by natural selection (Darwin 1859, 1871) and the insights of modern genetics. Neo-Darwinist theory holds that the 'unit' of natural selection is the individual *gene* (Dawkins 1976). The fundamental group of genes

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[1] Which is to say that these mechanisms, by facilitating the acquisition of culture through creating preferences and biases, also necessarily *constrain* the number of choices available, leading to Lumsden & Wilson's formulation of the *Leash Principle*. But if there were no constraints at all, the perpetual recurrence of waiting times for departure from the *tabula rasa state* (Lumsden & Wilson *op.cit.* pp.31-33) would prove the biggest constraint of all, rendering the acquisition and transmission of an evolutionarily-stable culture virtually impossible.

common to all members of a particular species is called the *genome* and the assembly of genes drawn from the base genome that belongs to a particular individual forms that individual's *genotype*. Individual genotypes exhibit a degree of variance in comparison to the base genome, this variance being a function of the transmission process from parents to offspring. The expression of an individual's genotype in response to selective pressures operating in that individual's environment creates the *phenotype* or living organism through a process called *epigenesis*, and the contribution of each individual gene to the overall reproductive fitness of the phenotype under selective pressure will affect the likelihood of transmission of that gene from one generation to the next (Dawkins *op.cit.*). A group of organisms sharing the same base genome and living together in a similar environment is called a *population* of a given species. Populations exhibit degrees of genetic variance among the phenotypes that comprise them. This variance tends to be much higher *within* a particular population (*intrademic* variance) than *between* any two given populations (*interdemic* variance). These differences between intrademic and interdemic variance are due to sexual reproduction: intrademic (within-group) genetic variance serves as a barrier to disease transmission in sexually-reproducing hosts whose lifespans are much longer than disease-bearing micro-organisms (Badcock 1994 pp.159-60). Selective pressures acting on populations as discrete groups give rise to *group selection*. Group selection is not a popular concept at the present time but such selection *can* operate very effectively when the selective influences deriving from *culture* are factored into the equation.

Selective pressures acting on individuals or groups give rise to *traits*. Traits may be physical (modes of perception, phenotypic design etc.) or behavioural (reproductive strategies, childrearing modes, social relationships or culturally transmitted patterns of thought). Traits that have become deeply encoded over a very long period of time on a comparatively stable environment such as the human EEA are termed *adaptations*. Adaptations tend to have a high degree of *generic entrenchment* - i.e. they evolve, but at an extremely slow rate. They are also said to have low *heritability* - i.e. they contribute minimally to the degree of genetic variance within a group or population - and arise through *primary epigenesis* - the deepest and most structurally stable level of genotype-phenotype translation (Lumsden & Wilson 1981). Species-specific traits tending more towards the behavioural will be of comparatively more recent evolutionary origin - although still products of the EEA. These traits will exhibit low to moderate levels of generic entrenchment and heritability and will account for degrees of variance that cluster around the mean of the binomial distribution of behavioural variance observed for any given species - still well within the standard deviation. They are the product of *secondary* epigenesis (mate selection, reproductive strategies etc.) and evolve at a slightly faster rate than the more deeply entrenched adaptations. They may combine to form variable but structurally-stable patterns of behaviour termed evolutionarily-stable strategies or ESS's (*ibid.* p.24). Some cultural traits are of this type. At a more immediate, surface level (decades or centuries), individuals and groups are constantly adapting to minor changes in the environment (both physical and social). Traits that develop and are communicated transgenerationally at this level tend to exhibit low generic entrenchment and moderate to high heritability (e.g. childrearing modes, social structures etc.). They account for behavioural patterns lying close to or occasionally beyond the standard deviation from

the mean of species-specific variance and may be said to develop through *tertiary* epigenesis. Most cultural traits are of this type and are communicated *memetically* rather than genetically.

The three levels of trait evolution discussed here are not bounded or discrete. The more deeply entrenched adaptations at primary and secondary epigenetic levels constrain and influence, to varying degrees, the range of adaptive choices available at the tertiary level depending on the nature and severity of any presenting environmental challenge. These constraints and influences arise due to the connection between genetic and memetic evolution.

6.3. Meta-evolution

Meta-evolution is the study of how the 'rules' of evolution (as we perceive them) themselves evolve. Meta-evolutionary change involves a process hierarchy operating from the 'bottom up' (for the purpose of scaling) and the trajectories of longer pathways of evolutionary change can only be guessed at for the present, rather than observed directly. The macrovariables that determine the overall evolution of the biosphere include climate, atmospheric composition and pressure, strength of the Earth's gravitational and magnetic fields and ultimately, the duration and evolution of the main-sequence phase of the Earth's parent star - the Sun. These factors interact with the properties of fundamental biochemical building blocks such as water, carbon, hydrogen, nitrogen etc. to establish the basic self-organising patterns and processes, as well as the overall evolutionary path, of terrestrial biochemistry (Barrow & Tipler 1986 pp. 510-75).

The 'canonical' mechanisms of natural selection according to Neo-Darwinist theory are random mutation, recombination and genetic drift. But these mechanisms alone cannot explain how the evolutionary trajectories of so many species have succeeded in containing the more deleterious effects of random mutation and maintained structural stability in the base genome while at the same time enabling swift adaptive responses over millions of years in the face of a wide variety of environmental challenges. 'Buffering' strategies against statistically random selection must have evolved in order to maintain this delicate balance between stability and flexibility at the 'edge of chaos' (Kauffman 1993 pp. 255-6). Andrew Lehman writes:

"The process of evolution, the rules of species transformations, evolves. The rules change. Different rules apply to different species, the rules becoming more intricate and subtle with an increase in complexity in hormonal systems. Ancient species are still evolving exclusively according to random variation unlike more recently evolved complex species with longer ontogenetic histories. Each species needs to be examined for its signature methods of transcending the random variation barrier. Each human individual can be explored for his or her response to environmental messages mediated through a genetic history revealing a map of the responses of our past" (Lehman 2001 p.9).

6.4. Human strategies for transcending the random variation barrier

Citing studies by Gould (1977), Matsuda (1987), McKinney & McNamara (1990) and Gottlieb (1992), Lehman proposes that evolution is a four-part process combining environmental influences, selective processes, hormonal intermediaries and heterochronic patterns (Lehman 2001, 2003). In the evolutionary history of *H. Sapiens*, the random effects of mutation, recombination and genetic drift have been contained by *sexual* selection, *uterine* selection and *zygotic* selection, and it is *female* sexual selection (i.e. choice of partners) that has been a critical factor in human cultural evolution. According to Lehman, uterine and zygotic selection are responsible for the *heterochronic patterns* appearing in evolutionary history. Heterochrony or heterochronicity refers to the ability of an organism to alter the rate or timing of maturation of that organism's progeny (i.e. to control the onset of puberty) in response to environmental factors (Lehman 2003 ch. 7 p.2; Gould 1977 pp. 481-2 (definitions), 209-351 (extended treatment)). In other words, *"we are able to adjust the characteristics of our children based on messages we receive from the environment"* (Lehman *op.cit.* p.2). This adjustment is achieved by controlling hormonal composition and flow (especially of testosterone) within the intrauterine environment, thus determining the maturation rate of the fetus and ultimately, the duration of the latency period prior to adolescence. This is the mechanism of Lehman's *hormonal intermediaries.*

While Lehman is unsure of the exact mechanisms involved, we will recall the role played by quantum-level processes in enzyme catalysis and in determining the chirality of molecular groups, as well as the conformational states of protein molecules and microtubulin architecture. We will also recall how quantum processes are translated 'upwards' into the domain of 'classical' biochemistry, and how feedback processes at this level communicate environmental experiences back to the domain of ultrastructure. This is how 'neo-Lamarckism' might be reconsidered - in terms of feedback systems through which lived experience at organic and organismic levels can modify the type and periodicity of quantum coherence-inducing waves that direct the conformational states of genetic ultrastructure (Hameroff & Penrose 1995). Such processes affirm the depth and fluidity of genetic response to lived experience and illuminating the deep-level mechanisms at work in the encoding of experiential trauma (both generic and inflicted), in female sexual selection, uterine selection and zygotic selection, as well as in the infant-caregiver dyad where both the quality and reciprocity of the dyadic relationship directly influence the growth and interconnectedness of affect-regulating neural pathways in the orbitofrontal cortex (Schore 1994; see ch. 6:4).

Biomedical research offers independent support for the existence of a) feedback processes between lived organic experience and molecular ultrastructure and b) mechanisms that buffer the organism against the deleterious effects of random mutation. This research involves the discovery and study of so-called 'chaperone' proteins such as protein hsp90 (Holmes 2002). The function of these proteins is to bind and contain mutations occurring during transitory episodes of environmental stress and to store these mutations against the possible recurrence of such stresses in the event of long-term environmental change. The steady accumulation and ultimate 'overload' of hsp90-stored

mutations over the lifespan have been implicated in the onset of many diseases associated with the ageing process, such as cancer, heart disease and diabetes (*ibid.* p30). Shifts in hormonal balance (especially testosterone) arising from dissonance between long-term heterochronic effects and the far shorter-term stresses of the social environment have also been identified by Lehman as contributory factors in the onset of certain neurological dysfunctions such as dyslexia and auto-immune disorders (Lehman 2001 pp.6-7; 2003 section IV). Heterochronic patterns are a therefore a significant factor in determining the average lifespan of individuals in a given population, and may cast further light on the role played by social stress in the ageing process.

Lehman lists eight environmental microvariables that induce changes in hormonal composition and flow and therefore influence female selective strategies and heterochronic patterns. These include light (Geschwind & Galaburda 1987), diet (Schmidt *et al.* 1997), body fat (Glass *et al.* 1977), alcohol and drug usage (Castilla-Garcia *et al.* 1987) including tobacco (which affects estrogen levels: MacMahon *et al.* 1982), levels of physical activity (Morville *et al.* 1979; MacConnie *et al.* 1986) and factors that correlate strongly with population density such as pheromone concentrations, dimensions of personal boundaries, touch and stress (James 1986). These surface, physical variables operate both at individual and population levels and are deeply embedded in a correlation matrix with factors that determine the modes of cultural transmission, such as mate selection, reproductive strategies, childrearing modes, meme complexes, social structures and the trans-lifespan role assignments characteristic of a given group. While these factors are highly variable, the actual modes of transmission tend to be fairly consistent between human groups.

6.5. Modes of cultural transmission

Cultural transmission is effected both within groups (*intrademic* selection) and between groups (*interdemic* selection: Barrett *et al.* 2002 pp. 369-75). Intrademic meme transmission can be *vertical* (i.e. from parents to offspring), *horizontal* (through peers) or *oblique* (through, older relatives, teachers or other extrafamilial sources such as group leaders, media figures etc. - Cavalli-Sforza & Feldman 1981 pp. 53-64 and chs. 2-4). As with genetic variation, random memetic variation is contained and controlled - in this instance by various *bias modes* rooted ultimately in individual and group psychodynamics. These bias modes involve a) *direct bias* (parental and familial psychodynamic structures), b) *indirect bias* (the influence of teachers, high status individuals and the group 'social trance') or *frequency-dependent bias* (peer pressure or the effect of group psychodynamics). Interdemic selection also involves these same combinations of transmission and bias modes (Boyd & Richerson *op.cit.* chs. 3, 7 and 8).

While heterochronic patterns and other mechanisms containing the possibly deleterious effects of random mutation are determined by the 'deep-level', species-specific evolutionary substrate, they are 'filtered' through the seemingly 'ahistoric' base level of generic trauma created by that substrate - i.e. the psychodynamic residue of transmarginal stress induced through morphogenesis and passage through the pre- and perinatal matrix, a fundamental consequence of which is a set of unconscious paranoid-

schizoid response mechanisms in the face of environmental stress. In the course of this filtration process, environmental variables may engage directly with heterochronic patterns to aggravate the base level of generic trauma, and it is the correlation of all these factors taken together that determine modes of cultural transmission (Fig. 6.1 below).
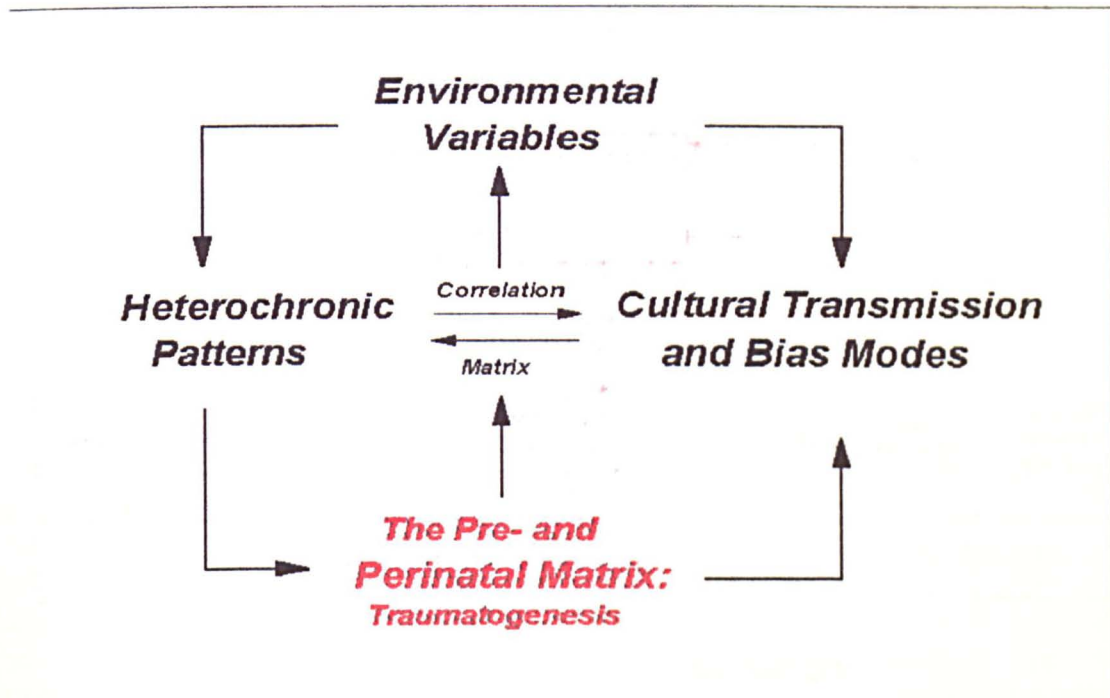

Fig. 6.1: Integration of Heterochronicity and Cultural Transmission with the Pre- and Perinatal Matrix

The main meta-evolutionary levels discussed so far are displayed schematically in Fig. 6.2 below. These levels are separated by 'fuzzy' boundaries in order to stress that they are not clearly demarcated, but blend into each other through a variety of feedback processes.

Level	Translation Modes	Evolutionary Rate	Individual Selection	Group Selection	Generic Entrenchment	Heritability
Cultural Evolution	Tertiary Epigenesis	Rapid	**Bias Modes** Direct Indirect Frequency-Dependent	**Transmission Modes** Vertical Horizontal Oblique	Low	High
			Cultural	*Heterochronic Patterns*	*Level*	
Gene-Culture Coevolution	Secondary Epigenesis	Intermediate	**Female Selection** Sexual Zygotic Uterine	Intrademic Interdemic	Moderate	Moderate
			Genetic	*Stabilising Forces*	*Level*	
Natural Selection (Genetic)	Primary Epigenesis	Slow	Random Mutation Recombination Genetic drift		High	Low
			Ultrastructure			

Fig. 6.2: Levels of Evolutionary Process

6.6. The role of heterochronicity in human foetalisation.

Neoteny is defined as "*the retention of juvenile characteristics into adulthood produced by retardation of somatic development*" (Gould 1977 p.483). Also known as *paedomorphosis* or *foetalisation*, neoteny is an evolutionarily stable strategy arising from a confluence of factors relating to the evolutionary history of a given species. While it is becoming increasingly clear that a far greater number of larger primate and hominid genera roamed the planet prior to and during human emergence on the EEA than have survived to this day (Tattersall 1998, 2003; Tattersall & Schwartz 2000), it is by no means clear why the *human* branch of the hominid genus among all other primates should have become neotenous, although there are 4 co-evolutionary factors that may have contributed to and catalysed, this phenomenon.

1) The original tree-dwelling ancestors of Homo Sapiens were already a closely bonded group.
2) A major fissioning of the adaptive landscape took place, forcing a transition from the more secluded ancestral habitat to the more open and competitive environment of the savannah.
3) The social structures of the group were forced to change and adapt to this new environment. This change in itself may have been highly traumatic.

4) These forced adaptations in the group's social structures were compensated for by contingent heterochronic shifts.

In *TT* Freud offered what he called a 'metaphorical condensation of a slow and complex evolutionary process' to explain the genesis of the original human 'primal horde'. For the human ancestral group on the EEA, transition to the savannah may not only have been the consequence of fissioning in the adaptive landscape, but may have been part of a longer, more complex process involving climate change. Badcock (*op.cit.* ch.1) proposes that shifts in social structure following the savannah transition culminated in the Freudian version of the primal trauma. This is only part of the story. While social structures were indeed forced to adapt in response to the far more stringent survival demands of savannah life, I would propose that it was the underlying heterochronic response to these shifts over a long period of time that eventually fixed neotenous developmental paths within the genome.

We have already defined heterochronicity (or heterochrony) as the capacity of an organism to alter the developmental rate of its progeny in response to environmental input. In humans, this is accomplished by adjusting the rate of hormone flow in the fetus - especially *testosterone*. Reduction of testosterone encourages retardation of somatic development while testosterone increase promotes its acceleration (Matsuda 1987; McKinney & McNamara 1990; Lehman 2000). *"By prolonging growth...,"* writes Lehman, *"one of the net results is increased brain and cranium size"* (*op.cit.* p.4). High-testosterone (high-T or (+ +)) males are characterised by smaller overall brain size, increased lateralisation of cerebral function, a thinner corpus callosum (restricting information flow between the two hemispheres) and overall right-handedness (Lehman & Bernsten 2003, section IV). Low-T males (- -) are characterised by a larger overall brain size, less lateralisation of cerebral function, a thicker corpus callosum and overall random-handedness (an ability to use both hands indiscriminately). High-T *females* (- -) on the other hand tend to display obverse characteristics to their male counterparts - a higher degree of cerebral symmetry and random-handedness, whereas low-T females (+ +) are characterised by greater cerebral lateralisation (asymmetry) and right-handedness. Of the world's population today, 18-19% have genotype (- -), 32-33% have genotype (+ +) and 49% are a mixture of both types (- +). The balance at this point of time is the result of fluctuations extending over the period of human emergence on the EEA.

Badcock and Lehman offer differing accounts of this emergence, although these histories do not necessarily contradict one another. Badcock follows Freud in maintaining that the foundational human social structure on the EEA was patrifocal (the 'primal horde'), while Lehman & Bernsten assert that the earliest social structures were matrifocal. Tanner (1981) noted that *"patriarchal beliefs and cultural biases blinded Darwin* (and later Freud - my note) *to interpretations of sexual selection based on female choice as the central driving force in human evolution for two million years which effectively guided human evolution and created the foundation for culture, until the recent advent of patriarchal structures"* (cited in Lehman 2000 p.4). These polarised views can be reconciled through a closer study of heterochronic effects in human evolution and their interaction with other evolutionary processes.

The social structures of the earliest arboreal human ancestors were probably closest to those of the Bonobo chimp (*pan paniscus* - see de Waal & Lanting 1997) in being matrifocal (or matriarchal), comprising high-T females and lower-T males. After the savannah transition, new environmental challenges may have encouraged a shift towards patriarchal structures (the 'primal horde') similar to those of the gelada baboon (*theropithecus gelada*), comprising high-T males and lower-T females. This shift may have been traumatic and conflicted due to the T-balances laid down during the arboreal past, such that the new human 'primal hordes', unlike those of the gelada, never settled into a stable, fixed pattern. If we follow Badcock in assuming that the younger, immature males already possessed neotenous tendencies, that the resulting cranial expansion enhanced co-operative hunting skills but greatly exacerbated generic trauma due to upright posture and constriction of the birth canal, and that these immature males had already inherited a high degree of collective separation trauma, it is clear why power struggles may have been frequent, leading to the 'assassinations' of formerly dominant males. The subsequent power struggles among the newly 'liberated' higher-T males in the contest for inheritance must frequently have led to wars of attrition, and ultimately to the demise of the entire group. It is at this point that heterochronic shifts took effect. Those groups that survived and propagated may have been those in which females continued to select low-T mates with greater tendencies for co-operation, not only in the acquisition of resources, but in the formation of ritual practices whose purpose was to contain the psychodynamic residue of generic and social trauma through controlled re-enactment involving re-traumatisation through initiation rites, rebirth rituals, ancestor worship and totemism - the foundations of what we call 'culture'. These surviving groups were probably the direct ancestors of the Cro-Magnon, whose descendants would in time develop agriculture, pastoralism and begin to form complex societies.

As Lehman points out, the evolution of more complex social forms was a consequence of the evolution of language. While totemic rituals require greater right-brain dominance, evoking receptivity to primal trauma so that re-enactment can be experienced collectively, the evolution of language in sequential, symbolic form, essential for the creation and management of more complex societies, requires greater lateralisation of hemispherical function and increasing left-brain dominance. As societies complexified, females began selecting high-T mates capable of linear, sequential organisation of thought, leading to the ultimate emergence of patriarchal structures, and "*when a fully linear language appeared, female and male evolutionary trajectories diverged*" (Lehman 2000 p.5). When patriarchal structures predominate, sexual dimorphism and culture-enhanced gender differentiation increase along with female infanticide - "*patriarchal culture's method for keeping only high-T males in the procreation pool*" (*ibid.* p.6). No 'conspiracy' is involved. Heterochronic patterns are not consciously planned, but are a response to environmental and social factors at the level of ultrastructure - "*a hormonal re-enactment of the changes that all our ancestors engaged in*" (ibid. p.2).

The earliest human bands were widely dispersed and subsequently pursued a variety of evolutionary trajectories before some of them condensed to form more complex, stratified societies that continued to develop at different rates. As a result, the overall T-balances (and corresponding traits) in contemporary human societies are mixed, forming

a distribution biased slightly towards the right (+ +) in Fig. 6.3.below. T-balances are never static - heterochronic shifts continue to operate within the human species, therefore Fig. 6.3 shows this distribution, not as a normalised curve, but in the form of Gould's developmental arc or 'heterochronic clock' (*op.cit.* pp. 246-262), as modified by Annett in terms of Right Shift Theory (Annett 1985; Annett & Manning 1990; Annett *et al.* 1996) and by Lehman & Bernsten (2003).
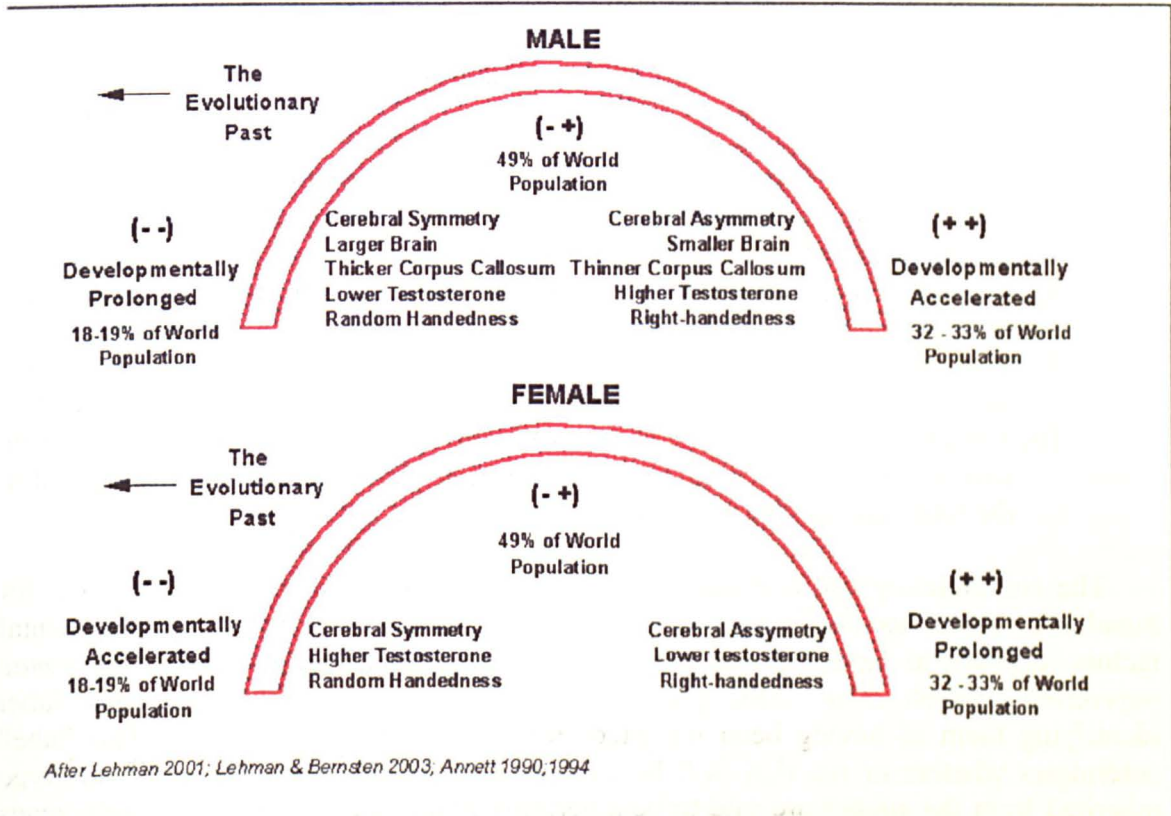
MALE

The Evolutionary Past

(- +)
49% of World Population

(- -)
Developmentally Prolonged
18-19% of World Population

Cerebral Symmetry
Larger Brain
Thicker Corpus Callosum
Lower Testosterone
Random Handedness

Cerebral Asymmetry
Smaller Brain
Thinner Corpus Callosum
Higher Testosterone
Right-handedness

(+ +)
Developmentally Accelerated
32 - 33% of World Population

FEMALE

The Evolutionary Past

(- +)
49% of World Population

(- -)
Developmentally Accelerated
18-19% of World Population

Cerebral Symmetry
Higher Testosterone
Random Handedness

Cerebral Assymetry
Lower testosterone
Right-handedness

(+ +)
Developmentally Prolonged
32 - 33% of World Population

After Lehman 2001; Lehman & Bernsten 2003; Annett 1990;1994

Fig. 6.3: The Heterochronic Arc

How did a shift to high-T male selection (and hence to patriarchy) have come about? If intergroup aggression began to increase as groups became more complex and stratified, why did females not pursue the ancient strategy of selecting for co-operative, low-T males? This issue would again appear to involve multiple factors arising from a) the self-reinforcing drive towards increasing social complexity and b) the inherent instabilities of social complexity. The following factors appear to be involved:

1) The increased level of birth trauma as a result of cranial expansion and foetalisation.
2) The evolution of more complex collective strategies of intrapsychic defence in order to cope with this increase in trauma as earlier modes of repression became unstable.
3) Shifts in childrearing modes to permit the evolution of these strategies, resulting in a more diversified psychoclass structure.

4) The subsequent expansion and complexification of social structure in order to incorporate new psychoclass roles and maintain the overall stability of the governing collusionally-defensive construct.

5) The continuing destabilisation of these constructs as groups complexified and expanded beyond their capacity to sustain them, leading to a 'return of the repressed'. This suggests the ever-expanding cycles of repression and re-repression as schematised by Badcock (1984) or the 'fractally-expanding' patterns of religious evolution studied by Slater (1964).

6) The institutionalisation of heightened aggression among more complex social groups through endemic, symbiotic forms of conflict (projective-introjective) both within and between groups.

7) The attractions of social complexity - the seeming power to contain collusional modes of defence through power over others (projection) and over the environment.

8) The self-reinforcing expansion of linear, sequential and left-brain dominated thinking in order to sustain this complexity.

9) The relentless tendency of more traumatised, less advanced psychoclasses (always in the majority) to collude in the seizure and maintenance of power.

10) The gradual capitulation and assimilation of females to these forms of social structure (Gruen 1992) in the interests of maintaining group cohesion and in the long run, survival of offspring.

The contradictory and ambivalent pull of heterochronic patterns over time, i.e. for females to select low or high-T mates according to psychosocial or environmental factors, appears to have left traces in the human genetic legacy - that of *genomic imprinting* (Barrett *et al.* 2002 pp. 24-25). Certain genes carry a biological label identifying them as having been inherited from the mother or the father. This 'label' determines whether or not they will be expressed in the offspring. Genes of this type inherited from the *mother* are said to be *paternally* imprinted (i.e. silenced) while genes from the *father* are said to be *maternally* imprinted. Some disagreement exists as to the actual function of these genes. Moore & Haig (1991) propose that maternally imprinted (suppressed, paternally-inherited) genes code for rapid and expansive (high-T) growth of the fetus, while their paternally imprinted counterparts code for more gradual and neotenous (low-T) growth. Mc Vean & Hurst (1997) question this on the basis that such imprinted genes are expressed at a much slower rate than non-imprinted genes - an unlikely situation if such genes actually do encode for *fetal* growth rates. However, Keverne *et al.* (1996) found that certain paternally imprinted (maternally inherited) genes code for development of the neocortex while their maternally imprinted counterparts code for the more evolutionarily-ancient areas of the limbic system, including the amygdala and hypothalamus, whose functions are associated more with 'emotionally-based', 'right brain' processes. It would appear therefore that it is the *maternally-transmitted* genes that code for structured intelligence, while the paternally-transmitted genes code for 'emotionality'. It is the interplay between heterochronic factors and socioeconomic/sociocultural history that explains the current diversity of matriarchal and patriarchal social structures in human groups.

6.7. Psychohistorical Evolution.

We have suggested how increasing, heterochronically-induced foetalisation (neoteny) and the development of upright posture may have exacerbated generic trauma through the combination of cranial expansion and additional stresses on the birth canal. The loss of body hair (a consequence of neoteny) and transition from an arboreal to a savannah environment (requiring constant mobility) further promoted dependency in the traumatised infant, who could no longer cling to the mother by her body hair (as primate infants do) but had to be carried everywhere. deMause sees these factors as promoting an incestuous, symbiotic bond between mother and child (1989 p.362). This has always been viewed as deMause's most controversial thesis, contradicting, as it does, the widely-held assumption of the 'incest taboo'. Taboos however, are set in place to contain and repress powerful, socially-unacceptable desires. If a 'genetic law' prohibiting incest actually existed, taboos would not be necessary. Psychoanalytic studies of taboo function (Freud 1913; Róheim 1950; Devereux 1980; Stein & Apprey 1987; Edgerton 1992) suggest that taboos must periodically relaxed under certain conditions to permit re-emergence of the repressed wish - ultimately so as to re-identify and re-contain it, thereby strengthening the defensive function of the original taboo. In many cultures, repressed wishes are granted a permanent outlet through the collusional institutionalisation of specifically sanctioned practices (e.g. ritualised pederasty - see deMause *op.cit.* p.363; Egerton *op.cit. passim*). DeMause goes on to explain that "*mothers who consistently hung on to their infants ... were favoured, giving a selective advantage to those who used their infants for sensual satisfaction*"(*op.cit.* p.362), that "*this may also explain the adaptive value of continual sexual arousal in the human female*" (*ibid.*) and concludes by listing seven evolutionary factors that may have selectively favoured 'the erotic bonding of parents and children':

1) loss of body hair,
2) the development of upright posture,
3) the substitution of erotic clinging for primate grooming,
4) the development of continuous sexual arousal in the female,
5) the development of the more 'erotic' breast,
6) greater infantile helplessness (neoteny), and
7) the inability to expel all infants from the group because of neoteny-induced dependency (although this does not preclude selective abandonment - see below).

To these should be added the physical factors that exacerbate birth trauma in the human infant:

8) Complications in the structure of the human birth canal due to a confluence of evolutionary factors. Upright posture requires an S-shaped spinal column to carry the full weight of the body. This produced a bend in the birth canal, in which the upper opening is oval from side to side while the lower opening is oval from back to front - requiring a 90-degree rotation of the fetus during transition (Janus 1997 pp. 12-13; Rosenberg & Trevathan 2003 pp. 82-3).

9) The case of the 'missing centimetre' in the ratio of cranial size to pelvic opening - fetal cranial size from back to front is approximately 10 cm., shoulder width approximately 12 cm while the pelvic opening in the human female ranges from 10-13 cm., leading to frequent cases of brain haemorrhage during the *average* birth process (Wischnik 1989; Janus *op.cit.* pp.52-3; Rosenberg & Trevathan *ibid.*).

10) Cranial expansion and greater cerebral complexity in the human infant, which produce greater sensitivity to trauma and a far more psychologically-fragile state of dependency.

Any annealment of the emotional residue of generic trauma and the strengthening of defences against it must occur, if at all, during the earliest phase of infancy. If this annealment process is flawed, the defensive constructs that contain and control the residue of generic trauma will not be sufficiently compactified and the infant will be far more vulnerable to post-natal (inflicted) trauma. It is the balance between the residual level of generic trauma and the degree of subsequent annealment in early infancy that determine the relativity of traumatic impact later in the life of an individual - i.e. some things will have far more serious consequences for some people than for others. This is because the ratio of generic to inflicted trauma influences the stability of the intrapsychic defences laid down over the life of the individual (beginning with the impact of generic trauma) as well as the type and maturational potential of the personal defensive constructs formed by these defences and thence the overall capacity of the individual to resist the temptation to regress in moments of acute stress. The less stable these constructs, the more they will need reinforcement by integrating them with the group defensive construct through the binding mechanisms of projection and introjection - an extension of infantile dependency. The question arises - why are groups prone to regress far more quickly to far more primitive (prenatal) levels than individuals?

Most human evolution on the EEA occurred within small compact groups of perhaps 10-25 individuals (the 'hunter-gatherer band') closely linked through kinship. Convergence of such groups to form 'tribes' of about 150 individuals was exceptional, yet frequent enough over time for this number to represent the 'cognitive limit' on group size (Barrett *et al.* 2002 pp. 244-53). Early groups were therefore for the most part 'extended families'. Exploitative, abusive, 'symbiotic' childrearing, the function of which is to use the child projectively, both as a 'container' for parental anxieties and as a 'personal' outlet for socially-suppressed sensual needs, will reinforce dependency and decrease the ability of the child to individuate, thereby increasing *primal* (i.e. pre- and perinatally-derived) separation anxiety. The 'sharing' of children between members of the early group for such purposes, the high rate of mortality through neglect or infanticide (precipitating survivor trauma)[2] and the further re-traumatisation of surviving children through the 'initiation' rites that grant them formal acceptance by the group - all these factors ensure that separation anxiety will first be exacerbated, then perforce transferred from the 'actual'

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[2] With the emergence of patriarchy, female infanticide became patriarchy's way of ensuring that only high-T males remained in the procreation pool (Lehman 2000 p.6). A GCCE analysis of the summed effects of selective female infanticide on the sex ratios of societies still practising this R-type strategy is presented in Kumm *et al.* (1994).

body of the original mother to its wider surrogate - the group itself - as a 'binding strategy'. This is suggested by the fact that re-traumatisation, orchestrated through the rituals of initiation ('beginning', i.e. rebirth), is a re-enactment and reinforcement of birth trauma performed in order to exacerbate feelings of post-natal infantile dependency (and early separation anxieties) and transfer them to the wider group.

6.8. The evolutionary origins of the paranoid-schizoid defences.

The intrapsychic defensive mechanisms recognised so far by psychoanalysis unfold from the archaic substrate of the generic 'splitting' process (Wasdell 1980a, 1980b, 1985, 1990), and therefore, as numerous studies in transcultural psychiatry have shown, would appear to be species-universal (Devereux 1950. 1952, 1957, 1980; Stein & Apprey 1987; the *Lindner Field Reports*: Lindner 2000a-g, 2001a-f, 2002a-d, 2003a and 2003b). This would suggest that these mechanisms must have evolved in the distant past and become *evolutionarily stable strategies* (ESS's) in the field of human relations, and that the neural architecture for each of these mechanisms must therefore show a 'coarser', more generic structure than the more finely-tuned cognitive architecture evolved during more recent epochs. Experimental verification of the neurobiological substrate of the dynamic unconscious still presents major challenges for fMRI researchers, but these challenges may eventually be met through an increasing refinement of brain-scanning techniques as well as by adopting a more generic, evolutionary approach to the study of neural networks. One such approach is offered by neuronal group selection theory or NGST (Edelman 1987, 2000)).

NGST is a topologically-based selectionist theory of neural development in which selective processes operate, not simply on single neurons or on gross anatomical elements in the brain, but primarily on *groups* or *populations* of neurons. Cited by deMause (1989), NGST is congruent with the theories of quantum-level selection discussed previously, with Haken's (1996) theory of *order parameter emergence* and with the domain hierarchy of psychohistorical analysis discussed in previous chapters, i.e. it is highly congruent with pre- and perinatal psychology, with Schore's (1994) theory of neural development in infancy and with the heterochronic processes discussed above (Edelman 1987 pp. 156-62). NGST can be summarised by three basic principles (Edelman *op.cit.* pp. 4-8; 2000 pp. 83-6).

1) *Developmental Selection:* from the very earliest developmental phases of the human organism (i.e from the beginning of *somatic time*), the gross anatomy of the brain unfolds epigenetically according to genes and inheritance, accompanied by an extensive, generalised diversification of neural structure and synaptic connectivity and the selection, over somatic time, of structurally variant neural groups called the *primary repertoire*. This structural diversity is generated by "*the developmental action of a variety of mechanochemical events regulated by cell and substrate adhesion molecules (CAM's and SAM's) which act to govern cell division, movement, death and differentiation*" (1987 p.5). This 'epoch of primary selection' includes the main transition points that generate the transmarginal stress and impingement related to generic trauma

as well as primary heterochronic effects and other influences arising from the state and behaviour of the mother.

2) *Experiential Selection:* the *secondary repertoire* of synaptic connectivity occurs from birth onwards through *"epigenetic modifications in the strength of synaptic connections within and between neural groups"* (*ibid.*) according to lived experience, i.e. the connectivity between proximate neural groups is strengthened or inhibited in response to influences in the postnatal environment (Hebbian reinforcement). This phase of experiential selection and adaptation includes all aspects of motor, cognitive and perceptual development in which the 'grosser' features of primary epigenesis are now refined through interaction with the external world. This highly 'personalised' selective phase includes the process of affect regulation and 'emergence of the self' through the laying down of bias pathways within the orbitofrontal cortex (Schore 1994), the main determinants of which are relationships with primary caregivers and members of the immediate or extended family. Schore's 'affect regulation' can be understood as part of a wider process *"relating epigenesis and heterochrony in neural development to morphologic evolution"* (Edelman *op.cit.* p.6), called the *regulator hypothesis.*

3) *Reentrant Neuroanatomy:* concurrent with both the above processes, a *global* network arises whereby the selected neural groups (each of which consists of neural bundles bound together as a result of competitive Hebbian learning and defined by synaptic networks of varying densities and connectivity patterns) are then *mapped into each other* through multiple and reciprocal synaptic links that can be either proximate or extended. Re-entrant neuroanatomy establishes *"coherent temporal correlations of the responses of sensory receptor sheets, motor ensembles and interacting neuronal groups in different brain regions"* (*ibid.* p.5). Stabilised neural groups interact to create *dynamic cores* or fields of meaning whose composition fluctuates from instant to instant. We propose that it is within this, more global network that further research may reveal the dissociative mechanisms linked to traumatic experience, the structurally-stable properties of the neural architecture of defensive constructs and ways in which the dynamic unconscious impinges on perceived reality (see ch. 7).

Apart from offering new insights into individual psychogenesis, NGST presents concise cerebral analogues for the key evolutionary mechanisms of variation, selection and heredity. The genesis and re-entrant linking of multiple neural groups results in neural *degeneracy* (i.e. functional redundancy) - a situation where varied populations of different structure can nevertheless be adapted to perform identical tasks. From this it can also be seen why, although the gross anatomical structures of the brain may be broadly identical between all members of a given species, the finely-meshed tuning of neural networks is different for each and every individual.

Edelman hesitates to propose any mechanism for the genesis of the dynamic unconscious (2000 p.189-90), although within the general framework of NGST, degeneracy and re-entrant neuroanatomy suggest certain hypotheses that will be explored in ch. 7. Given the generalised, transcultural nature of the intrapsychic defence mechanisms and their archaic origin as ESS's governing social relations, potentiation paths will be at least partially specified by the genome in terms of a *polythetic set* (Lumsden & Wilson 1981 p.27) of multiple-gene potentialities, evolved in response to low-heritable, generically-entrenched factors in human reproductive strategies, mother-infant bonding and group relations that are realised in the context of primary and secondary epigenesis. The various affect-derived mechanisms that go to make up the dynamic unconscious all form part of an unfolding chreod of binding processes that contribute to shaping the matrix of human relations at interpersonal, familial and group levels in response to increasing foetalisation (neoteny), increased generic trauma and increasing social density.

The archaic 'splitting' process generated in response to generic trauma incorporates an idealisation of the intrauterine state and the acute sense of its loss, the denial and dissociation of the traumatic events that precipitated that loss, and the repression, not only of the memories involved, but of the very act of repression. This substrate is alive and active in the newborn, who has moved from an atemporal state of containment in an aqueous environment, through a transition involving extreme constriction and pain, to total separation and exposure in an alien environment structured by the flow of time.

The neonate's instinctual response to this condition of utter helplessness and seemingly imminent annihilation is to seek protection and nurturance through reconnection to the now irrevocably-lost state of intrauterine stasis. Such reconnection is only possible through the mother, with whom the infant already shares a high level of psychobiological attunement. As we have seen in ch. 4, dialectic patterns of excitation and inhibition within the infant-caregiver dyad foster neural growth, synaptic connectivity and systems of affect regulation (Schore 1994), that ideally serve to contain, anneal and compactify the turbulent and chaotic residue of generic trauma, directing the infant's expanding perceptual and cognitive horizons towards the outer environment and binding them through the medium of the mother to stable 'selfobjects' or signifiers in the post-natal world. The bonds between infant and caregiver are forged through the mechanisms of *projective and introjective identification* for which, as Schore has demonstrated, real neural analogues exist (*op.cit.* p. 465). From the perspective of NGST, these are multiple bijective mappings[3] between the emergent neural groups of the infant and those of the caregiver, established through mutual perception, reciprocal affect and chemotactic response. These mappings are correlated and amplified by emotional weightings, collectively designated by Edelman as *value systems* (2000 pp.46-8) - dopaminergic/noradrenergic vectors that generate complementary dynamic cores (Schore's 'affective cores' - *op.cit.* p.279) between infant and caregiver. Schore's mental

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[3] A bijective mapping associates two sets through a one-to-one correspondence, such that one and only one member of its range is paired with each member of its domain. The situation within corresponding neural groups will be more complex. The 'members' are synaptic connections between neural groups and for every projective mapping $a \rightarrow b$ there will be a corresponding introjective mapping $c \rightarrow d$ (cf. ch. 4.6).

representations or 'imprintings' are the residual templates of these dynamic, affective cores that have impacted on brain structure and the central and peripheral nervous systems at critical periods of maturation through the synergetic, gene-regulated action of tropotrophic hormones such as ACTH and CRT (Schore *op.cit.* pp. 114-75) and the heterochronic effects of unfolding CAM and SAM cycles (Edelman 1987 pp.156-61). ACTH has been identified as a testosterone suppressant (Reber 1995 p.14), linking it to the high-T/low-T heterochronic 'arms race' discussed above. The genetic mechanisms that regulate morphogenesis and imprinting are not the nuclear genetic systems transmitted by Mendelian inheritance but the mitochondrial-DNA systems governed by maternal inheritance (Schore *op.cit.* p. 530).

Early mappings are preverbal and ambivalent - fields of condensed *meaning*, which unavoidably include experiences of frustration as well as fulfilment. In Kleinian terms, frustration and subsequent rage precipitate guilt and fear of maternal separation and abandonment, eliciting the survival strategy of *reparation* - first through emotional recoil ('reversal'), then through more subtly orchestrated strategies of reaction formation. This guilt and fear are rooted in pre- and perinatal fears of deprivation, loss and annihilation - the archaic imprintings of Edelman's value systems - so that the ambivalences inherent in the infant-caregiver dyad remain embedded within and constantly reactivate, the emotional residue of the earlier, pre- and perinatally-induced, paranoid-schizoid base (Wasdell 1980a, 1980b). It is clear that the neurobiology of mother-infant bonding is part of a long selective process that has resulted in a sequence of adaptive strategies necessary for the survival of a neotenous organism in a highly precarious environment. In developmental and behavioural psychology, earlier global processes constrain and influence later, more specialised ones (Schore *op.cit.* pp. 499-531; Satish 1997; Streufert & Satish 1997). The imprintings of early infancy assume major importance when the female infant matures and reaches motherhood. At this point there is a reversal of the bijective mappings of early imprinting as the imprinted patterns of the mother's infancy come to play a crucial role in shaping those of her child. In the case of the mother-daughter relationship therefore, imprintings are communicated transgenerationally and become generically entrenched, playing a crucial role in the shaping of culture. This 'dyadic genesis of unconscious affect' and the subsequent transgenerational communication of 'cultural emotional biases' (Schore *op.cit.* pp. 280-82) constitute the finely-structured 'neo-Lamarckian' dimension in cultural evolution unanalysed and incorporated into GCCET models as 'random' weighted variables.

In the course of maturation the child's perceptual and cognitive abilities permit an ever-increasing range of inclusion, differentiation, classification and integration of elements from the outer environment. As shaming strategies become increasingly deployed as tools of socialisation and control the child must seek protection from the fear of deprivation and abandonment and ensure survival either a) through regression - by pretending to be insufficiently mature to deal with the complexities of the shaming challenge (Nesse & Lloyd 1992 p. 610), or b) by developing new counter-strategies of denial, displacement (e.g. of rage onto a toy or younger sibling), reaction formation or condensation. These latter strategies - the 'classic' ego defences identified by psychoanalysis - involve the expansion of earlier projective-introjective constructs to

incorporate and integrate the ever widening range of elements (whether objects or persons) from the outer environment. Re-entrant neuroanatomy encourages the more primitive bijective mappings of early infancy to increase in domain, range and dimensionality and become shaped by the selective reinforcement and inhibition of synaptic pathways, as well as by selective cellular apoptosis ('pruning'). This process of expansion gives a new twist to Freud's earlier ideas of cathexis, decathexis and countercathexis. Whereas originally these ideas were vaguely conceived in terms of shifts in the strength of affect invested in particular objects by way of analogy with 'electric charge', we now conceive of them more precisely in terms of NGST as structurally-stable configurations of connectivity and relative strength between the synaptic elements of neural groups and the neurotransmitter paths or value systems, activated by primal fear and emanating from the more archaic, dissociated but ever-active pre- and perinatal cores that bias these configurations.

As the child enters into dependency relations with the wider group, he/she is encouraged to participate in collective rather than individual regression and to stabilise personal defensive constructs by integrating them with those of the group through role assignment. During later phases of maturation, survival requirements dictate a more subtle and conciliatory response to the demands of the collective, more 'Machiavellian' strategies (Byrne & Whiten 1988) operating in the field of human relations, especially if a less than equitable accommodation with the collective serves only to aggravate rather than anneal, personal intrapsychic conflict and must therefore be concealed. More mature, semantically-fixed systems of both personal and collective defence tend to be complex and flexible, permitting a wide range of integration. These involve the mechanisms of transference and countertransference, dominance and submission which enable the collusive, socially-sanctioned strategies of symbolification, mystification, rationalisation and sublimation - the edifice of culture. Fig. 6.4 shows the sequence of psychodynamic mechanisms as they unfold over the lifespan.

The Paranoid-Schizoid Archetype:
Intense traumatisation induced by unbearable pain and loss.
Splitting, dissociation and repression (denial).

The Pre- and Perinatal Phase:
origin of core defences

Preverbal

Projective/introjective Identification
Guilt
Regression
Dynamic preverbal morphologies:

| Reversal | Condensation |
| Displacement | Reaction formation |

Shame Induction:

Infancy and early childhood: the building of ego defences

Preverbal ──► verbal

Rigidity of Defensive Construct:

── Rigid: Generic
── Intermediate: Individuated.
---- Flexible: Diverse

Transference - Countertransference
Dominance-Submission
Dynamics
Embedding of defences within cultural constructs:

| Symbolification-mystification | |
| Rationalisation | Sublimation |

Adolescence and adulthood: maturation of defences

Verbal

Fig. 6.4: Unfolding of the Paranoid-Schizoid Defences over the Individual Lifespan.

In Fig. 6.4, the paranoid-schizoid defences are shown as unfolding from the substrate of pre- and perinatal trauma in 3 stages. Individual histories within the pre- and perinatal matrix may vary within certain boundaries and there are qualitative differences in trauma resulting from 'natural' parturition vs. caesarian section (ch. 4.3). Nevertheless, the *core* experience remains generic and ahistorical because the *basic* unfolding remains universally-shared and constantly regenerated. The most archaic defence mechanism (yet only the most recently identified by psychoanalysis) is that of 'splitting'. The splitting process occurs within an as yet unmyelinised, comparatively undifferentiated (though highly sensitised) neural mass, emerging from what was formerly experienced as a fully self-contained environment. The process is therefore global and holistic - the neural template for all future religious and mystical experience. The second stage is that of early infancy and childhood. With the gradual differentiation of perceptive abilities and the corresponding selection and refinement of neural groups, the postnatal environment comes to serve as an increasingly fractured 'mirror' for repressed traces of the earlier split experiences of the core. The identification of the outer with the inner and the bijective mappings of perceived correspondences through projection and introjection generate an increasingly diverse and flexible sequence of ego defences. As this developmental stage involves varied experiences of inflicted trauma and degrees of annealment, it gives rise to far more individuated histories. Later phases in this stage involve the integration of personalised constructs into those of larger groups and the partitioning of the population into psychoclasses. The third stage - that of maturation - incorporates personalised constructs into the formation of large-scale defensive fantasies at the cultural level where the mechanisms of transference and countertransference create containing patterns of dominance and submission between individuals and groups which finally stabilise as

networks of sado-masochistic relations between psychoclasses. Bound within these networks, collusionally-defensive constructs serve to contain and control the eruption of collective, core experience, scotomising any psychologically-threatening elements of external reality through elaborate exercises in discursive symbolism (Petitot 1978 p. 48 - see ch. 5.2).

Unlike the first stage, lasting nine months, the latter two stages are not chronologically-fixed but flow from one into the other at different rates depending on individual histories and the childrearing modes of the cultural matrix within which they are embedded. The total flow from top to bottom of Fig. 6.4 proceeds from simple to complex, from undifferentiated to differentiated, from preverbal to verbal and from individual to group. At the same time, as individualised constructs become integrated into ever larger and less stable group constructs, the regressive pull of the core increases, creating a cycle that moves from the infantile and undifferentiated, through the complex and differentiated, back again towards the infantile and undifferentiated. This cycle is not only 'verticalised' in terms of fluctuating group structures through which successive generations must pass (de Mause's 'narrow funnel of childhood'), but also 'horizontalised' in terms of the historical and psychosocial lifespans of individuals and groups. Within this cycle Stein's 'vicissitudes of group symbiosis' repetitively turn, anchored in the primal dissociative split that binds the cyclic vector of pre- and perinatal time beneath the onward flow of history and forms the paranoid-schizoid/depressive 'eddy' in which humanity is trapped.

It is this primal split between cyclic intrauterine time and unidirectional historical time that creates Lumsden & Wilson's (1982) gene-regulated 'leash' effect that restrains culture. Why is repression unstable (Nesse & Lloyd 1992; Badcock 1994)? Why do social perceptions of normality and deviance fluctuate over time within and between human groups? Why are collusionally-defensive systems so inherently fragile as to require periodic episodes, venues or outlets of socially-sanctioned relaxation for the very purpose of redefining and reinforcing them? Why do societies continually fluctuate between paranoid-schizoid and depressive positions? These phenomena are due predominantly to hysteresis effects between the different flow rates of the various evolutionary levels shown in Fig. 6.2: between low and high levels of generic entrenchment, between low and high levels of heritability, between heterochronic patterns and the base genome, between the brief differential trajectories of human lifespans and the longer homogenised trajectories of large groups and, above all, between the 'ahistorical' base of ever-renewed intrauterine experience on one hand and the fluctuating but irreversible flow of history on the other - in the direction of increasing population, social density and interaction, of increasing fragility of larger and more complex defensive constructs superimposed over an ever more diverse population base and the emergence of ever larger generational cohorts seeking the necessary conditions for trauma re-enactment. In large, diffuse and complex societies in their final phases of development, societies whose defensive constructs have become stretched, frozen and brittle, the pull towards regression will cause personal and small group survival strategies to become far more 'Machiavellian' than in early-phase societies whose group interrelationships and boundaries are still containable and comparatively secure.
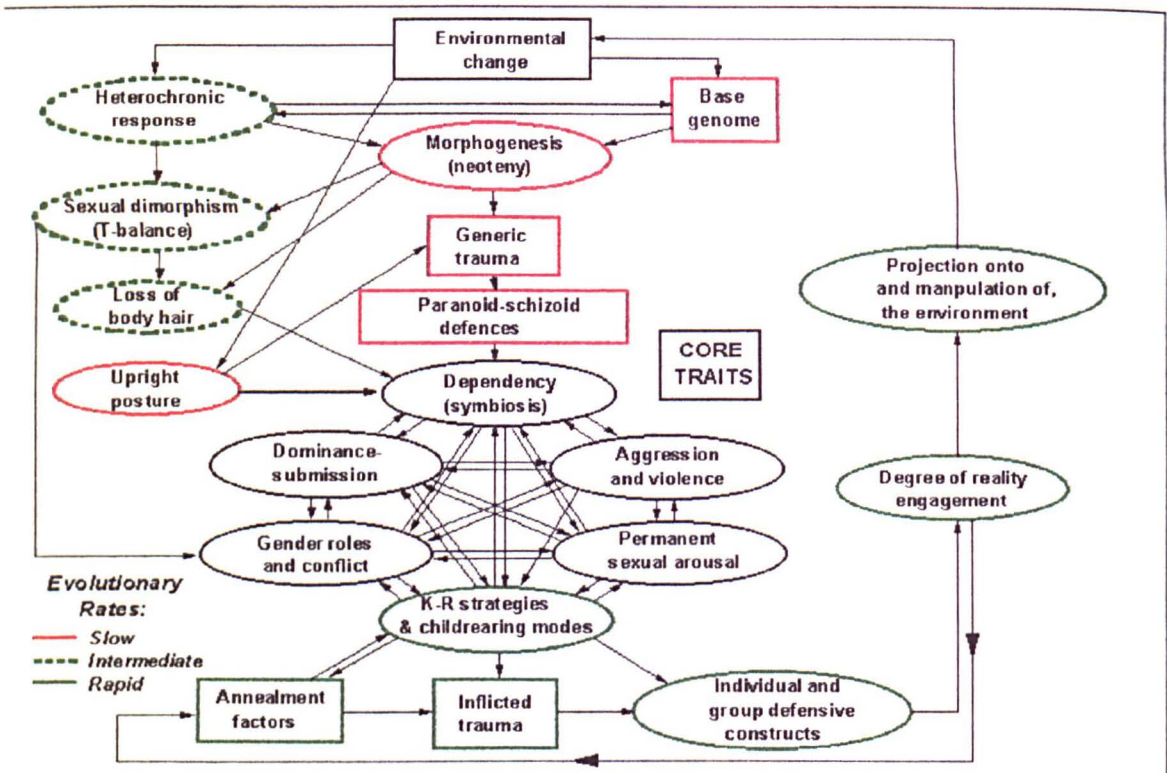
Fig. 6.5: Psychodynamic Dimensions of the Gene-Culture Co-evolutionary Circuit.

The 'leash' of human reproductive biology and morphogenesis acts by creating a interdependent nexus of 'core traits' within which the paranoid-schizoid mechanisms operate and unfold. These core traits are those which, as we have said, once conferred adaptive strength on the EEA but now threaten to become the evolutionary nemesis of the species - neoteny induced dependence, dominance submission relations, aggression and violence, culturally-reinforced gender roles and permanent sexual arousal. Childrearing modes are 'filtered through' these traits, and, though flexible, constrain the level of complexity a society can reach before becoming unstable. The pre- and perinatal matrix forms the ultimate barrier and in all likelihood will continue to do so. In summary, Fig. 6.5 above presents the psychodynamic 'implicate order' operating behind the purely cognitive 'gene-culture co-evolutionary circuit' devised by Lumsden and Wilson (*op.cit.* pp. 237-304, 346-50).

Within the co-evolutionary circuit of Fig. 6.5, is there such a thing as 'originary awareness' (Guenther 1989) embodied in an 'authentic self' (Gruen 1992) or is all conflict between the individual and the collective purely the result of hysteresis between the effects of inheritance, parturition and rearing on one hand, and on the other, the striving of the collective to mould all its members in its own image according to the prevailing fantasy of the moment (Erikson 1975)? Again, the answer lies in the fact that although generic trauma is universally shared, it is also intensely personal and subjective and lies outside the context of history. The emergence and expression of the 'outer' self may be entirely contingent on historical and social context, but the 'inner' self is based on a

substrate of organically-encoded, deeply subjective experience which, though universal and unchanging in relation to the vicissitudes of social history, is highly specific with respect to individual inheritance and the personal history of intrauterine growth. While 'proof' of the existence of the 'authentic self' may be debatable, we all know we possess one.

If we can detect the sequential unfolding of paranoid-schizoid defences in the individual lifespan or 'life-chreod', does a similar, fractally-expanded chreod govern the lifetimes of groups, of entire cultures, or even the human species? Does intrapsychic phylogeny recapitulate intrapsychic ontogeny? If civilisation is truly 'a fractal expansion of the fetal unconscious', some form of recapitulation is likely. Many studies propose various psychological recapitulation schemes (see below), but in order to evaluate them, the role of childrearing as the principal vector driving psychohistorical evolution requires closer examination.

6.9. deMausian psychospeciation.

We have seen how the key vectors of social change are the kinds of relational imprintings formed between mother and child -especially between mother and daughter. The dominant set of imprintings communicated transgenerationally within a group or society form the memetic structures that determine the psychological and behavioural constraints under which that group or society evolves - constraints that bias and limit perception and cognition, and hence intellectual endeavour and creativity. These structures are highly conservative, but under certain conditions they can change, causing shifts in childrearing patterns.

The historical sequence of childrearing modes as proposed by deMause (1982 pp. 136-43) is shown above in Fig. 6.6 below. The *Infanticidal* mode is divided into *Infanticidal I* and *II* corresponding to prehistory and early antiquity (I) and late antiquity (II - the imperial phase). DeMause likens the emergence of a more empathic mode to the spread of a mutation in biology - hence the term 'psychospeciation'. Since it is an increased ability on the part of the adult to empathise with the infant that supposedly promotes psychospeciation, the name of the last mode has been changed from 'helping' to 'empathic'. The dating scheme in Fig. 6.6 is approximate. The right-biased, exponential curve of emergence suggests the elastic, hysteresis effect of 'pulling away' from the base of generic trauma. The 2000-year epoch under consideration is certainly long enough for this and other genetic effects to be discernible, but how are these effects to be studied in detail with respect to past epochs? A similar problem arises with respect to population proportions. These are also approximate, but how are these proportions to be verified with respect to the past? Is there any variance over time in the Infanticidal I-II level or does the supposedly level proportion reflect a very slight increment over time, beginning with the Early Paleolithic?
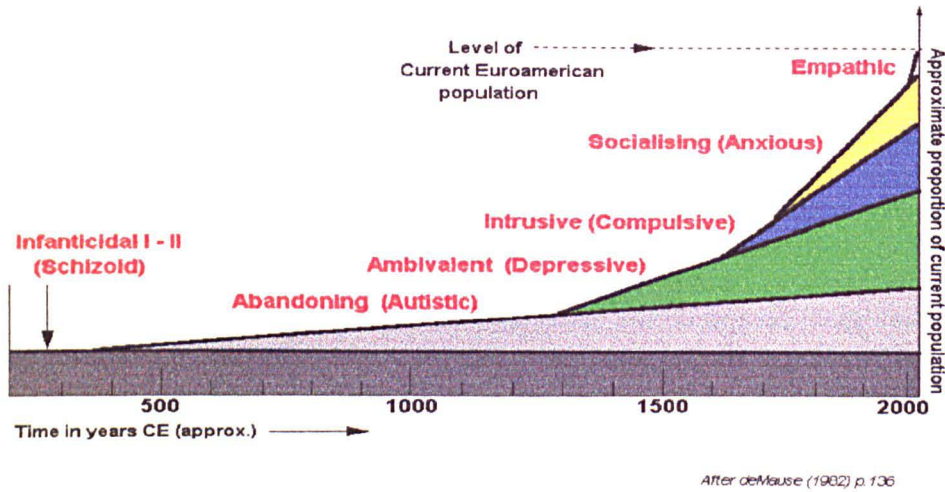
Fig. 6.6: Euroamerican Psychoclass Exfoliation according to deMause (1982)).

In the deMausian scheme, each childrearing mode gives rise to a dominant personality type consistent with that mode and considered 'normal' for that particular psychoclass (labelled in red in Fig. 6.6). Because of hysteresis effects, human psychospeciation operates on a continuum - i.e. not only is there no exact dividing line between successive modes, the modes also merge one into the another, and because of the effects of individual generic histories, the 'modal' personality type represents the mean of a skewed distribution (now from right to left) ranging from what would be considered 'psychotic' or 'borderline' in terms of that mode (in deMausian terms - 'catatonic'), through 'neurotic', to what would be considered 'normal' (Fig. 6.7 below). Practitioners of a more advanced, successor mode would also be considered 'deviant' - but for other reasons.
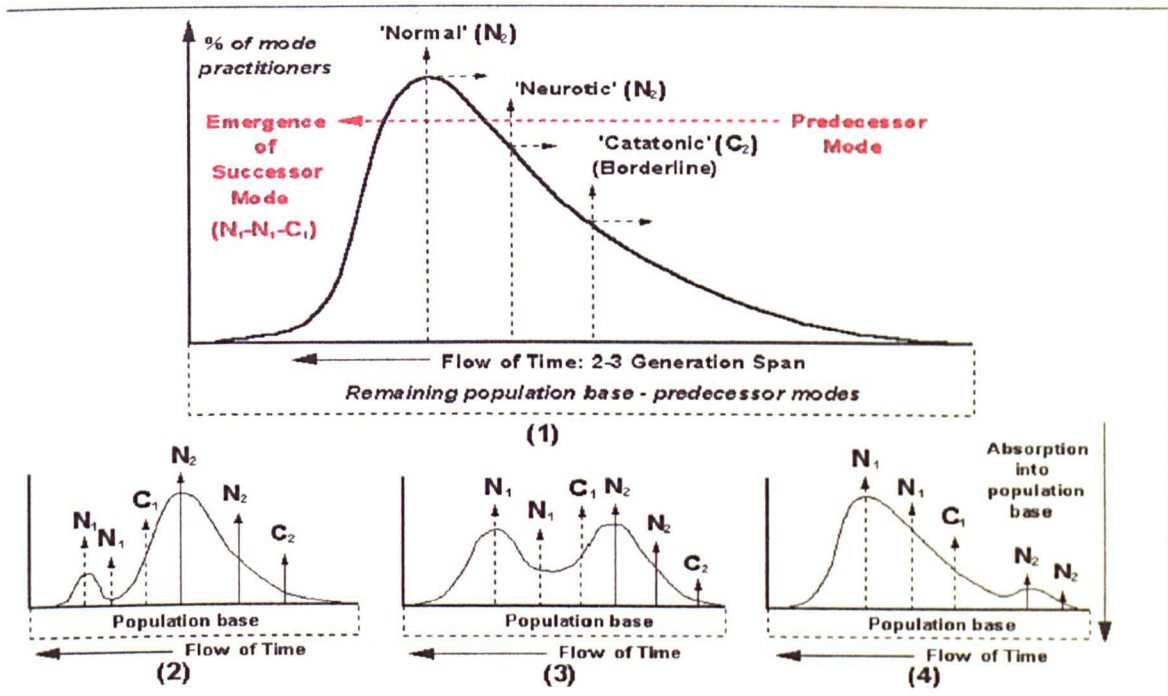
Fig. 6.7: A 'Wave Model' of Mode Emergence.

Fig. 6.7 shows the distribution shifts in population caused by the emergence of a new mode on top of its predecessor. The shift occurs above a fixed population base containing the previous, more archaic modes. Th flow of time is from right to left. As the predecessor mode is overtaken, it sinks back into the fixed population base.

Three main issues arise concerning the deMausian paradigm. Firstly, no adequate statistical analysis has been carried out on the relative prevalence of each mode in regional or world populations, either past or present. The problem of vast, now inaccessible historical data make any evaluation of the past highly speculative, whereas evaluation of the present would require a considerable investment of time spent working transnationally with sufficiently large base and sampling rates. This is not to say that such an undertaking would be impossible. By analogy with all fields dealing with the long-term evolution of their subject matter (e.g. evolutionary biology, astronomy etc.), much can be inferred through an analysis of existing and surviving structures.

The second question is that of applicability. Is this historical sequence global and transcultural or does it reflect a purely Euroamerican sequence, based on contemporary American views of childrearing? Here lies the model's greatest weakness. The main historical manifestations of each mode can clearly be identified in the context of Euroamerican history but manifestations of the *later* modes (ambivalent → socialising) do not appear clearly in other cultures beyond the abandonment level. We may turn the weakness of the model around and ask another question: does this childrearing sequence suggest how Euroamerican scientific-technological culture emerged to dominate the planet - i.e. how did this culture evolve dominant meme-structures based on a future-oriented, materialistic, dynamic and manipulative conception of nature? The answer to

this question may indeed lie in shifting Western conceptions of childhood and childrearing.

The third question is multiple: if childrearing modes evolve in the direction of greater empathy and annealment, where is the 'helping' (empathic) mode to be found at present? Where is the basic personality type corresponding to this mode? DeMause himself admits that there are 'none yet adult'. Many attempts have been made to identify these emergent personality types, so far without success Are we witnessing a peculiarly East Coast expression of the 'basic pairing assumption'? DeMause's definition of the 'helping' mode would appear to suggest this. In an attempt to answer these questions, we need to examine the psychospeciation process more closely.

	G: population				
	g_1/ i_1	g_2/ i_1	g_3/ i_1	g_4/ i_1	g_5/ i_1
	g_1/ i_2	g_2/ i_2	g_3/ i_2	g_4/ i_2	g_5/ i_2
I: individual	g_1/ i_3	g_2/ i_3	g_3/ i_3	g_4/ i_3	g_5/ i_3
	g_1/ i_4	g_2/ i_4	g_3/ i_4	g_4/ i_4	g_5/ i_4
	g_1/ i_5	g_2/ i_5	g_3/ i_5	g_4/ i_5	g_5/ i_5

G-group:

g_1: *Psychoclass Spectrum*
g_2: *Transference-projective Matrix (structure of defensive construct)*
g_3: *Meme Configuration (dynamic of power relations)*
g_4: *Meme Propagation Rate (rate of change of defensive construct)*
g_5: *Migration Flux.*

I-group:

i_1: *Social Support (effect of extended family and local power relations)*
i_2: *Economic Level*
i_3: *Legal Constraints (effect of larger group power relations)*
i_4: *Social Mobility Potential*
i_5: *Emigration Potential.*

Table 6.3: Variables Affecting Psychospeciation

If a caregiver wishes to rear a child more empathically, ten main variables will influence whether this psychogenic mutation will prove 'viable' and spread. These variables are divided into two groups: the G-group, comprising variables relating to the wider society (the population), and the I-group, comprising variables relating directly to that individual's immediate social context. These variables are highly interdependent, and can be arranged in the form of a 5x5 matrix (Table 6.3.above) correlating the localised situation of the individual to the global characteristics of the social matrix in which she/he is embedded.

This matrix incorporates factors to which all-inclusive, purely random variables are normally assigned in the probability density functions and 'culturgen' or meme-flow equations of GCCET models. These factors are not directly quantifiable, nevertheless they reveal a complex interrelation of bias and structure not normally taken into account in these models. If they are sufficiently flexible and historical conditions are favourable, a given psychogenic mutation will prove viable and spread, precipitating some form of social or technological change.

Two kinds of reproductive strategy are discerned in evolutionary biology - the *R-type* strategy, which aims to produce as many offspring as possible in the hope that some may survive, and the *K-type* strategy, which produces fewer offspring which are maximally cared for and educated. including those calling themselves 'advanced'. Empathic, future-oriented childrearing requires a far higher degree of care than in other, less-advanced modes, therefore more advanced childrearing modes increasingly tend to favour K-type reproductive strategies while less advanced, more traumatised psychoclasses will tend to favour the R-type. This is the demographic problem - why the more entrenched, archaic modes involving a greater degree of overall traumatisation generally outnumber the more advanced (and also have a greater drive to power). Although the evolution of human neoteny suggests a greater adaptive value for K-type strategies, increasingly complex, stressed or traumatised cultures tend to regress to R-type strategies. Continual re-traumatisation of a group, whether through childrearing or a sequence of devastating historical events, causes R-type strategies to preponderate in that group, maintaining it in a state of *psychogenic arrest* (Ziolo 2000).

What GCCET studies support the psychospeciation hypothesis? The following study by Baumrind (1967) cited in Boyd & Richerson (*op.cit.* pp.46-7) involved 110 pre-school children evaluated with respect to five behavioural categories: self-control, approach tendencies (curiosity), subjective mood (happiness), self-reliance and peer affiliation (simple friendliness - *not* 'group-orientation').

Three subgroups were selected for further study: Group 1 (13 children), who scored high in each of the five categories and were judged to be 'the most mature, competent and independent', Group 2 (11 children) who were 'moderately self-reliant and self-controlled but scored low on approach tendencies, subjective mood and peer affiliation, and Group 3 (8 children) who 'scored low on self-reliance, self-control, and approach tendencies and who were judged the most immature of the original group'. The childrearing practices of the parents of each group were evaluated through 'naturalistic observations in the home, structured tests and interviews'. Four mode styles or 'dimensions of childrearing' were identified: (1) *control* (efforts to influence children's behaviour), (2) *maturity demands* (parental pressure on children to perform near the limits of their abilities, but also encouraging independence), (3) *communication* (reasoning with children to obtain compliance, seeking information about the child's own needs and desires) and (4) *nurturance* (expressions of warmth and encouragement). Parents of the 'mature' group (Group 1) scored high on all four dimensions. Group 2 parents scored high on control ((1) above) but low on nurturance (4). Group 3 parents (the 'immature' group) scored low on control (1), maturity demands (2) and communication (3), but high as regards nurturance

(4). Baumrind (*op.cit.*) classified the Group 1 parents as *authoritative*, the Group 2 parents as *authoritarian* and the Group 3 parents as *permissive*. Boyd & Richerson stress that subsequent studies by Baumrind and others (e.g. Mussen *et. al.* 1979) confirm 'these and similar categorisations' (*op.cit.* p 47). We see here a childrearing mode that, if based on *enrichment* of the rearing environment and full encouragement of the child's *manifest* abilities and interests, is quite different from both the 'socialising' and 'helping' modes. Empathy and full consideration of the child's emotional needs is combined with an ability to provide a firm, supportive framework for the child's *emergent* personality and abilities, a framework structured not according to pre-conceived parental models, but along the child's own trajectory of growth, enabling her/him to understand the kind of society he/she lives in and develop appropriate strategies for dealing with it.

Why do permissive modes fail to achieve this? It may be that generic trauma can best be compactified and annealed (a) by striving for greater psychological and physical rapport between mother and fetus in preparation for 'birth without violence' and (b) by providing an appropriate framework for the development of culturally-appropriate, mature and stable defences. If we cannot avoid the traumatic legacy of natural birth at present, we *can* seek to minimise it and provide benign structures for its containment. Even if (a) above is present in the deMausian 'helping' mode, (b) is not. The resulting instabilities in the defensive structures of 'helping' mode personalities appear later, not through latent or manifest aggression, but through subtler strategies of avoidance and withdrawal.

Boyd & Richerson's work broadly confirms many aspects of the psychogenic theory as well as other observations on mode-culture interaction made in the present chapter. Citing Werner's transcultural study of childrearing modes (Werner 1979), Boyd & Richerson point out how paternal involvement in rearing creates "a more nurturant family setting" (Boyd & Richerson *op.cit.* p.48), how "*traditional or semitraditional stratified agricultural societies are disproportionately characterised by authoritarian childrearing patterns*", that "*such practices tend to produce children who are co-operative but not independent or self-assertive*", and that "*in contrast, less authoritarian parents are characteristic of unstratified agricultural societies, hunters and gatherers, and the middle class of Western industrial societies*". Other contemporary studies of the history of childhood (Heywood 2003), of child abuse (Corby 2000) and the current status of children in Western society (Haydon 1997) differ in their endorsement of deMause's historical sequence. Corby denies that such a sequence is discernible while Heywood states that he is "*bound to agree with Lloyd deMause that by the early 20th century children in the west were less likely to be killed, abandoned or beaten*" although significantly, he reserves judgement concerning the former prevalence of sexual abuse (*op.cit.* pp.116-17). No study denies the prevalence of general, physical and psychological abuse in the past. The papers making up the Haydon study are not historically-oriented, but are concerned primarily with issues of power and perception affecting children at the present time. Both the Haydon and Corby studies believe child abuse, physical, mental and sexual, to be as prevalent now as ever.

6.10. Other models of psychohistorical evolution

Two other models of psychohistorical evolution merit brief consideration. Space forbids extended discussion, but these models can easily be summarised in table format and integrated with the deMausian psychospeciation sequence. Again both models describe the Euroamerican evolutionary path. Badcock's (1980) model, firmly based on Freud's *Totem and Taboo*, proposes that this path arose through successive resolutions of the oedipal conflict, and that these resolutions gave rise to particular economic modes and types of social structure. In other words, Badcock focuses on the postnatal phase of trauma annealment but makes no reference to actual childrearing practices. Each oedipal resolution is flawed, producing partial repression of material during a particular epoch which resurfaces in the next. The Badcock model is summarised in Fig. 6.8 below.

Religious Foundation	Animism	Totemism	Atenistic Polytheism	Monotheism	Catholicism	Protestantism	Rational - Analytic
Basic Oedipal Resolution	*	+ ♂	- ♀	+ ♀	- ♀	- ♂	
Dominant Economic Mode	Foraging	Hunting	Cultivation	Pastoral	Mixed Agrarian	Capitalist - Industrial	
Repression Cycles	A₁ B₁	B₂ A₁	A₂ B₂	B₃ A₂	A₃ B₃		
Dominant Pathologies	Primary Identification Narcissism	Anxiety, Hysteria, Animal Phobia	Paranoid Psychotic	Obsessional Neurotic	Paranoid + Obsessive Complications	Obsessive + Paranoid Complications	
Childrearing Modes	Infanticidal I		Infanticidal II	Abandoning / Ambivalent	Intrusive / Socialising		(Empathic)
deMausian Psycho-speciation	I₁	I₂		Ab.	Amb.	Int. Soc. Emp.	Emp.

Fig. 6.8: Badcock's (1980) Model of Psychohistorical Evolution Integrated with the deMausian Psychospeciation Sequence.

The second model is that of Slater (1966), altogether a more complex and subtle construct into which we have integrated the models of Badcock and deMause. A summary of Slater's model in tabular form is given in Fig. 6.9 below. Slater's studies of the structural, psychological and religious evolution of small groups were discussed more extensively in ch. 5. In his final model, Slater traces the path of Euroamerican psychohistory in terms of a 'fractal expansion' of small group dynamics, combining material from Freud's eight major papers on civilisation, society and religion with other major studies correlating individual development with group process and the rise of consciousness (Bellah 1964; Bennis 1957, 1961; Bion 1961; Fromm 1941; Neumann 1954; Piaget 1932 and Riesman 1955). The Slater study offers no future expectation of

palingenesis. The evolution of consciousness is seen as a process from fragmentation and excessive dependence towards increasing group autonomy, but the evolution of mythological structures underlying this process clearly remain bound by the inner dynamics of the group within the cyclic matrix of pre- and perinatal time.

Mythic Structures		Uroboric → Creation →		Great Mother and Infant →	Great Mother and Adolescent →	Separation of World Parents →	Dragon Fight →	Captive and Treasure
Psychological Level	Neumann's Mythological Stages	Absence of consciousness and Differentiation	Beginning of consciousness: Unconscious defined	Germinal Ego: unconscious dark and overwhelming	Unsuccessful Beginning of Ego Struggle: Narcissism	Beginning of active mastery: Guilt and loss, sexual awareness	Liberation from unconscious and defences against it	Acquisition of own libido: Knowledge and control
Social Psychological Level	Piaget	Motor or individual stage		Morality of constraint: rules sacred			Morality of co-operation: rules modifiable	
	Fromm	Primary ties		Destructiveness	Authoritarianism		Automaton conformity	
	Principal Social Fear	Waking		Loss of consciousness	Tyranny Abandonment		Death Isolation	Overindividuation, segmentation, meaninglessness
Group Level	Bennis	Oral - inclusion			Anal - responsibility		Phallic - intimacy	
	Bion	[Uterine regression]		Fight-flight	Dependency		Pairing	
	Nature of Group Bonds	Unconscious		Shared fantasy	Identification with the leader	Revolt and common action: the bond of guilt	Common experience and intimacy	Conscious
Societal Level	Badcock	Animism	Totemism	Atenistic Polytheism	Monotheism	Catholicism	Protestantism	Rational - Analytic
	Riesman	Tradition-directed			Inner-directed		Other-directed	
	Power Structure	Matriarchal: pecking order	Group pecking order		Patriarchal		Democratic control	
	Religious Response	Positive magic: taboo	Apotropaism Personification	Placation Praise Supplication Morality	Dualism	Enlightenment Messianism Mysticism	Secularism	
	Bellah	Primitive religion	Archaic religion		Historic religion	Early modern religion	Modern religion	
	deMausian Psychospeciation	I₁	I₂			Ab.	Amb. Inf. Soc.	Emp.

After Slater (1966)

Fig. 6.9: The Slater Synthesis - including the basic schemata of Badcock and deMause.

6.11. Evolutionary Constraints on Social Stability and Complexity.

Evolutionary prescriptives, the ever-active residue of generic trauma and the developmental trajectory of the human lifespan combine to delimit the kinds of society humans can realistically envision or create. Within these boundaries, the dominant defensive construct of a society acts as a further *constraint catastrophe* (ch. 7) limiting the level of complexity and stability a society can achieve in terms of that construct. During a society's late phase, four global evolutionary factors contribute to instability and collapse:

1) *Psychoclass swamping*: a high migration flux of less advanced psychoclasses from the periphery towards the core destabilises the psychoclass network of psychogenically more advanced zones, leading to shifts from K → R-type reproductive strategies and eventual psychogenic stasis or regression.

2) *Increasing effects of the Complexity/Error Catastrophe Theorems of Kauffman*: the Complexity Catastrophe Theorem, developed from the NK class of models featuring directed adaptive walks on rugged fitness landscapes, states that *"given a number N of*

organisms with K epistatic connections, as the complexity of the system increases (K→K^{max}), the peaks of accessible fitness fall towards the mean (Kauffman, 1993 pp.96-100). Epistatic connections describe the interdependencies characteristic of co-evolutionary processes, so that in terms of *psychosocial process*, these connections represent the projective-introjective mappings that bind individuals and groups within collusionally-defensive constructs. When increasing complexity within a given system exceeds the critical point determined by the constraint catastrophe governing that system, relational constructs will stabilise at one or more *Nash equilibria (op. cit.* pp.239-41, 245-6, 402) representing states of compromise that are stable, but suboptimal from the perspective of adaptation. Further system complexity will induce deeper degrees of catastrophic systems collapse (Renfrew 1979). The fall of accessible fitness peaks towards the mean (defined by the prevalent Nash equilibria) tells us that the more we strive for excellence, the more we will achieve mediocrity.

The corollary of this - the Error Catastrophe Theorem - states that "*for a fixed mutation rate the number of mutants per individual increases as the complexity of entities under selection increases* (i.e .in a desperate search for fitter behavioural variants - the analogue of Tainter's (1988) 'scanning behaviour'). *As this occurs, a threshold is passed beyond which selection cannot hold a population at the locally fittest variant, errors accumulate* (through failures in cultural transmission) *and the population falls from rare optima towards less fit but more typical members of the ensemble* (the effects of mass culture)".

3) *The constraints of the 'Leash Principle'* (Lumsden & Wilson, 1988): the neural analogue of the Error/Catastrophe Theorem, which states that "*the benefits accruing from a neural subsystem able to identify and classify the adaptive features of culturgens* (units of memetically-induced behaviour - my note) *will eventually be offset as its precision increases by the costs of the ontogenetic pathways required to create the system and by the metabolic costs of maintaining it in a functional state*" - the constraining effects on perception created by the dominant defensive constructs of a society.

4) *The effects of diminishing marginal returns* (Tainter 1988 pp.196-216): the final consequence of both the Error/Catastrophe Theorem and the 'Leash Principle'. These are most apparent in resource management, environmental protection, education and childrearing, social welfare, social stability, transition and dynamics of inclusion/exclusion.

Chapter 7. Models in Complexity Science

7.1. Introduction.

Complexity Science (CS) is an abstracted, consilient knowledge base with applications in many fields. The many sub-domains of CS include fractals, bifurcation, attractor dynamics, equilibria and stability, self-organisation, order parameter emergence and *catastrophe theory* (CT). The relevance of CS to psychology and the social sciences in general has been affirmed by many scholars and researchers since the early 1990's. As Kenyon B. De Greene writes: "*An order parameter is a collective phenomenon. It is emergent beyond the obvious other structures of organisations and societies. In my writings, the order parameter is macropsychological, and it shows such characteristics as collective mind, collective intelligence, collective perception, collective belief structures and collective anxiety. Moods of the time and overall social climates are expressions of macropsychological order parameters.*" (De Greene 2000 p. 280). If order parameters express and determine the shape and evolution of attractors, then moods, desires, emotional or behaviour patterns and modes of cognition or communication all represent species of attractor (Bütz 1997 pp.92-4; Schore 1994 pp.469-72). Guastello has shown that the large scale dynamics of social systems, including social transition, revolution war and major economic cycles can all be analysed fruitfully in terms of the genesis, evolution, transformation and breakdown of attractors, and of the shifts between them (Guastello 1995 p. 368). Attractor theory began with E.N. Lorentz's paper entitled *Deterministic, Non-periodic Flow* (Lorentz 1963). If large-scale attractors exhibit non-periodicity (positive Lyapunov dimension) yet are deterministic, then they are bounded. Large-scale attractors representing social systems are bounded by structurally-stable systems of subsidiary attractors operating within them. *Catastrophes* are manifolds or kinds of topological map, whose properties represent *structurally stable patterns of shifts between two or more attractors* Ideas and methods drawn from CT therefore offer powerful heuristic tools for getting an initial handle on the many complexities that arise in the behavioural sciences.

In his ground breaking work on CT entitled *Structural Stability and Morphogenesis* (Thom 1989), Thom stated that "*in the situation where man is deprived of all possibilities of intellectualisation, that is, of interpreting geometrically a given process, either he will seek to create, despite anything, through suitable interpretations, an intuitive justification of the process, or he will sink into resigned incomprehension which habit will change to indifference*" (p.5). In other words, *visualisation* precedes *verbalisation*, and in preceding chapters, we showed how visualisation is in turn preceded by the somatosensory encoding of dynamic experience ('imprinting') at molecular, cellular and somatic levels. Both Thom (*op.cit.*) and the Polish philosopher Krzysztof Pomian (1989) also point out how the elementary catastrophes arise through interactive correspondences between dynamic structures in the environment and the perceptual apparatus of the brain, linking both percept and perceptor into a single fabric sharing the deep-level properties of these catastrophes. We defined catastrophes as structurally stable patterns of shifts between two or more attractors and since individual and group defensive constructs a) normally contain two or more attractors (as affective states) relating the subject to perceived

environmental impingement and b) display a deep level of structural stability, they become highly amenable to analysis using catastrophe-theoretic techniques.

Such analyses are initially descriptive rather than predictive. But the deep-level structure and dynamics of individual and group defensive constructs remain little understood as yet beyond the domain of psychoanalysis, and are normally expressed in exogenous models as unknowns - i.e. as purely random variables. We have seen however, that such constructs are anything but random. We suggest that CT and CS-based models offer a middle ground combining neurobiology and psychoanalysis that may lead to greater quantitative representation of these constructs (see 7.3. below) and that the inclusion of such representations in exogenous models will both improve their ecological validity and enhance their predictive capacity. This may become psychohistory's main contribution to world systems analysis.

7.2. The Riemannian-Hugoniot or 'cusp' catastrophe.
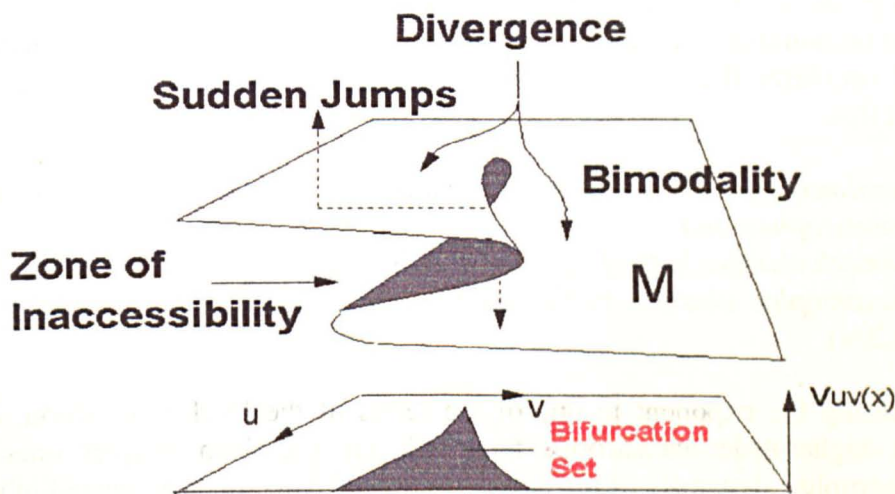
Fig. 7.1: General Properties of the Riemannian-Hugoniot or Cusp Catastrophe

The *Riemannian-Hugoniot* or *cusp* catastrophe, identified by its *Weyl number $A_{\pm 3}$*, is one of the most 'elementary' catastrophes in that it exhibits prototypical properties such as divergence, bimodality, sudden jumps, hysteresis and 'zones of inaccessibility' - all characteristic of a variety of bimodal behaviours. Its canonical form and associated properties are shown in Fig. 7.1 above.

The properties of the cusp are expressed in many metaphors of daily speech relating to thought, cognition or emotion. There can be *divergence* of opinion or controversy, we can *go our separate ways* or simply *split* (divergence). Personalities can be *split*, we can experience *mood swings* or *conflicting emotions*, be *of two minds*, be faced with

Hobson's choice - whether it be *between the devil and the deep blue sea,* or *between hammer and anvil* (bimodality). We can *jump to conclusions,* thoughts may *spring to mind,* there can be *landslide elections, sudden shifts* in opinion or the blinding light of sudden conversion in the manner of St. Paul (sudden jumps). Opinion may *gravitate* in a certain direction, memories may *flow to mind* or *flood* us, we may *slowly come round* to a different way of thinking, then act *decisively,* there can be *anticipated* or *delayed* emotional responses, politicians can *sway* public opinion prior to landslide elections (slow dynamic prior to sudden change - a hysteresis effect linked to Maxwell's perfect delay convention). Our minds can also *go blank,* there may be *grey areas,* we may find ourselves in a *blind spot* or have a *blank spot* regarding certain issues (zones of inaccessibility). This small sample of metaphors points to the centrality of the corank 1 *cuspoids* in our emotional and cognitive experience and indeed, the standard cusp occupies a key position within the 'enfielding' network of CT-manifolds.

7.3. CT-based models as analytic bridge between neurobiology and psychoanalysis.

The neurodynamics of the brain can be related directly to observed behavioural patterns through the medium of CT-based models. Both Zeeman (1977 pp.293-300) and Haken (1996 pp.36, 55, 91, 171, 251-2 and 309) studied *global brain dynamics* utilising models based on nonlinear, forced, damped oscillators. By transforming the fundamental equations of oscillator theory to universal unfoldings of the standard cusp, Zeeman demonstrated that:

> *1) Nonlinear oscillators typically bifurcate according to the elementary catastrophes, and*
>
> *2) Smooth changes in the frequency of a forcing term can cause both smooth and catastrophic changes in the amplitude and phase of the oscillator (op.cit. p.294).*

By increasing the exponent in one of the terms of the Duffing equation, Zeeman showed how higher-order catastrophe manifolds emerge from simpler ones in the increasingly complex dynamics of the brain. The global dynamic is expressed in terms of the *double cusp* or X_9 - the most complex of the elementary catastrophes, one which enfields all the others and is also the core manifold of the Thom-Pomian historical chreod (see below).

Zeeman constructed a model to show how the CT-modelling domain can act as an intermediary between the micro-level of neurobiology and the macro-level of observed behaviour (*op.cit.* pp. 287-92) In Fig. 7.2 below, M is a high-dimensional manifold modelling the state of all or part of some repressed but subconsciously active dynamic core impacted by transmarginal stress, an emotionally/cognitively conditioned neural group (mental representation) or a stage in the evolution of the ventral tegmental dopaminergic limbic circuit as described by Schore (1994). According to the Zeeman interpretation, Y in Fig. 7.2 will describe the bifurcation of some dynamic on M parametrised by C - i.e for every $c \in C$ there will be a flow on $M(F_c)$ and $Y = \cup Y_c$ where Y_c will be the finite set of points where a disk D is pierced by the compactified

(stabilised) set of F_c (in other words, where a structurally stable set of flow functions measuring the 'evoked potentials' of neural pathways crosses some designated neighbourhood D of the brain transversally - i.e where the intersection points are of minimal dimension). η is then a catastrophe germ or singularity and $\eta: Y \to C$ is induced by the projection $M \times C \to C$ (a deformed variant of a 'canonical' catastrophe manifold such as that in Fig. 7.1). η is then reducible to a canonical catastrophe model $\zeta: Z \to C$ where $Z \subseteq R \times C$ maps Y diffeomorphically onto X. EEG, PET, MEG or sequences of fMRI data are subjected to time-series analyses in order to access the structure of the underlying dynamic flow (Kantz & Schrieber1997).
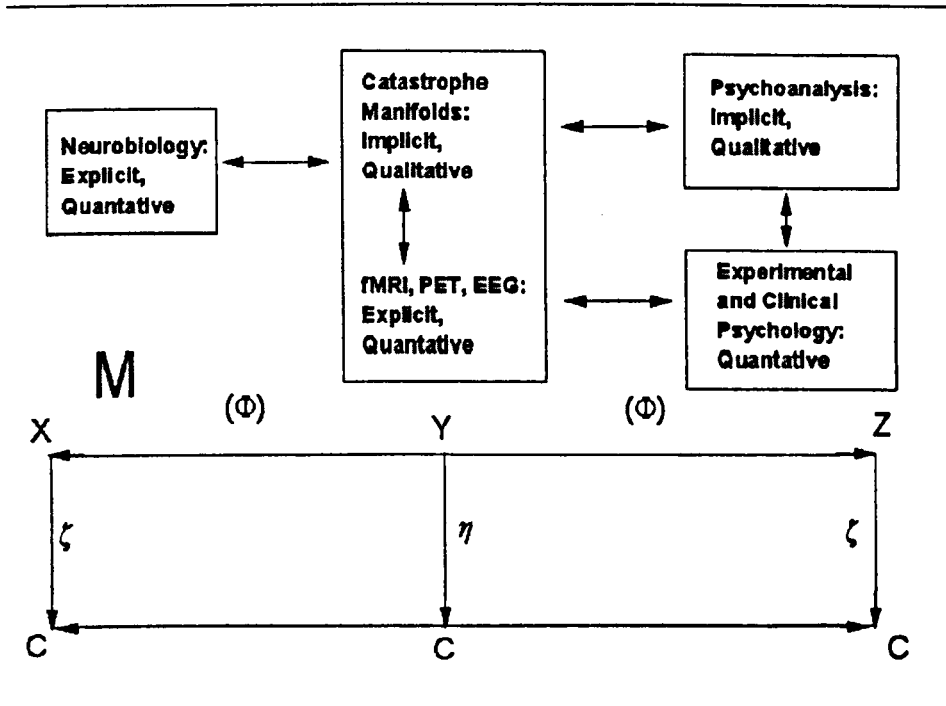
Fig. 7.2: CT-manifolds as intermediate domain between neurobiology and the analysis of manifest behaviours.

While we focus in this study on catastrophe manifolds as patterns of attractor shifts, and thus consider the simple diffeomorphic mapping of points from one manifold to another, i.e $\phi: X \to C$, for the detection of strange (complex) attractors underlying dynamic processes at the historical level, more extended time series analyses are required and an appeal is made to Taken's Embedding Theorem (Takens 1981) where, given a sequence of observations $\{a_i\}$, we define the embedding or m-history as:

$$a^m{}_t = (a_t, a_{t+1}, ..., a_{t+m-1})$$
(Eq. 7.1)

Each m-history will be a set of consecutive observations, e.g. in a sequence of two-histories, the first three points will be (a_1, a_2), (a_2, a_3), (a_3, a_4), with a total of $T - m + 1$ (or $T - 1$ in the two-history case). The Embedding Theorem states that the mapping from the m-histories of a sequence a_t to the state vectors X_t given by:

$$a^{m}{}_{t} = \{h(X_t), \, h(F(X_t)), \, h(F^2(X_t), \, \ldots, \, h(F^{m-1}(X_t)\} \equiv J(X_t) \qquad \text{(Eq. 7:2)}$$

is a diffeomorphism, provided that the embedding dimension *m* is sufficiently greater than the dimension of the process, *F* (Kiel & Elliott 2000 pp.72-74). This theorem has been called 'the most important in all of nonlinear science' (*ibid.*). What it means is that under certain conditions, the 'hidden' properties within an attractor can be inferred from an *embedding* of observed data - i.e. events at the level of observation are related to deeper 'inaccessible' events through diffeomorphism. Applying Eq. 7.2 to the psychohistorical matrix, we consider the 'inner network of sado-masochistic relations between psychoclasses' (ch.5.7) as a diffeomorphic expansion of the *n*-dimensional conflict manifold derived from the pre- and perinatal matrix.
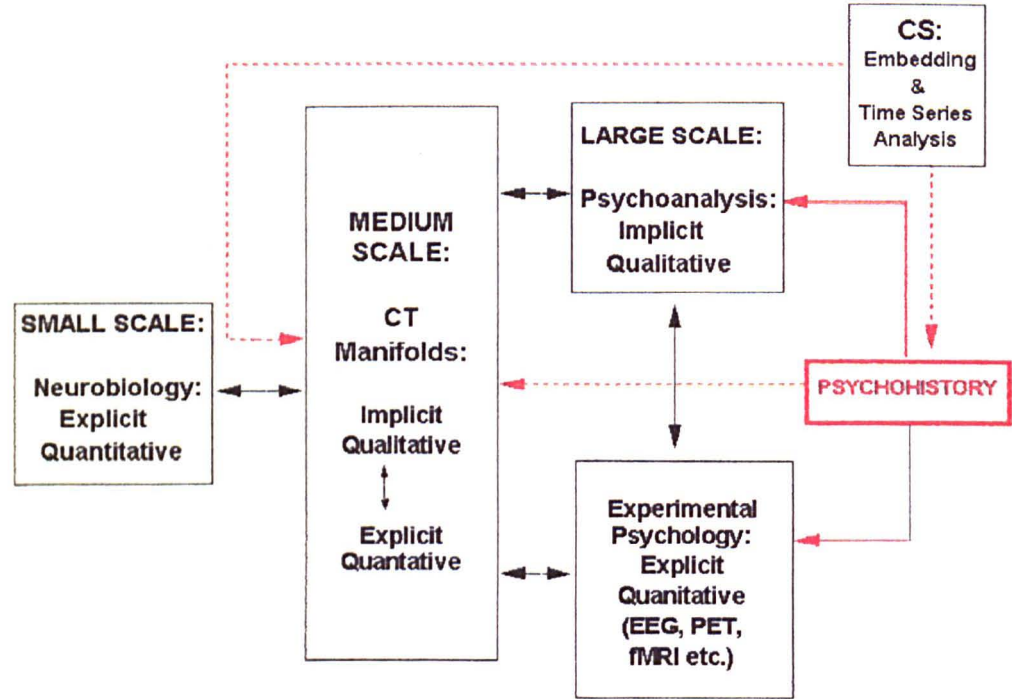
Fig. 7.3: Integration of Complexity Science with Experimental Psychology, Neurobiology and Psychohistory.

In the field of psychohistory, the judicious application of CS and CT-based models with an appropriate range of synthesis and criteria of testability can assist the field to develop a new and powerful class of axioms based on "*new, scientifically cogent and interdisciplinary theories of the mind and of group relations*" (Pietikainen & Ihanus 2003), and thus to survive and mature. Fig. 7.3 above shows how these models can become a consilient base between qualitative and quantitative methods in psychological research, linking both micro- and macrodomains.

7.4. Enfielding.

Universal unfoldings of the cuspoid group of corank 1 are usually expressed as n^{th}-order polynomials. One generalised form of the cuspoid unfoldings is as follows:

$$V_{(u_1, u_2 ... u_{n-1})}(x) = \frac{x^n}{n} + \left(\frac{u_1}{n-2}\right)x^{n-2} + \left(\frac{u_2}{n-3}\right)x^{n-3} ... u_{n-2}(x) \qquad \text{(Eq. 7.3)},$$

where x^n is called the singularity or *germ* of the unfolding. The variable x is the single 'internal' variable describing the 'state' of the system, so the cusp is said to be 'of corank 1', as are all other cuspoids comprising the Weyl group A_k (where $k = n-1$). Catastrophes with two internal variables, the so-called 'umbilics' with germs of the general form $x^n \pm y^n$, are 'of corank 2'. The internal variable x is normally expressed as a *potential* or energy function V representing the internal state of a system while $u_1, u_2 ... u_n$ are the *bases* or dimensions of the 'external' or 'control' variables whose assigned values at any point determine the instantaneous energy level of the potential $V(u_1, u_2 ... u_n)(x)$. The number of external variables in the unfolding is the *codimension* - the difference between the dimension of the manifold itself and the space within which it is embedded. The cusp is of codimension 2. The simplest manifold, the *zero-unfolding*, has the singularity x^3 and each higher order manifold increases the exponent by 1. The Weyl number sequence of the *elementary* catastrophes runs from the cuspoids $(A_2 \rightarrow A_8)$ through the umbilics $(D\pm_4 \rightarrow D_5)$ to the double cusp (X_9). Canonical response surfaces for each manifold are obtained by differentiating the unfolding twice and solving for the internal variables. The umbilics have more complex unfoldings specific to each manifold and will not be discussed here. Techniques for deriving the response surfaces and bifurcation sets of each manifold are found in many introductory tutorials (e.g. Poston & Stewart 1978; Saunders 1980; Woodcock & Monte Davis 1978; Zeeman 1977 and Ziolo 1999).

Brown states that CT-based models "*need not rely on polynomial algebra*" (1995 p.65) and that in psychological and social science modelling "*catastrophe theory should be developed from theories of society (or psychology) not from theories of mathematics.*" While this is true for the initial, descriptive phases of analysis, accurate quantification of phenomena using such CT-based analytical packages as GEMCAT (Oliva *et al.* 1987; Lange *et al.* 2000) require a more rigorous understanding of the mathematical substrate. Moreover, this substrate reveals certain properties that are of particular relevance to the study of morphogenesis and the emergent property of consciousness.

Firstly, all unfoldings whose germs are *odd* exponents are metastable - i.e. unfoldings with germs $V = x^{(2n+1)}$ express manifolds with $n-1$ transition stages or steps (Wildgen 1982 p.84). Thus in the case of A_4 whose germ is x^5, i.e. $V = x^5 = x^{((2*2)+1)}$ there is one step or degree. This means that catastrophes are recursive at the level of unfoldings of corank 1 and that manifolds with even exponents $V = x^{(2n+2)}$ *compactify* or stabilise the transition states of previous manifolds $V = x^{(2n+1)}$. Secondly, catastrophe manifolds are *enfielded* within one another, with higher-order manifolds (beginning with X_9) enfielding lower-order ones. The following scheme (Fig. 7.4) is referred to by Wildgen (1982) as an 'abutment hierarchy' (*op.cit.* pp. 91-2) and by Poston and Stewart

(1978 pp.176-79) as a 'subordination diagram' where lower-dimensional vector spaces are 'flagged' by higher-dimensional ones i.e. $R^n \supseteq R^{n-1} \supseteq R^{n-2} \dots$:
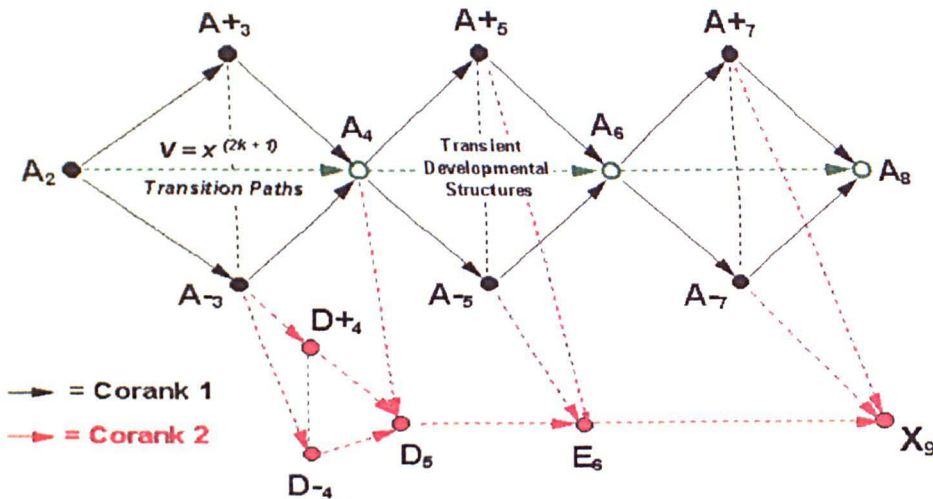

Fig. 7.4: The Enfielding of Elementary Catastrophes in Biological Morphogenesis
The green line through the middle of the diagram shows transition paths for metastable
manifolds with singularities $V = x^{(2n+1)}$.

In dynamical systems, higher-order patterns emerge through the interaction of lower-order ones - a principle known as *sensitivity to initial conditions*. This is especially true of biological systems, whose vectors are the emergent trajectories of morphogenesis (Zeeman 1977 pp.141-233; Thom 1989). In organic growth, the behavioural potential $V(u_1, u_2 \dots u_n)(x^n)$ of one or more lower-order catastrophes can contribute to the control parameter group of a higher-order catastrophe $V(u_1, u_2 \dots u_n)(x^{n+1}) \dots \rightarrow (D_n) \rightarrow (E_n)$ etc., or even become a control parameter for a catastrophe of equal order, creating a *cascade*. The metastable catastrophes with singularity germs of class $V = x^{(2n+1)}$ trace a path through the middle of Fig. 7.4 (green line), forming a substrate for the *transient developmental structures* described by Schore (1994 pp.126-7, 258, 272), critical points of morphogenetic transition involving episodes of transmarginal stress and key phases of later psychological growth such as turbulence, insight, transformation and stabilisation (Van Eenwyk 1997).

In both morphogenesis and the evolving structures of consciousness the enfielding scheme of Fig. 7.4. is not a single, global event, but occurs multiply. Enfieldings enfield enfieldings, and many variants co-exist within larger or smaller neural networks, linked with each other in more complex hierarchies relating to higher cognitive functions and more elaborate psychodynamic mechanisms. The enfielding diagram therefore implies *self-similarity across scale* (Van Eenwyk 1997 pp.117-21) with smaller enfieldings becoming fractally expanded into greater ones. The nodal points of Fig. 7.4 are critical

junctures where global order parameters may be initiated at some macrolevel so that the enfielding network may serve as a guide to the general structures and types of linkage governing macropsychological phenomena such as group fantasies and their concatenation into cascade-like waves catalysing historical process. Complex forms of cultural expression such as music or highly structured verse also contain enfielding schemes at each of their structural levels (ch. 8).

7.5. Psychodynamic evolution in terms of the morphogenetic chreod.

Much has been written about the supposed 'dark mysticism' of CT (Arnol'd 1986 pp. 89-93), a mysticism which tended to discredit the theory in the eyes of 'hard-headed' researchers. But if catastrophe structures reflect critical patterns in morphogenesis as well as structurally stable encodings of core experience - including transmarginal stress (the metastable group) - we may begin to appreciate the psychodynamic origins of this supposed 'mysticism'.
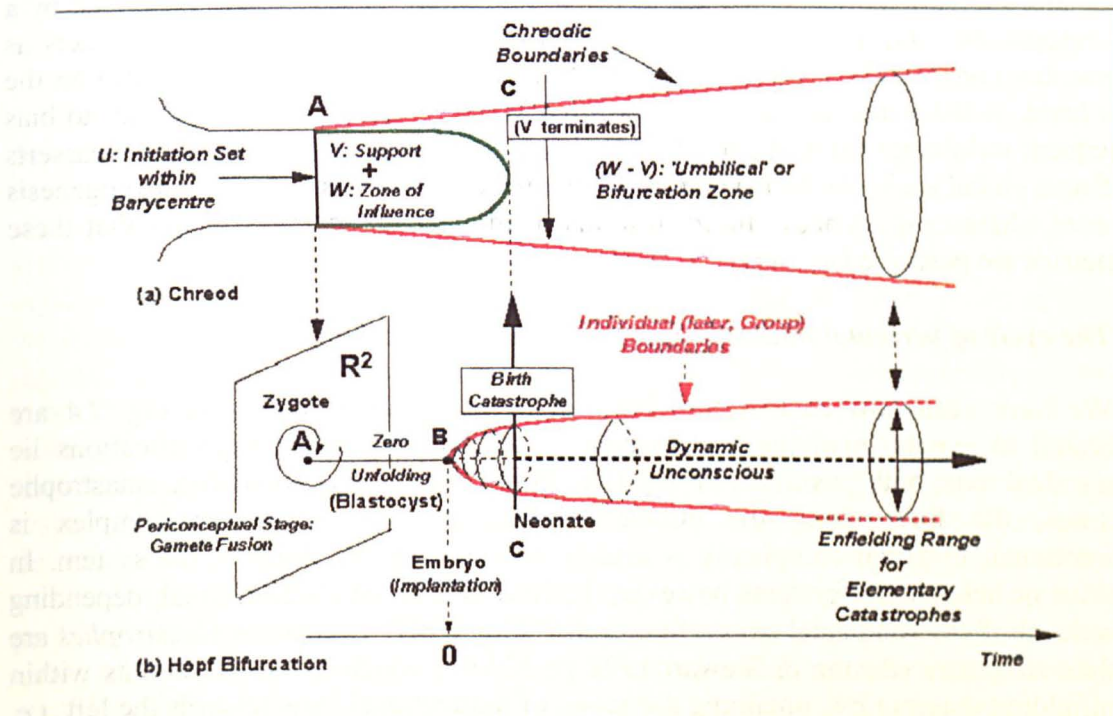
Fig. 7.5 (a) and (b): Morphogenetic Chreods and the Hopf Bifurcation.

Fig. 7.5 above combines Thom's illustration of a morphogenetic *chreod* with Zeeman's model of the *Hopf bifurcation* (evolved in the context of the oscillator-based studies of global brain dynamics cited above). According to Thom, a chreod (Fig. 7.5.(a)) is a type of morphogenetic field that emphasises the time dimension (Thom 1989 pp.114-15 *et passim*). It consists of an autonomous set of smooth (i.e. differentiable to all orders) interdependent unfoldings which evolve from a *barycentre* - a set containing all germinal singularities (e.g. the human genome) as well as an *initiation set* - the genotype of the zygote at conception. A chreod has a *support zone* V (the intrauterine environment) and a *zone of influence* W (the post-natal environment), within which the general unfoldings

occur (individual development). These will contain multiple enfieldings of the type discussed above, and these enfieldings will undergo deformation or bias in accordance with the legacies of generic and inflicted trauma. In Thom's terminology, a chreod K will therefore contain a finite number of sub-chreods J^r, (containing subsidiary enfielding sets) each of whose support zones are contained in the support zone of K.

In the Zeeman model, the point attractor at the source of the bifurcation (point A in Fig. 7.5 (a) and (b)) is a topological analogue for the state of intrauterine stasis - expressed semantically as the *zero-unfolding* (A_1), the most 'primitive' of the corank 1 catastrophes (Wildgen 1982 pp. 35-7). After birth (point C in Fig. 7.5 (a) and (b)) residual trauma leads to repression of the original memory - the former attractor now becomes a repellor and post-natal experience now unfolds as an expanding paraboloid orbiting the repressed core, which has now become a 'zone of inaccessibility' - the dynamic unconscious. The Hopf bifurcation is the analogue of chreodic expansion, both in terms of an individual life and that of a group. Since perinatal transition is a universally shared experience, the radius of the limit cycle in Fig. 7.5 (b) is defined by a fold catastrophe (A_2) at the perinatal origin, point 0 (*ibid.* pp.37-42). The fold acts as experiential constraint and defines the boundary of the group. The standard cusp on the other hand, is the primal archetype of 'splitting' (*ibid.* pp.42-55) which continues to bias subsequent unfoldings up to the level of X_9 (the double cusp), where bipolarity reasserts itself on a global scale. As both Thom and Pomian point out, it is because morphogenesis and core, shared experiences unfold in terms of the elementary catastrophes that these geometries are perceived as 'mystical'.

7.6. The cycle of perinatal time.

We have seen how catastrophes lying along the metastable axis in Fig. 7.4 are implicated in events involving transmarginal stress, while their compactifications lie along a dual axis, both positive and negative. In physical systems involving catastrophe structures, the flow along the enfielding diagram from simple to complex is unidirectional; maximal complexity is usually followed by the death of the system. In cognitive or behavioural systems however, the flow is fluid and bidirectional, depending on the level of environmental stress (Streufert 1997 p. 2085). *Constraint catastrophes* are fold-like structures (Poston & Stewart 1978 pp.389-93) which act as constraints within the enfielding diagram by containing the scope of bidirectional flow towards the left, i.e. by limiting the possibilities of movement towards greater complexity. Streufert and Satish identify five main levels of behavioural complexity, each successive level being less predictable than the one preceding it (Streufert & Satish 1997 pp. 2103-16). The main features of each level are:

1) *Unidimensional* or *Global:* strictly bipolar -'Good' or 'Bad', based on $A_{\pm 3}$ archetypes.

2) *Multidimensional:* differentiated between two or more dimensions with moderate toleration of ambivalence - global movement through the transitional catastrophe A_4 and emergence of the $A_{\pm 5}$ 'middle manifold' or butterfly factor.

3) *Multidimensional, integrated:* integration of multiple dimensions with high toleration of ambivalence - stabilisation of $A\pm_3$ and transition to higher catastrophes.

4) *Multidimensional, highly integrated:* ability to shift between different dimensional combinations at need - stabilisation of the higher catastrophes.

5) *Metacomplex:* Ability to shift between and combine all previous levels of complexity in swift response to the demands of the environment - i.e flexible movement within the global enfielding system and fluid transition between all subordinate enfieldings.

Constraint catastrophes governing individual behaviour are formed through the compactification of A_2 (marking the onset of perinatal trauma) within $A\pm_3$ (marking the closure of the pre- and perinatal matrix). The containing power of these constraints on the bidirectional flow within the enfielding diagram depends on the degree to which generic trauma (the $A\pm_3$ compactification of the fold) is annealed or reinforced in early childhood. Maximum capacity for behavioural complexity is normally attained by adulthood (maturity). After this, morphogenetic unfolding ceases, the biological system reaches stasis and begins to degenerate (the aging process). Psychological decomplexification is a *normal* but not *necessary* concomitant of this process. For a brain physically sustained by adequate health and stimulated through diverse and continual engagement with life there is no *theoretical* limit on further complexification. Limits are set by what can be attained within the genetically-programmed lifespan, and by social and evolutionary factors arising from the still-neotenous and traumatised state of *H. sapiens* which conspire to promote decomplexification after maturity. Average lifespans were much shorter on the EEA, and given the continued preponderance of EEA-derived psychology in human affairs, the aging process is often viewed in terms of what is considered appropriate to each socially and culturally-conceived stage of human development (Erikson 1950a). Societies differ in this respect. Wilkinson (1996) has shown that in less socially-cohesive societies - ones that are more differentiated with respect to income and status and which are more competitive and power-oriented - decomplexification and death are accelerated, especially with regard to those outside or on the fringe of, that society's dominant defensive construct[1]. Society kills (*ibid.* Part IV pp.175-207). The aging process is often perceived as a 'second childhood', an imminent return to the womb, especially in societies dominated by the basic pairing assumption that worship young adulthood - the peak of reproductive power (and hunter/warrior ability) on the EEA.

Fig. 7.6 below shows how the cycle of perinatal time is embedded within the unidirectional flow of lived time, creating two simultaneous vectors of experience, the conscious and the unconscious. Many smaller dramas of perinatal re-enactment unfold during the lifespan, precipitated by stressful events, further trauma or defensive fantasies. These cycles are often shared within the group context, permeating the life of institutions and nations (deMause 2002; Wasdell 1990, 1992, 2002, 2003) and expanding to constrain and structure social and political movements (Cohn 1957; Ziolo 2001a), larger scale

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[1] Wilkinson also stresses the role of *childrearing* in the approximate determination of lifespans (*ibid.* pp. 197-207).

historical processes (Petitot 1978), the lifetimes of cultures and civilisations (Spengler 1926, 1928) and even human perceptions of the evolutionary history of the species (Brown 1959). Escape from this cycle has always been the dream of apocalyptic movements and transcendental religions, but all utopias are neoteny-derived, defined in terms of decomplexification, return to intrauterine stasis or even disengagement prior to uterine implantation. Any realistic exit from this cycle and entrance into what David Wasdell has called the 'vectored domain of emergent process' can be achieved only through the annealment of generic and inflicted trauma. This is the path of species maturation, which can be accomplished only in one or both of the following ways: 1) through a process of ego decomposition and reintegration involving personal insight and life experience (with or without therapeutic analysis) and 2) through artificial modification of the genome and reproductive methods.
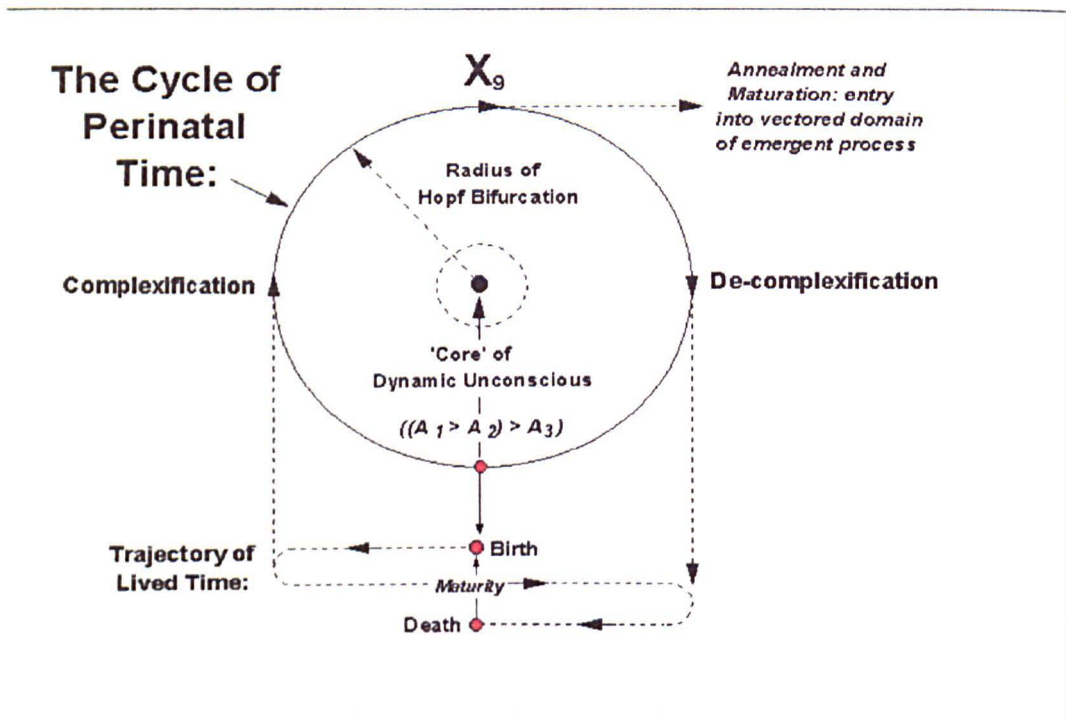
Fig. 7.6: The Cycle of Perinatal Time.
(> denotes catastrophe compactification)

Five classes of CS-application will now be discussed briefly: 1) an *NGST* model proposing one kind of mechanism for the dynamic unconscious, 2) Wildgen's (1982) models for *CT-semantics*, 3) a model for *order parameter emergence* in social trance induction, 4) the *Thom-Pomian historical chreod* and 5) the civilisational *affiliation process* as attractor transition.

7.7. An NGST model of affective bias.

In the previous chapter we briefly described the principles of neural group selection theory (NGST) as they apply to the growth and development of the individual brain. We now present a brief outline of the topology of the brain in terms of NGST. The brain contains three levels or strata (Fig. 7.7 (a) below). These are:

1) The oldest stratum (in the evolutionary sense): the brainstem, cerebellum, basal ganglia and reticular formation - the origin of the most primal, 'raw' emotion and the most basic drives, sometimes called the 'reptilian' brain. The entire formation of this stratum takes place in the womb.

2) The next-oldest stratum: the limbic system, relating to short and long-term memory and the regulation of affect - sometimes called the 'mammalian' brain. This stratum is formed during both pre- and post-partum phases.

3) The most recent stratum: the cortex, dealing with specific language acquisition and advanced cognition - called the 'hominid' brain. This stratum is also formed during both pre- and postpartum phases; intense neural generation and *basic* structuring occurs prior to birth (primary epigenesis) while selection, apoptosis and the strengthening of re-entrant connections take place primarily after birth (secondary epigenesis).

(a): Topographical strata of the brain

(b) Ultradense interconnectivity within cortex

(c) Massively parallel connections between cortex, limbic system, cerebellum and brainstem. No interconnectivity

(d): The 'Value System': Brain-spanning neurotransmitter flow from more evolutionarily 'archaic' regions
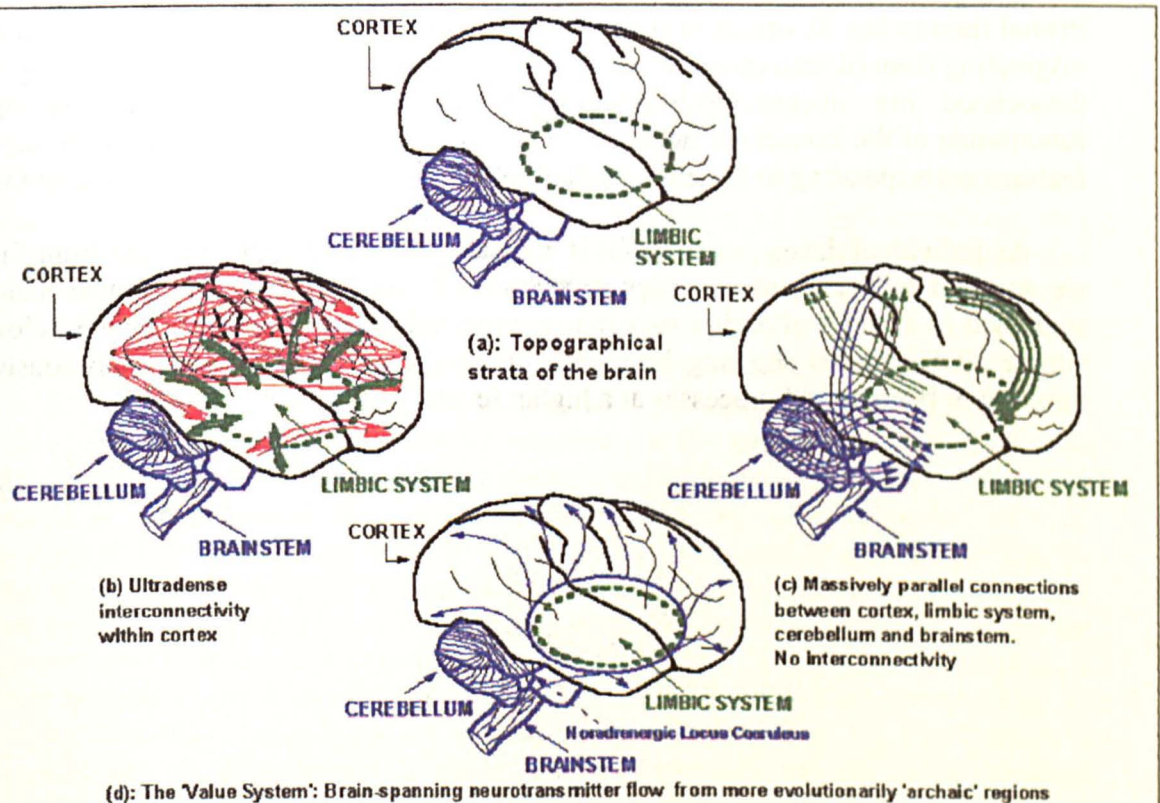
Fig. 7.7: Three Main Systems of Interconnection

Within and between these strata, there are three main systems of neural interconnection or 'topological arrangements of fundamental neuroanatomy' (Edelman 2000 pp.42-47). These systems are also shown in Fig. 7.7. The area of ultradense connectivity within the cortex (Fig. 7.7 (b)) contains the developed and selected neural groups which themselves interact in clusters under the governance of dominant groups called *dynamic cores* (*ibid.* pp.139-54). These cores maintain themselves in dynamic equilibrium from moment to moment, integrating sensory, perceptual, proprioceptory, motor, memory and intentional systems and forming the basis of what we call 'conscious experience' (*ibid.* p.179). The shifting composition of neural groups and interconnections comprising the dynamic core alternate between structurally-stable states which define and give meaning to what we experience as philosophical *qualia* (ibid. pp.157-75).

Fig. 7.7 (a) shows the three topographical strata described above. Fig. 7.7 (b) shows the interconnection system within the 'youngest' part of the brain - the cortex. The node points are not individual neurons but neural groups. In reality, the network would be a billion times more dense. There is much neural *degeneracy* (ch. 6) - i.e. many groups or clusters can serve similar functions. Fig. 7.7. (c) shows massively parallel connections between the second oldest structural level (the 'limbic system') and the cortex. There is little or no connectivity *between* these pathways. Fig. 7.7 (d) shows only one of the main neurotransmitter flow paths (in this case from the noradrenergic locus coeruleus) conveying the 'raw emotionality' of the primal drives - the origin of our 'value systems'. Primal trauma has its origin in (c) and (d). Trauma induced neurotransmitter imbalance originating from (d) can cause structural damage to the limbic system in (c), giving rise to dissociated but unconsciously-functioning neural clusters that bias the operant functioning of the 'conscious' networks of (a). We propose that these bias paths may have features corresponding to the more 'archaic' elementary catastrophes discussed so far.

As individual development unfolds, mental processes complexify, and from Fig. 7.4 we see that higher, more complex processes will be biased by catastrophe manifolds stabilised as a result of earlier experience, especially that of trauma. Fig. 7.8 below is a simple NGST model showing how early traumatic experience can unconsciously bias thinking or behavioural processes at a higher level.
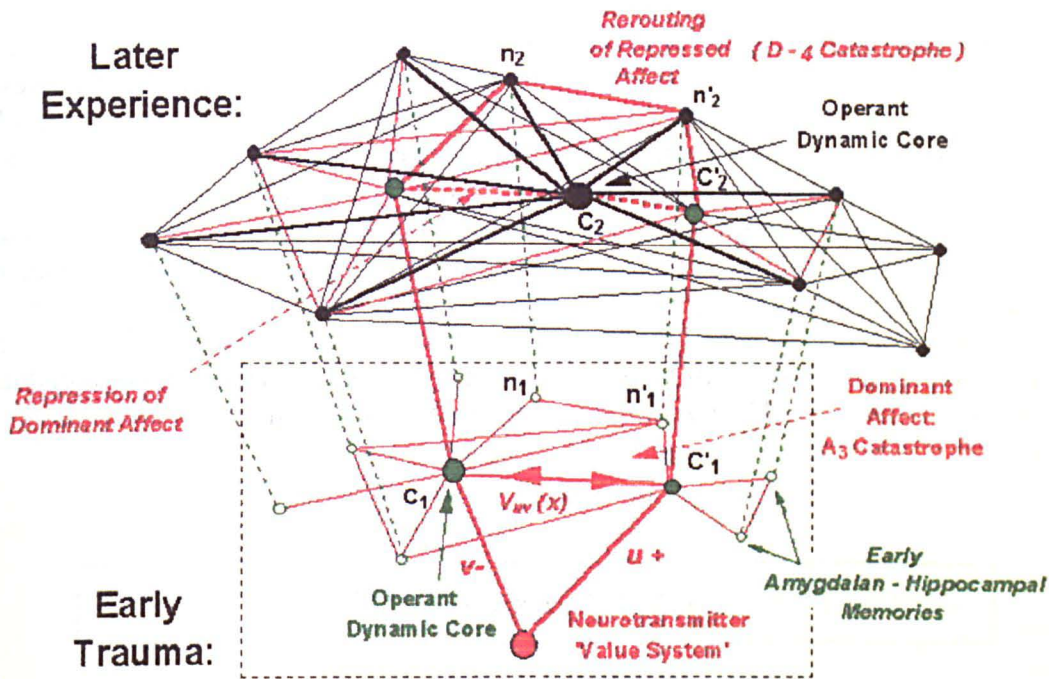
Fig. 7.8: An NGST Model of Affective Bias.

In Fig. 7,8 an early experience is imprinted on the dynamic core (C_1) operant at that particular time. This imprinting is reinforced by a strong flow of affect emanating from the 'value systems' of the basal brain (Fig. 7.7 (d) above). This affect is distributed through a network of selected neural groups (green circles) linked with the amygdalan and hippocampal memory systems contributing to and associated with, the emergence of the dynamic core C_1. If the emotion associated with that experience is both powerful and negative ($u+$ and $v-$ in Fig. 7.10 below), the total flow pattern may become stabilised as an A_3 (cusp) catastrophe biased towards the negative -i.e. a traumatic memory is created, and subsequently repressed. The circumstances of a later life experience may restimulate the pattern of affect associated with this earlier experience. Due to partial or total dissociation of the memories of this event, the strong flow pattern linking the former dynamic core C_1 to a strong but subordinate nexus C'_1 remains repressed, but becomes rerouted through what was formerly a weaker connective path, $n_1 \rightarrow n'_1$ in the earlier experience, now creating a stronger connection $n_2 \rightarrow n'_2$. The traumatic residue is therefore not experienced directly. The former $C_1 \rightarrow C'_1$ connection creating the A_3 catastrophe dynamic is now bypassed via the connected groups $n_2 \rightarrow n'_2$, through a transference path occurring within the more complex *hyperbolic umbilic* or D_4 manifold whose bifurcation set enfields three negative cusps. A critical link within the dynamic core determining the behavioural response to a current event $C_2 \rightarrow C'_2$ now becomes unconsciously biased by the traumatic residue of the earlier stabilised link $C_1 \rightarrow C'_1$.

7.8. Archetypal Morphologies: CT-Semantics.

As a specific technique, catastrophe-theoretic semantics was 'inaugurated' by Thom, but was considerably expanded and developed by Wildgen (1982) and by the present author (1999). The rich structure of the canonical forms of elementary catastrophes potentially contain many *archetypal morphologies*. These are equivalent to the mental representations or imprintings discussed in ch. 4. Archetypal morphologies are prelinguistic, i.e. while their canonical forms represent implicit unfoldings created through the molecular, cellular, somatic and sensory encoding of perinatal experience and early infancy, their explicit articulation through neural speech centres represents the semantic fixing of experience through socialisation. Access to the morphologies that underlie semantic expression can be gained through the context-dependent interpretation of *attributional dynamics*. The overall analytic scheme is shown in Fig. 7.9 below.
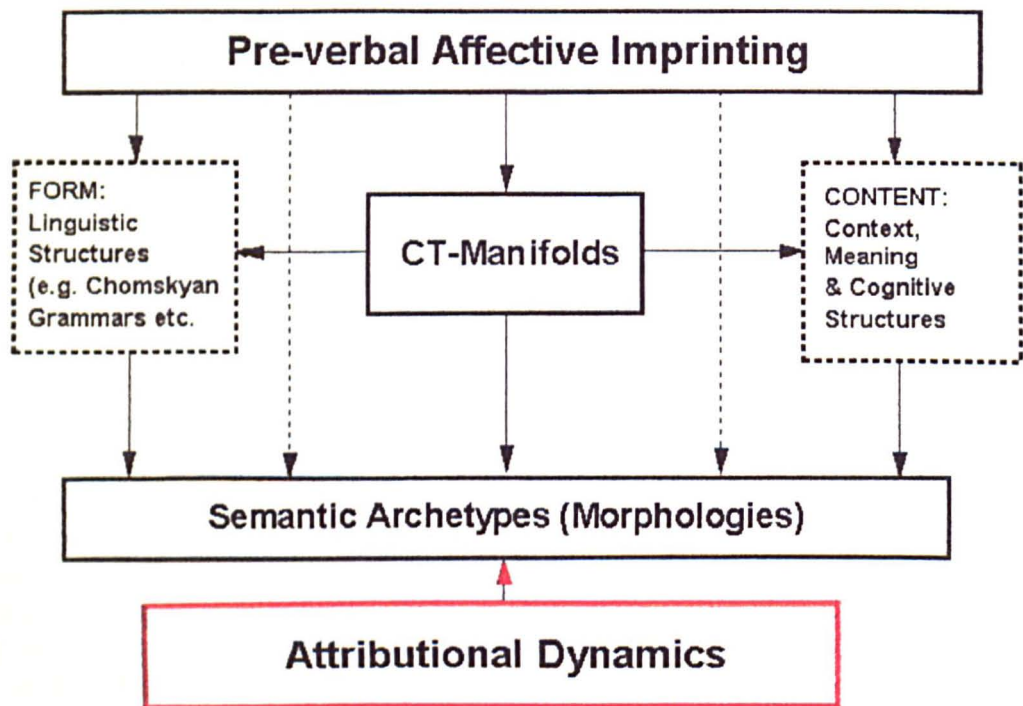
Fig. 7.9: A Generalised CT-Model of Language Processing

CT-semantics is a complex and subtle interpretative field. The basic manifolds and the morphologies they contain illustrate all the principles involved in growth, development, enfielding, archetypal content (the underlying psychodynamic mechanisms from primal splitting, through modes of defense to modes of compromise) and semantic attribution. *Attributional dynamics* are organised into a semi-grammatical paradigm in order to classify the types of stable attractor operating within a given morphology and the

functional relationships between them - i.e. the 'catastrophes' themselves. The stable attractors and their catastrophic bindings appear both as linguistic structures (FORM in Fig. 7.9) and cognitive frameworks (CONTENT in Fig. 7.9) The CT-models themselves are the analytic 'middle ground'. Stable attractors appear *linguistically* as nouns, noun phrases, pronouns or proper names, while *cognitively* they appear as individuals, objects, substances, qualities, types of movement etc. - i.e. entities possessing stable existence from the perspective of the language user. Catastrophes appear in the *linguistic* domain as *verbs* - expressions of dynamic change, transition or interaction as well as agents or means of action. They appear *cognitively* as *non-specific memories of stored experience* relating to change, transition, motion or other forms of action.

Morphologies are interpreted variously at the surface level depending on context (although their underlying structures are stable). The following interpretations hint at the neurolinguistic origins of the Indo-European case system (and those of other languages employing noun declension and verb conjugation) but are not necessarily identical with grammatical usage.

(i) *Localistic*: the stable or metastable existence of objects or entities, their birth, death and locations in space and time. This interpretation prefigures the syntactic *nominative, accusative, dative, locative and (partly) genitive cases.*

(ii) *Qualitative:* the attribution to or between entities of qualities or descriptive states - the 'qualitative' dimension, rather than that of space-time and the changes or shifts between descriptive states in a bipolar or tripolar field. This interpretation prefigures the syntactic *adjective or adjectival phrase,* but the attribution is dynamic (metastable) rather than static.

(iii) *Phasic:* The attribution of goal-oriented energy at various stages in a transition process. The expression of rhythmic activity. There is no exact syntactic equivalent.

(iv) *Agential:* Attractors expressing tools or means, or catastrophes expressing processes of capture, dominance, release emission or possession.

(v) *Possessive* or *Transference of the Possessive:* prefigures the syntactic *genitive.*

(vi) *Instrumental:* This interpretation, together with (iv) and (v) prefigures certain properties of the syntactic *ablative, instrumental, genitive* and *dative* cases. This is shown by the degree of convergence between ablative, instrumental and dative plural case endings in synthetic languages (e.g. of the Indo-European group - Latin, Greek, Slavic, Celtic and Baltic). Similar interpretations hold for analytic (non-synthetic) languages although their expression within the syntactic structures of these languages will necessarily be different.

The cuspoid 'splitting process' begins with the growth of the blastocyst through mitosis and continues after implantation with successive waves and frontiers of tissue differentiation during morphogenesis of the embryo (Zeeman 1977 pp.141-233). Psychic

growth also evolves in parallel with the morphogenetic trajectory of the organism, expanding from the molecular base to incorporate and structure the various experiences of differentiation through successive enfieldings within higher, more complex manifolds. The neural encoding of these experiences culminates in the first major transition point in the lifetime of the developing organism - the birth catastrophe - the initial and final archetype of all differentiation and separation.

The cusp manifold is therefore the prime differential manifold impacting upon the neural mass at birth, and becomes the primary shared interactive field for bijective mappings between infant and caregiver - the mechanisms of projection and introjection. Projective–introjective morphologies or archetypes are created by pathways through the bifurcation set **B** of the manifold **M** (Fig. 7.10 below). These pathways traverse the structurally-stable discontinuities that are characteristic of the manifold, reflecting the changing values of the potential **V(x)** (the behavioural variable) that are *transverse* to the stratification of **M** itself. In Fig. 7.10 four values of the function **V(x)** are shown for *arbitrary fixed points* in the plane of the external variables *u* and *v* (**L1-4** in Fig. 7.10).
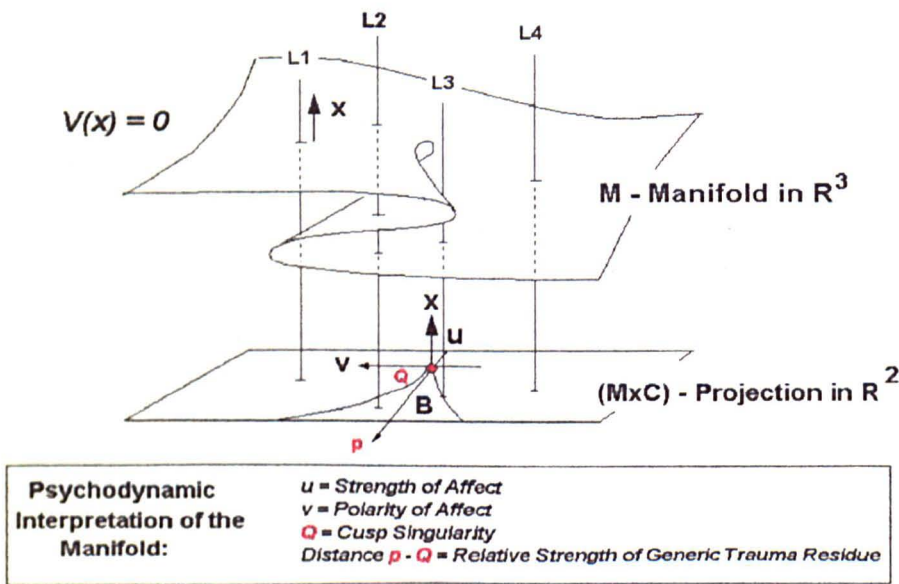
Fig. 7.10: Transverse Intersections of the Cusp Manifold by Arbitrary Projections of the Potential V(x).

Psychodynamically, the control parameter *u* is interpreted as *strength of affect*, increasing in the direction of the bifurcation set **B**. The second parameter *v* represents *polarity* of affect and is either positive or negative on either side of the axis of the bifurcation set. The axis line along *u* marks ambivalence. Point **Q** is the cusp singularity marking the onset of traumatic memory - the initiation of two folds representing birth and death respectively. The degree of experienced trauma - the schizoid legacy, is determined by the distance **p - Q**. The 'shape' of the behavioural potential **V(x)** will depend on the

number of times the vertical line representing the value of $V(x)$ **(L1-4)** cuts through the manifold M (Fig. 7.11).
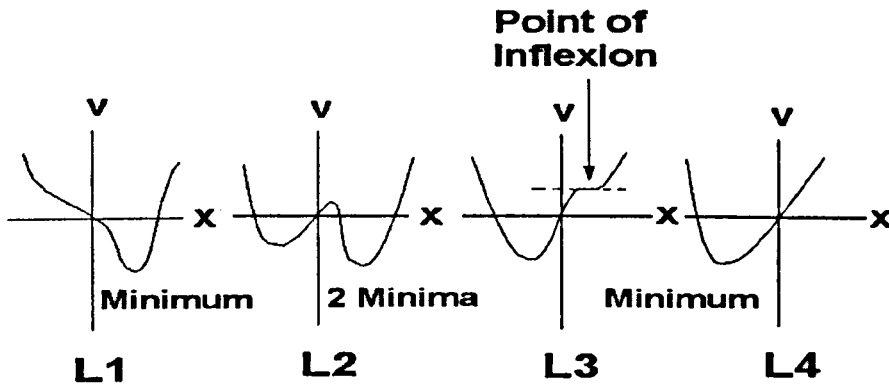
Fig. 7.11: The Resulting Shapes of V(x).

Archetypes are semantic interpretations of underlying *morphologies*. They are defined by vectors that traverse the manifold in any direction and are 'shaped' by the continuous values of $V(x)$. The resulting 'shape' of the pathway has specific features called *catastrophe features* (CF's) - the 'building blocks' of all morphologies. The *concatenation* or linking of these features as a pathway crosses the bifurcation set is called the *ordered set* of catastrophe features. The elementary catastrophe features found in the first three members of the A_k (cuspoid) group are as follows (Fig. 7.12 - after Wildgen 1982 p.12):

Fig. 7.12: Catastrophe Features of the Zero-Unfolding, the Fold and the Cusp

In reality, the points represented by **L1-4** in Fig. 7.10 are never fixed, but mobile. We will now trace 4 pathways across or near the bifurcation set of the cusp and derive archetypes for each of them (cf. Wildgen 1982 p.15):
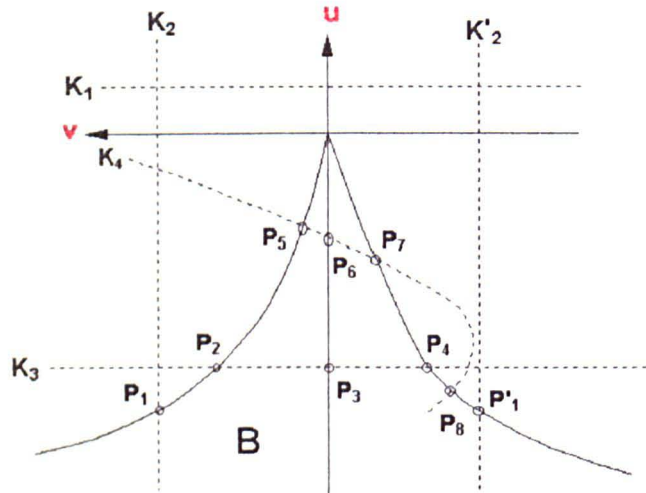
Fig. 7.13: Generic Paths Relative to the Bifurcation Set B.

Path K_1 does not actually cross the bifurcation set and therefore has no explicit catastrophe features. This is an expression of the most primitive manifold - the zero-unfolding - interpreted as the *archetype of stable existence* or intrauterine stasis, discussed above. Paths K_2 and K'_2 each cross the bifurcation set once and may move in either direction parallel to the u-axis. As K_2 intersects B at P_1 a bifurcation occurs, producing catastrophe features C_{21} or D_{21} (see Fig. 7.12) depending on the direction taken. The same happens with path $K'2$, in which catastrophe features C_{12} or D_{12} appear, again depending on the direction taken. In these cases we have either the prelinguistic archetype of *caused, conditioned or controlled appearance, creation, birth, release or emission* - i.e. of psychodynamic *projection* - or that of *caused, conditioned or controlled disappearance, destruction, death, capture or submission (appropriation)* - i.e. of psychodynamic *introjection*.

The richest path in the bifurcation set of the cusp, and the one that generates its central archetype, is K_3. Here, depending on the pathway chosen, we have the concatenation of CF's $\{D_{21} - E_{21} - C_{12})$ or $\{D_{12} - C_{12} - C_{21}\}$ (Fig. 7.12). This pathway is termed the 'richest' since it can be interpreted using an extensive variety of attributional dynamics, i.e.

(i) The *Localistic* interpretation: the prelinguistic archetype of *local change or transition from one place to another*, e.g. *x* moves from location A to location B.

(ii) The *Qualitative* interpretation: the prelinguistic archetype of *bipolar quality change*, i.e. any expression involving a transition between opposites such as *light ↔ dark, good ↔ bad, big ↔ small, us ↔ them* etc.

(iii) The *Phasic* interpretation: the prelinguistic archetype of *phase transition*, i.e. a shift from tension to rest, liquid to gas, war to peace, etc.

(iv) The *Possessive* interpretation: the prelinguistic archetype of *giving* or of *change in possession*, e.g. object *x* is transferred from person A to person B, X gives Y to Z etc. The psychodynamic analogues are those of *internalisation* and *identification*.

(v) The *Interactive* interpretation: an expansion of the archetypes of *birth/death, capture/emission* etc. This archetype combines and compactifies the fold catastrophe paths of K_2 and K'_2. It is this compactification of the two enfielded catastrophes A_2 and the 'zero-unfolding' into a single structure that gives the cusp its distinctiveness and stability. It is here that we see the combination of projection and introjection into a single, bijective mapping.

(vi) The *Instrumental* interpretation: this interpretation together with (v) constitutes the central CT-paradigm for biological movement and contains the basic archetypes for such body movements as reaching out or extending a limb (D_{12}, D_{21} Fig. 9.7), then retracting it (C_{12}, C_{21} Fig. 9.7) as well as all naturally occurring quasi-periodic movements such as respiration, heart rate etc.

The K_4 pathway is *composite*, i.e. it concatenates the catastrophe features of paths K_3 and K'_2. It illustrates how vector fields on the cusp manifold can be quite complex and may even have an oscillatory character (especially if *v* runs along the axis of the bifurcation set). Critical experiences during the earliest phases of the infant-caregiver relationship result in the imprinting of *K*-paths across the manifold. The context and duration of the imprinted experience stabilise the vector path K_n and the resulting morphology or 'mental representation' passes into memory. Semantic fixing of this morphology will retain the *latent* affect associated with it. The lexical content and affective context of a later experience will determine the strength of *v* in that context and the degree of splitting that will occur in the bipolar field. K_4-type paths create substrates for more subtle and varied defensive mechanisms involving bipolar transfer, such as reaction formation, condensation, displacement or reversal.

Similar techniques are employed to derive archetypes from higher-order catastrophes. Through this we gain a deeper understanding of the topological analogues of intrauterine stasis, of birth as death and transition, and of the cusp's central role in the psychodynamic mechanisms of splitting, repression, denial, reaction formation and other mechanisms involving bipolar or bimodal behaviour. Archetypal morphologies form the grammar of the unconscious, linked by attributional dynamics to the preconscious, thence expressed consciously in the grammar and lexical content of a specific language. Since

archetypal morphologies exist independently of the syntactic structures and semantic weightings of specific languages, CT-semantics permits a much deeper, bias-free analysis of the fantasy structures of speech and literature than the methods currently employed in IPA-style analysis.

7.9. Social Trance Induction as Order Parameter Emergence.

We now present a dynamic model showing how social trance induction can be studied as an example of order parameter emergence. This model was proposed by Haken (1996) and developed further by the present author in collaboration with Haken at the 9th Herbstakademie Conference on the Self-Organisation of Cognition, Ascona, Switzerland, 2000.

When an individual participates in a group dynamic between leader and led, there is a partition interface between the events taking place in the external environment and the way these events are processed, both consciously and unconsciously, by the participant. Fig. 7.16 (a) and (b) below illustrate this partition interface. In Fig. 7.16 (a) below, $q^{(e)}$ represents the conscious dimension of this partition interface while $q^{(i)}$ represents the path of preconscious-unconscious processing. External material impinges on the individual at $u_j^{(e)}$, passing directly to $v_j^{(i)}$, the network of frames or imprintings evoked in memory by the presenting situation. This material is mapped onto these memories and filtered through the emotional residue associated with them $(u_j^{(i)})$. The resulting affect-laden images determine the type of dynamic core which will emerge at ξ_j and precipitate the external behavioural response $v_j^{(e)}$, which is then communicated both to the speaker and to other members of the group. The input-output sequence can be expressed as a trajectory or flow on the basic cusp manifold $(A\pm_3)$, the archetype of bipolar differentiation and response mediating the interaction between individual perception and the external environment.

(a) Pentad:
information processing and
behavioural response

(b) Partition interface
expressed as an
A₃ Catastrophe
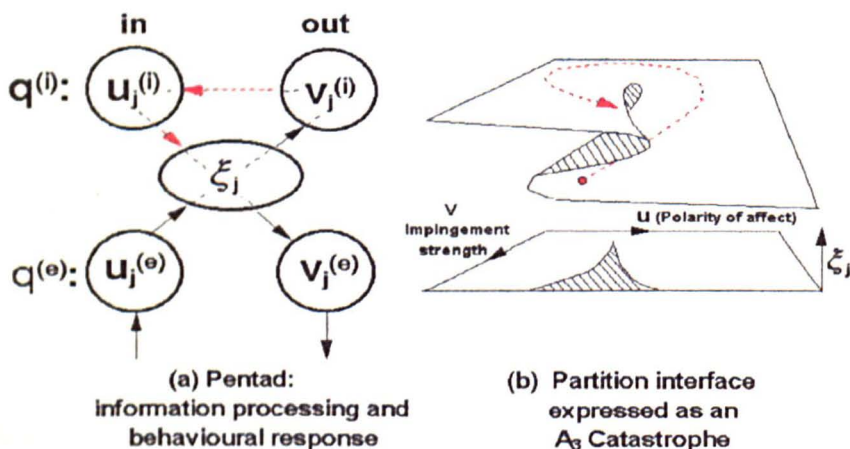
Figs. 7.16 (a) and (b): Pentad representing the Partition Interface and Cusp Catastrophe Analogue.

In a crowd situation the individual pentad of Fig. 7.16 (a) becomes concatenated with others to form a receptive 'basin' around the speaker. For the sake of simplicity, three such pentads are shown in Fig. 7.17 below, only the first of which is 'filled in'.
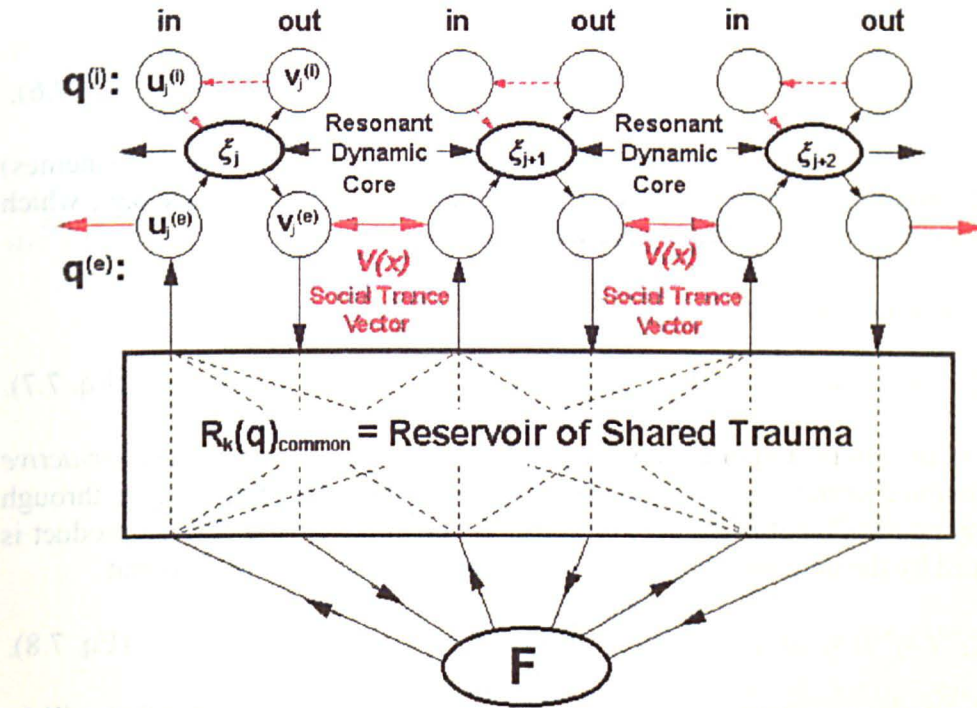

Fig. 7.17: The Social Trance as Emergent Order Parameter and Shared Dynamic Core.

In Fig. 7.17 the order parameter ξ_j is the shared dynamic core which 'enslaves' the various participants in an emergent group-fantasy driven by the state variable $V(x)$ - the social trance vector representing the communication rate between participants. The three individuals shown in Fig. 7.17 are linked to each other by this vector as well as separately to the focus F (the speaker) who both *induces* the trance and *projects* the dominant group-fantasy, drawing on a *shared reservoir* of childhood, developmental and historical trauma, $(R_k(q)_{common})$. There are two communication pathways, internal $(q^{(i)})$ and external $(q^{(e)})$, in which $q^{(e)}$, the total number of possible behaviours at time t, is given by:

$$q^{(e)}(t) = \Sigma (F(\xi_j^{(i)}) v_j^{(e)}))\qquad\text{(Eq. 7.4),}$$

where $v_j^{(e)}$ represents the behavioural output of a single individual (cf. Haken 1996 pp.292 *et seq.*) and F the emotional valence of the speaker. In the same way $q^{(i)}$, the sum of impressions received and 'stored' by each participant, is given by:

$$q^{(i)}(t) = \Sigma (F(\xi_j^{(i)}) v_j^{(i)}))$$

(Eq. 7.5),

where $v_j^{(i)}$ represents the entire group of semantically-fixed archetypes or *memes* learned and stored by previous experience, including the projected schemata of family relationships. These sums of impressions received and possible responses to them are now subject first to a mapping, then to a filtering process. Thus, in the first place we have the resultant *external* data vector $q^{(e)}$ given by:

$$q^{(e)} = \Sigma (\xi_j^{(e)}) u_j^{(e)} + w^{(e)}$$

(Eq. 7.6),

where $u_j^{(e)}$ represents the reception of semantically-fixed archetypes (memes) communicated through the words, gestures and emotional valence of the speaker, which are then mapped onto $v_j^{(i)}$ ($w^{(e)}$ being a remainder term).

Similarly, the final state of the *internally*-mapped signal $q^{(i)}$ is given by:

$$q^{(i)} = \Sigma (\xi_j^{(i)}) u_j^{(i)} + w^{(i)}.$$

(Eq. 7.7).

Here, $u_j^{(i)}$ is of crucial importance since it represents *the repressed but ever-active residue of dissociated primal trauma* - the source of the individuals affective bias through which the mapping of $u_j^{(e)}$ onto $v_j^{(i)}$ must be filtered. This mapped and filtered product is in turn reinforced by the emergent group fantasy communicated through ξ_j so that

$$v_j^{(e)} = F((\xi_j^{(e)}(u_j^{(e)})(v_j^{(i)}))/\xi_j^{(i)}(u_j^{(i)}))$$

(Eq. 7.8).

This residue, $u_j^{(i)}$ constitutes the 'germ' of the individual's social alter that will be catalysed by the emotional content of the total setting, i.e. $\Sigma(v_j^{(i)}) + R_k(q)_{common}$ and will communicate with all other dissociated identities $\Sigma(u_j^{(i)})$ along the $q^{(e)}$ communication trajectory thus:

$$q_{n+1}^{(e)}(t = 0) = q_n^{(e)}(t \rightarrow \infty), n = 1,2,3 \ldots$$

(Eq. 7.9),

to determine the relative strengths and composite CF-structures of $V(x)$, and hence the overall weighting of ξ_j with respect to other competing parameters. The emergence of a dominant order parameter is not the result of free competition between alternative parameters along a converging sequence of individual perceptions. Rather, the dominant parameter is at once both *evoked* by the memes propagated by the social trance focus F and *enhanced* a) recursively, through the shared emotions of the group and b) through the emotional power communicated 'subliminally' by the focus F - i.e. the *strength of the collective transference* from group to leader - also a recursive phenomenon since both group and focus 'feed off' each other. $V(x)$ can therefore be approximately expressed as follows:

$$V(x) = \sum_{j=1}^{n} F_u (V(\xi_j / v_j^{(e)})_n (x) + F_v(q_n^{(i)} q_n^{(e)}))$$

(Eq. 7.10),

where F_u refers to the memetic content that 'bounds' both input and output flows, and F_v refers to the strength of the transference that enhances both the trance state and the emergent fantasy. The $q^{(e)}$ - trajectories are linked through the reservoir of shared trauma $R_k(q)_{common}$ to the focus F, i.e.

$$q_k^{(e)}(0) \leftarrow (\xi_j) \rightarrow F = R_k(q)_{common}, \quad k = 1,2...n \qquad \text{(Eq. 7.11)},$$

where

$$(q)_{common} = \sum \lambda_k (q_k^{(e)}) \ (t \rightarrow \infty) \qquad \text{(Eq. 7.12)},$$

and k = the number of participating individuals, λ_k = the 'attention strength' of each individual and (0) signifies the initial point in the time series.
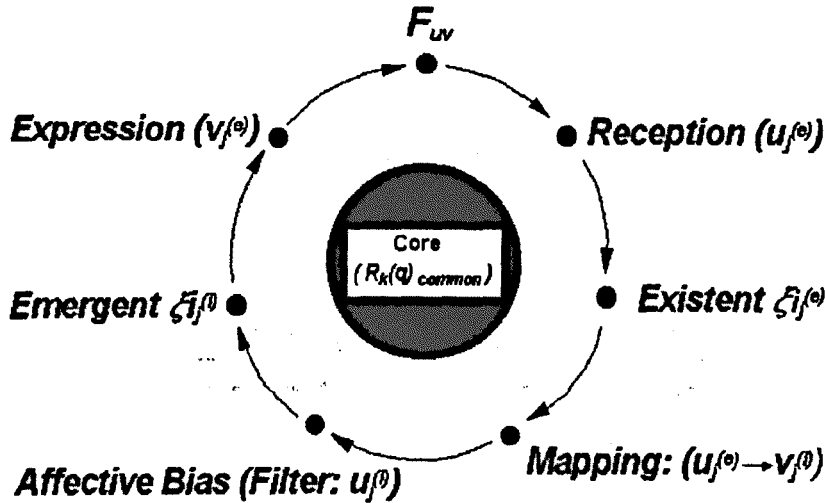
Fig. 7.18: Recursion (Self-Amplification) of Group Fantasy

Fig. 7.18 above shows the recursive, self-amplifying flow pattern of the group-fantasy as it passes through six stages en route from and back to, the focus F_{uv}. Firstly, memes projected by the speaker plus the emotional energy invested in them, are transmitted to and received by, the group ($u_j^{(e)}$ of Eq. 7.7. These received memes impact upon the more diffuse set of order parameters representing the prevailing 'unfocused' mood (mostly curiosity) at the beginning of a speech ('Existent $\xi_j^{(e)}$' in Fig. 7.18). This initially more diffuse material (Eqs. 7.7 and 7.8) is 'mapped' onto the memetic structures (or semantically-fixed archetypes) already present in the preconscious (i.e. $u_j^{(e)} \rightarrow v_j^{(i)}$). The product of this mapping, now 'shaped' and given structure by $v_j^{(i)}$, is now filtered

through the affective bias $u_j^{(i)}$ arising from the unconscious and derived from the repressed trauma and latent fantasy material of early experience, and what is more, *the archetypal morphologies contained within $u_j^{(i)}$ form the unconscious substrate for basic assumption dynamics.* The resulting complex of emotionally-charged material, imbued with nascent assumptions and stabilised through transference towards the focus, generates the shared fantasy ('Emergent $\xi_j^{(i'')}$') which is expressed through the group's behavioural response ($v_j^{(e)}$) towards the focus, reinforcing the speaker's confidence and catalysing further emotional energy from this source which is then fed back into the group. The overall reaction is a sigmoid-shaped rise in tension and excitement (Fig. 7.19 below). This is what is meant by *order parameter emergence.*
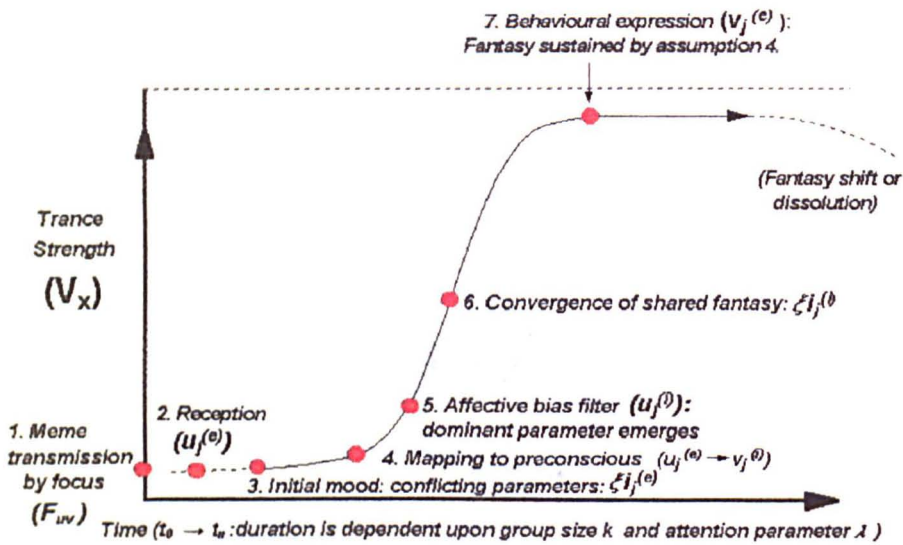
Fig. 7.19: Strength of Trance vs. Time

In terms of *Takens' embedding theorem* discussed in sect. 7.3, if the change in mood a is measured in a *certain way defined as h*, across a number m of discrete time intervals, it becomes the observation sequence a^m_t with changes marked at ($a_t, a_{t+1}..., a_{t+m-1}$) (see Eq. 7:1). It is the rates of change as measured between two discrete intervals (a_1, a_2), (a_2, a_3), (a_3, a_4) that create the *m-history*. The dynamics of the underlying trance constitute the *state vectors X_t* in the embedding theorem. These elements derive from the underlying morphologies induced by the subliminal content of the leader's speech. This is the *induction function F*, so that $a_t = h(X_t)$, $X_t = F(X_{t-1})$ and we can generalise to form Eq. 7.2. How h is to be determined depends on the history, structure, dimensionality and immediate context of the group being studied.

7.10. The Thom-Pomian Historical Chreod

We recall that catastrophe cascades occur within an interconnected group of manifolds when the state variables $V_j(x)$ of one or more initial catastrophes become the 'control' variables $(u_1, u_2, u_3..., u_n)$ for successively unfolding catastrophes. In a dense social-ecological environment, such cascades will accelerate and the successive catastrophes proliferate until the entire process culminates in a *phase transition* to a new, collective species of order, generally of greater (anastrophic) or lesser (catastrophic) centrality.

In Euroamerican history, the cascade sequence marking the transition from absolute monarchy to global capitalism began with the Dutch Revolt of 1568. From this point on, most if not all European states underwent some form of transition along the lines: *Monarchy → Revolution → Dictatorship → Restoration*. The ideal or 'canonical' form of this transition sequence was not followed by all the nations involved - chreodic *deformation* occurred in the later cascade phase due to differently timed influences of neighbouring states and premature absorption within competing attractors The first 'chreodic' chart (Fig. 7.20 (a) below) shows the historical sequence undergone by the majority of European nations following the Dutch Revolt of 1568. The following chart (Fig. 7.20 (b)) 'expands' the densest period of cascades, from 1900-1945. Here we see how the 'revolutionary avalanche' resembles the spreading fragmentation of a pane of glass - René Thom's original metaphor (and topological example) for the cascade process. René Thom and Krzysztof Pomian developed a *double-cusp gravitational model* for the process (Petitot 1978; Poston & Stewart 1976, 1978).
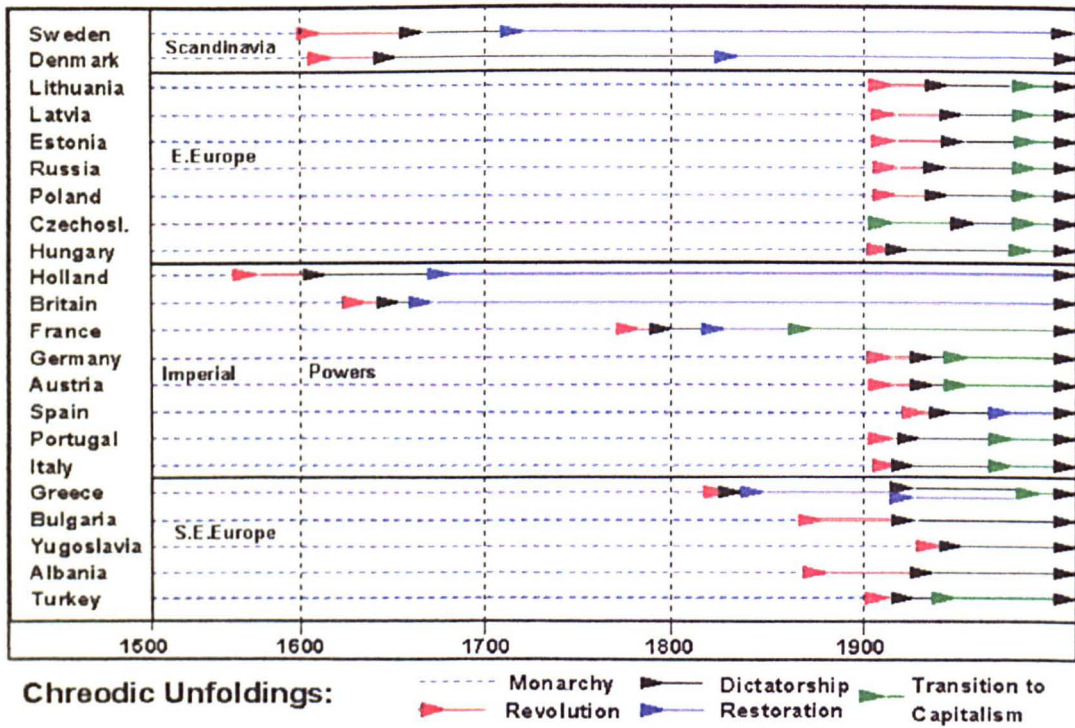
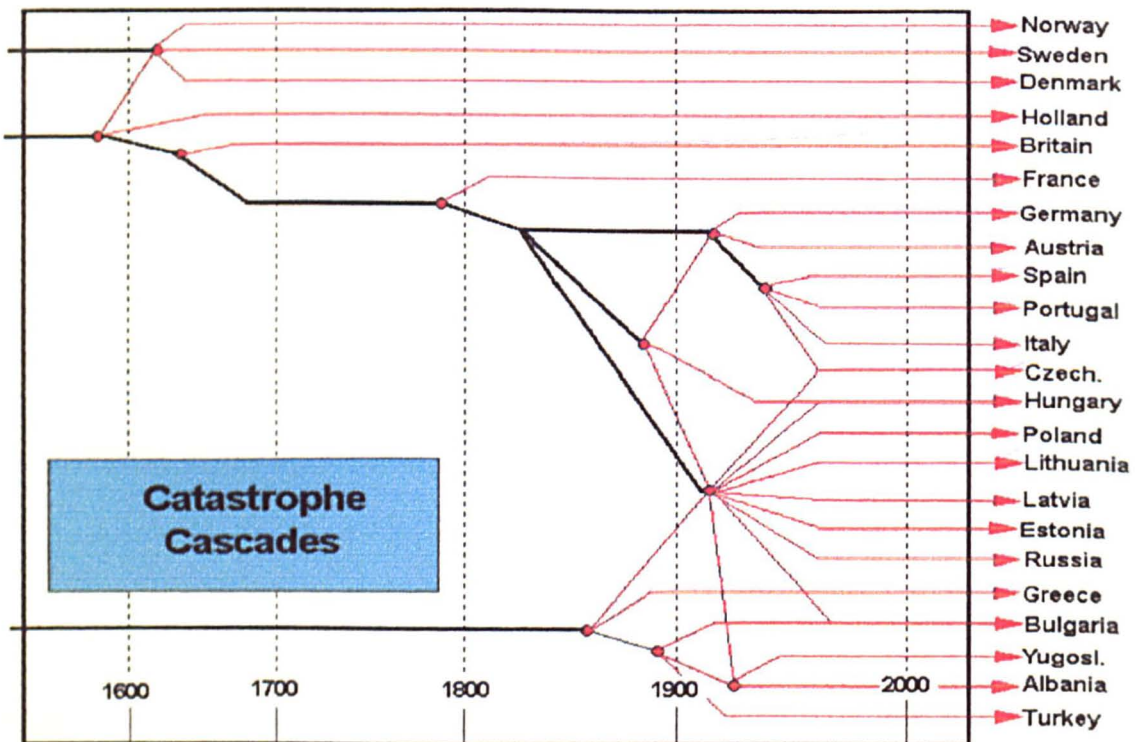**Fig. 7.20 (a) Chreodic Unfoldings**

Fig. 7.20 (b) Accelerating Catastrophe Cascades From 1850

The Thom-Pomian chreod is a social-psychological analogue of the Zeeman gravitational catastrophe machine (Zeeman 1977; Poston & Stewart 1976). It is also a dynamic illustration of the principles governing catastrophe-theoretic semantics, as described above. The basic conceptual scheme of the model is shown in Fig. 7.21. The interpretation is a condensation and re-interpretation the Petitot analysis (Petitot 1978 pp. 51-54).
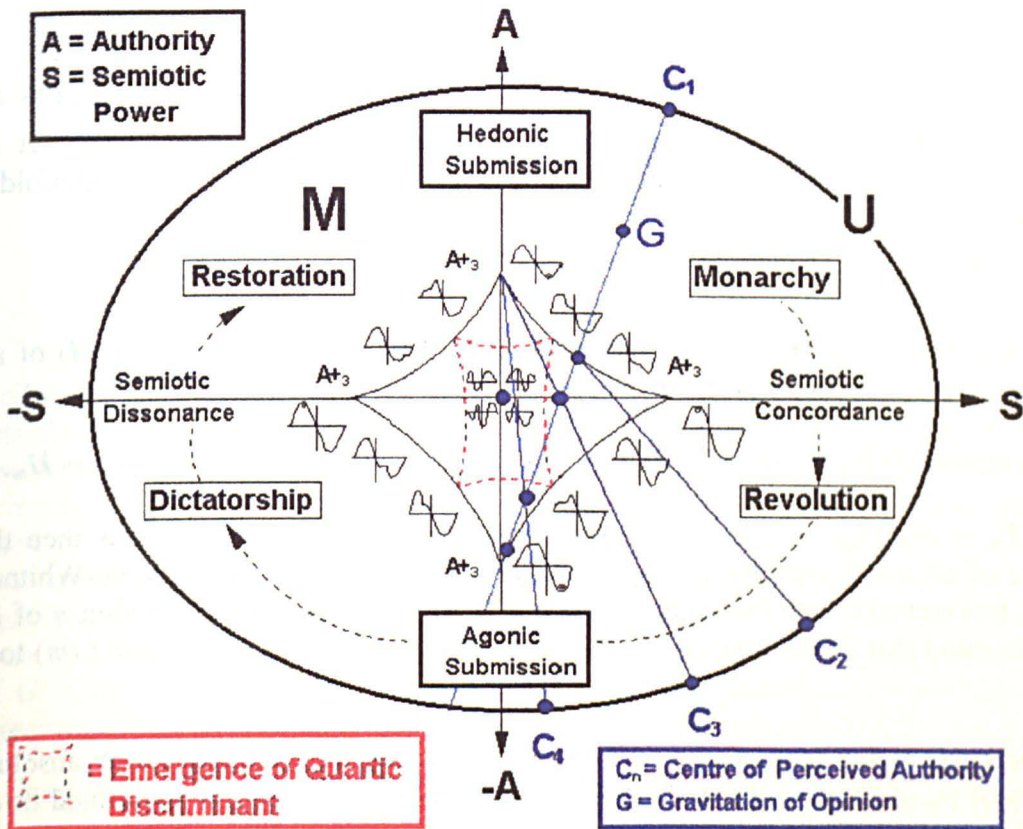
Fig. 7.21: Basic Dynamic of the Thom-Pomian Chreod.

Hypothesis 1: Let **U** be the external space where political régimes are located, and **M** the internal (psychological) space where régimes are granted authority to the degree that the perception of these régimes by the *demos* or general populace accords with the interiorised imago of parental authority represented by the superego. Within **M**, the mass of points (each representing an individual opinion) will form aggregates reflecting the 'gravitation' of opinion among ruling groups (*groupes cratiques*) and the *demos* in general. The central point (C_n) within the psychological space **M** is that point towards which the *majority* of demotic opinions gravitate (in the statistical sense of a standard normal distribution or Gaussian curve). Point **G** on **U** is the centre of legal, although not necessarily legitimate (from the point of view of the demos) authority - i.e. **G** represents the dominant régime. A situation of conflict exists between **G** and C_n - i.e. power will accrue to C_n in inverse proportion to its accretion at **G**.

A static model will consist of a family of potentials $F: M \times U \to \mathfrak{R}$, parameterised by $u = G(F(m,u)) = F_u(m)$ where F represents concordance between the dominant régime and the prevailing weight of opinion, thus schematically:

$$U[\leftarrow G \rightarrow]U$$
$$\uparrow$$
$$F$$
$$\downarrow$$
$$M[\leftarrow C_n \rightarrow]M.$$

By analogy with the Zeeman gravitational catastrophe machine, F induces an embedding of M in U. Let $F(m,u) = F_u(m)$ be the behavioural variable and let $\mathcal{F}$ represent the function space of the family of potentials $f: M \to \mathfrak{R}$. F induces a manifold φ such that:

$$\varphi: U \to \mathcal{F}$$
$$u \to f_u.$$

Let $m \in M$ and let $H_m \subset F$ be the sub-vector of $\mathcal{F}$ (of codim $n = $ dim M) of all potentials f containing a critical point in m.

Assumption 1: If dim $M < $ dim U, φ is generically transverse to all sub-vectors H_m.

Let $\Gamma_m = \sigma\text{-}1(H_m)$, the inverse of H_m created by the field φ in U. F_m is then the aggregate of all $u \in U$ containing m as a critical point. By appeal to the Thom-Whitney theorem, transversality conditions on φ imply that Γ_m is a sub-variety of codim n of U, bearing in mind that the restriction ψ_m of $F(m,u)$ in Γ_m assigns a critical value $f_u(m)$ to $u \in \Gamma_m$.

Hypothesis 2: For each $m \in M$, a single $u \in \Gamma_m$ exists such that $f_u(m)$ is an absolute minimum of ψ_m. Assuming this to be true, we designate $\mu(m)$ the point so defined in U. Then the application:

$$\mu: M \to U$$
$$m \to \mu(m)$$

is assigned to the optimisation dynamic F.

Assumption 2: if dim $M < $ dim U, then μ is generically an embedding. How is this to be interpreted?

Let $m \in M$ be a régime compatible with the general paradigm. Γ_m (or at least that part of Γ_m corresponding to a minimum of $f_u(m)$) is the aggregate of opinions that converge (as a normal distribution) on m and $\mu(m) \in \Gamma_m$, defined as maximisation, is the average limit of the aggregate of opinions converging on M. The embedding μ of the internal space M in U comes to define C_n - the axis of conflict - within the defining limits of the general paradigm.

With 2-dimensional control variables in U, $\mu(m)$ (assuming it *exists*) *will create a boundary in the neighbourhood of the origin, with the average opinion aggregate* $u = G$ situated within, in accordance with the general structure of the model. Generically, there exist co-ordinates for U for which $\mu(m)$ will be an ellipse.

Hypothesis 3: It is assumed that $\mu(m)$ is already an ellipse within the initial co-ordinates representing authority vs. semiotic power, and that the metric defined on U, locally isomorphic with $(\Re^2, 0)$, has real meaning.

The initially static model has therefore become transformed into a dynamic one by analogy with the Zeeman gravitational catastrophe machine where:

  (i) C_n, optimally determined by $u = G$, is the base of the shortest normal projected from G onto $\mu(m)$ and

  (ii) the conflict between C_n and G has catastrophic properties as G crosses the envelope K of normals on $\mu(m)$.

The basic concept of the Thom-Pomian model is shown graphically in the ellipse model. It is the 'weight' of the internalised superego - the *perception* of authority - that catalyses the gravitation of opinion G to bring about catastrophic shifts in the centre of *perceived* authority C_n. The ellipse - the path traversed by C_n - is formed by the perpendicular *normals* from G through the bifurcation set B contained within the ellipse. Each position of G has multiple normals to the ellipse, shown in the chart as lines connecting C_1, C_2, C_3 and C_4 through G. When G lies within the bifurcation set, four equilibrium states are possible - two stable and two unstable. Which point the system finds itself in will depend on the evolutionary history of G. The 'catalyst' for the motion of G is the *shifting internal perception of authority caused by the evolution of re-enactment fantasies within the psychohistorical matrix.*

The Thom-Pomian chreod is an example of *Internal Representational Network*-type interactions between internal and external variables expressed on two catastrophe manifolds - the external manifold M and the internal manifold U, both contained within $\Re^n$. In the family of potentials $F : M \times U \rightarrow \Re$ parameterised by $u = G(F(m,u) = f_u(m))$ (see above), the unique values of the potential F with respect to U - where F induces the field

$$\phi : U \rightarrow F,$$
$$u \rightarrow f_u$$

within the function space $\mathcal{F} = f : m \rightarrow \Re$ - trace the evolution of G from *Monarchy* (A^+, S^+) through increasing liberalism (A^-, S^+) to *Revolution* (A^-, S^-), to *Dictatorship* (A^+, S^-) and finally *Restoration* (A^+, S^+). The restored monarchy is not, of course, the same as before. The red 'asteroid' within the bifurcation set B of the ellipse represents the barycentres of equilibria $\partial u / \partial \theta$ in the original gravitational catastrophe machine - the boundaries of the area within which equilibria are immediately and 'catastrophically' restored. The shape of the asteroid evolves over time for given positions of G with slope a - and corresponds to the discriminant spectra for quartics, given by:

$$Re(z^4 + \beta z^3 \bar{z} + \gamma \beta z^2 \bar{z}^2).$$

Its evolution is shown in Fig. 7.22 below (cf. Petitot *op.cit.* pp. 61-3). The quartic discriminant (like that of the cubic in A_3) determines the complex unfolding over time of the bifurcation set of the double cusp X_9. In Fig. 7.22 the interval $0 \rightarrow a$ $(= \pi/2)$ indicates rising energy in the overall system. If $\alpha \neq 0$, the overall energy $E_{G,a}$ is no longer periodic and transitional instabilities appear in the cycle. From K_4 upwards in Fig. 7.22 the shaded portions of the asteroid contain swallowtail-type cusps of codim 3 representing non-equilibrium points: Q for $a = a_Q^{(K_5)}$ and R for $a = a_R^{(K_3)}$ (the swallowtail being one of the metastable catastrophes). At $K > K_6$ the cycle begins again, but this time involves a new historical transition.
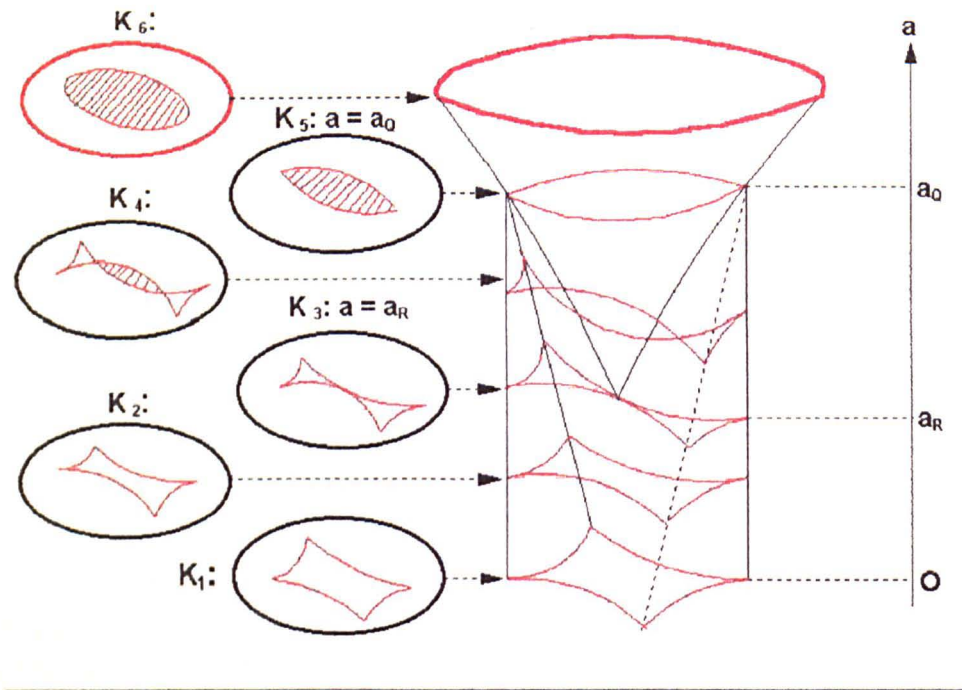
Fig. 7.22: Evolution of the Quartic Discriminant.

7.11. Historical transition and affiliation cycles.

The most significant phases of catastrophic change experienced in recent human history were the transitions from the Generation I Empires ('antiquity') to the metacultures of Generation II ('modernity'). Each of these transitions followed a similar pattern, itself an analogue of the birth process, hence Toynbee's designation of this process as 'affiliation' or 'sonship' through *palingenesis* or rebirth (Toynbee 1972). We have discussed the evolutionary factors underlying this transition in ch. 6. The 'surface pattern' is shown schematically in Fig. 7.23 below.
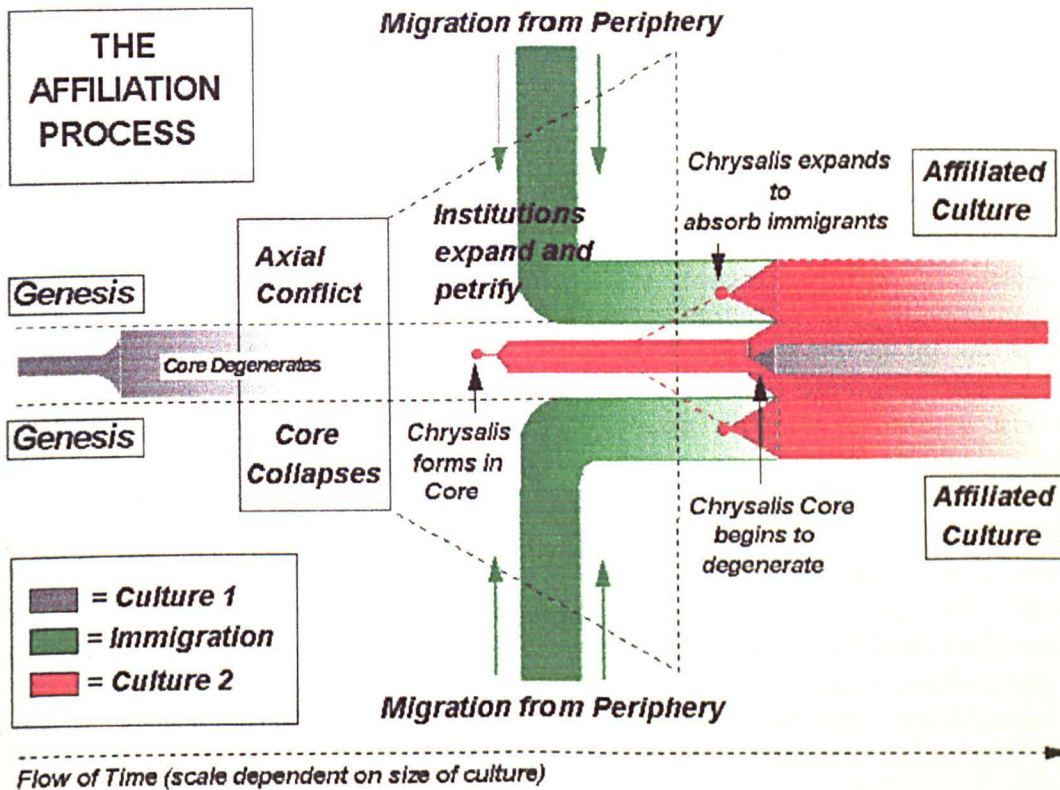
THE AFFILIATION PROCESS

Migration from Periphery

Genesis

Axial Conflict

Institutions expand and petrify

Chrysalis expands to absorb immigrants

Affiliated Culture

Core Degenerates

Genesis

Core Collapses

Chrysalis forms in Core

Chrysalis Core begins to degenerate

Affiliated Culture

= Culture 1
= Immigration
= Culture 2

Migration from Periphery

Flow of Time (scale dependent on size of culture)

Fig. 7.23: A Generalised Model of the Affiliation Process.

In Fig. 7.23, the first phase is that of *genesis* of the parent culture. As this culture develops, the collusional defensive constructs upon which it is founded reach a critical point determined by the constraint catastrophe binding them. Movement beyond this limit accelerates degeneration at the core - the domain of Toynbee's 'creative élite' or Thom's *groupes cratiques* who inherited the system from its founders - causing a reduction of 'investment in charismatic authority' on the part of the masses and their increasing marginalisation (Renfrew 1979). This degeneration eventually leads to implosion at the core which precipitates a major conflict - the 'Axial Conflict' of Fig. 7.23 - in which the anxieties provoked by the collapse of group defences are projected on to a designated 'internal' enemy, a 'poison-container', which may be an integral part of the founding culture This conflict normally takes the form of civil war, destroying the creative force of that culture's foundation. At the termination of this conflict, an empire is created in which the anxieties released by core collapse are forcibly contained and projected through material expansion outwards - by means of conquest, expropriation and enslavement. During this second, 'imperial' phase of the model, cultural institutions petrify and decay, material growth is accompanied by environmental degradation, there is an exponential increase in social 'anomie', political and economic instabilities and paranoid, increasingly brutal and desperate attempts to maintain social control. This encourages revolt and invasion from regions of the periphery as well as acts of 'terrorism' at the core. During this second, late 'imperial' phase however, a chrysalis or new vision

takes root, imported from the periphery towards the core. This chrysalis absorbs both the inner 'dispossessed' and the 'barbarians' of the periphery to become the seed of that culture's successor. The third phase is marked by collapse and turbulence (marked by the end of the expansion in Fig. 7.23) - a typical 'Dark Age' in which the institutions of the parent culture are gradually reformed in accordance with the requirements of the 'affiliated' successor, which thereupon begins to stabilise and expand. What are the historical realities underlying this model?

Historically speaking, each metaculture experienced the affiliation process differently and at slightly different epochs but from a broader perspective a single process can be perceived, lasting less than a thousand years - Eisenstadt's 'Axial Age' (Eisenstadt 1982). In spite of these variations, the underlying implicate order is consistent and exhibits a pattern of attractor dissolution and transformation in which 1) attractor instabilities at the core are augmented by incoming trajectories from the periphery, 2) the core finally passes the critical point and dissolves, but 3) by this time migrations from the periphery have interacted synergetically with residual elements of the core to initiate a trajectory group forming the basis of a new attractor (Ruelle 1982, 1989; Rosser 1991; Guastello 1995 pp.368-94). While the *canonical* form of the affiliation model (the one presented here) is defined by the transition from the Roman Empire to the Middle Ages, other metacultural variants clearly display the same underlying dynamic. Comparison of each metacultural trajectory clearly illustrates the interplay between deep structural stability and surface variance.

Chapter 8: The Decoding of Cultural Forms

8.1. Introduction.

It is through the analysis of what Kroeber calls 'configurations of culture growth' (Kroeber 1944) and the forms of cultural expression prevailing in a given historical context, society or epoch that we may access the psychohistorical 'substrate' for a specific event or historical personage. This substrate will provide indications as to 1) the way in which phases of the perinatal matrix have become symbolised and expanded fractally through the more complex configurations of that cultural form, 2) the typology and stratification of archetypal morphologies (ch.7) embedded in the dominant constructs of that society or epoch and 3) what the state of that cultural form can tell us about the evolutionary phase of the society at that point.

Our strategy in this chapter will be to present brief overviews of four cultural domains, concentrating on the way aspects of each domain illustrate one of the three principles listed above, i.e. expansion of the perinatal matrix, the embedding of morphologies and stage of evolution reached by the culture in question - in this case, the Euroamerican west. First, in the domain of myth and literature, we will explore the fractal expansion of the perinatal matrix in the Middle-Earth mythic cycle of J.J.R. Tolkien (*The Silmarillion, The Hobbit* and *The Lord of the Rings* (LOTR)). Secondly, we will show how archetypal morphologies are embedded in the structures of Western 'classical' music through a brief illustration of the layer-analytic methods developed by the Viennese theoretician and contemporary of Freud, Heinrich Schenker (1868-1935). The third overview will show how external stage design and modes of dramatic presentation in Greek and Roman theatre reflect phases in the rise, evolution and fall of the Hellenistic epoch of Metaculture IV (Europe and the Mediterranean). Following this, we show how what is now known as the *Stendahl Syndrome* in the visual arts suggests the presence of archetypal morphologies not intentionally created by the artist.

8.2. Fractal expansions of the perinatal matrix in the Middle-Earth mythic cycle.

The *Lord of the Rings* cycle evolved from Tolkien's private mythic universe, and in seeking to deal with his deepest psychological concerns by externalising this universe, he showed that these concerns were also shared by many of his time, place and culture. As Erikson pointed out, it is the function of certain individuals, whether in the political or creative sphere, to resolve private conflict in a manner that proves beneficial to society at large. They are the shamans of their age. In seeking to resolve his own psychic conflicts, Tolkien also solved those of the many, like Martin Luther in his own epoch "*solving for all what he could not solve for himself alone*" (Erikson 1958 p.67).

The chronological order of composition of the Middle-Earth mythic cycle differs from the order of publication. The publication order of the three main sections of the myth - *The Hobbit* (*H*), *The Lord of the Rings* (*LOTR*) and *The Silmarillion* (*SM*), represent an expansion of domain from the small and intimate (*H*), through the 'medium range' (*LOTR*) to the global (*SM*) - i.e. from childhood, through adolescence to adulthood, which is also the order in which the cycle has been read by most readers. The order of

composition ran in terms of the cycle's history - *SM, H* and *LOTR*, but the genesis and crystallisation of the myth in terms of Tolkien's lifetime is so complex and multistranded that the final *order* of composition is not biographically significant. Space forbids any relating of the evolution of the many components of the cycle to significant periods in Tolkien's development. What is most important here is the manner in which the perinatal matrix - the deepest core of all shared trauma - is *fractally expanded* throughout the cycle at many levels.

Fig. 8.1 below is a *psychogeographical map* showing the most important transitional events in *SM* together with a table (Table 8.1) mapping these events onto key symbols of uterine ecology. A psychogeographical map is a simplified schematic version of a true map, intended to reveal the psychoanalytic meaning underlying the surface geography of imaginary worlds. Geographic precision is absent therefore, and distances are relative. In this and the following psychogeographical maps, the bilaterality of hemispheric function expressed in the compass indications should not be interpreted as being universally applicable. Such functions do, however, seem clearly apparent in the psychogeography of Middle-Earth, as does the Euroamerican bias of "north = up" and "south = down".

Perinatal sequences move in two directions - from the state of intrauterine stasis towards the outer world (e.g. from Valinor to Middle-Earth) and from the outer world back towards the womb. As the cycle moves from *SM* through *H* to *LOTR*, the original womb-world (Valinor) becomes more and more distant and inaccessible. Nevertheless, it finally absorbs key 'non-human' actors and members of the ring Fellowship. Not all sequences appearing in the tables are shown in these maps, nor do the tables list all sequences - as in any holograph, there are too many 'micro-images'. Fig. 8.3 and Table 8.2 focus on the landscape of *The Hobbit*. While a psychogeography of the Shire alone would be revealing in itself, space permits only a general summary of the major sequences in the book.

The psychogeography of Middle-Earth parallels the ecology of the womb at many levels. The most archaic substrate is the planetary-scale site of the great creation drama in *SM*. Here *Valinor* is the place of intrauterine stasis (the Undying Lands to which all return), the Great Sea (*Belegaer*) is the birth canal - the path of transition - while *Beleriand* and the lands of Middle-Earth mark the place of emergence after birth. Within Middle-Earth itself, other formations acquire the symbolism of uterine ecology as more localised subplots develop: the *Hithæglir* or Misty Mountains and other mountain ranges such as those encircling Mordor (the *Ered Lithui* and *Ephel Dúath* in *LOTR*) become the birth canal in key transitional sequences of both *SM* and *LOTR* (Tables 10.1-3). The Sea of *Helcar* and the mere of *Cuiviénen* mark the watery womb of the Elves in *SM* while the *Helcaraxë* (Grinding Ice) mark the tortuous passage through the birth canal for Fingolfin during his flight from Valinor. The placing of Towers, as sea or land beacons both within and across continents in SM and LOTR mark placental symbols in the style of the 'omphalos', both good (Taniquetil, Vinyamar, the Meneltarma and Minas Tirith - the White Tower of *LOTR*) and evil (Orthanc, Minas Morgul, Barad-Dûr - the Dark Tower of *LOTR*). Originally linked through the 'seeing-stones' or *palantíri*, they represent what was formerly a single 'all-seeing eye'.
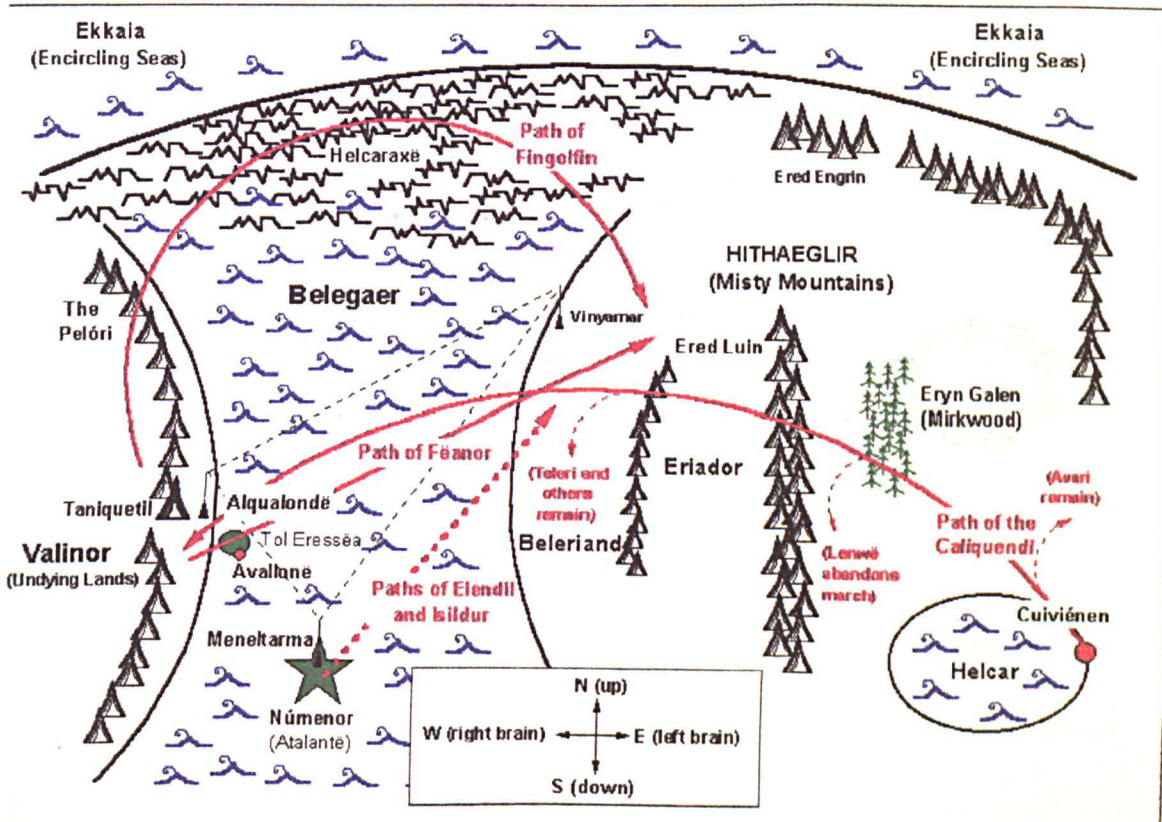
Fig. 8.1: Major Transitional Journeys in **The Silmarillion**

Fetal Image	Uterine Symbol	Birth canal passage	Place of emergence
The Caliquendi	The Mere of Cuiviénen	The Hithœglir (Misty Mountains)	Middle-Earth
"	Beleriand	The Sea of Belegaer	Valinor
The Noldor	Valinor	The Helcaraxë	Middle-Earth
Eärendil	Gondolin	(caesarian section)	Nan -Tathren Vingilot
Elendil & Isildur	Atalantë (Númenor)	War with the Valar	Middle-Earth

Table 8.1: Some Major Perinatal Sequences in **The Silmarillion**

The forests of Middle-Earth also represent placental symbols both 'good' (Lórien, Fangorn) and 'evil' (The Old Forest, Mirkwood (= the dark ('mirk/murk' wood)). Spiders, such as those of Mirkwood in *H* or Shelob in *LOTR* become poisonous symbols of placental degeneration. The geographical structure of *Númenor* (*Atalantë* > 'Atlantis') is placental in a unique sense - both star-shaped and bearing the 'omphalos' (the *Meneltarma*). The destruction of Númenor as related in the *Akallabêth* (SM) marks one of the most catastrophic perinatal sequences in the entire cycle. The outer Sea (*Ekkaia*) together with the Void of Space which 'flesh unaided cannot endure' (*Ilmen* - not shown) form the Abyss or *Ginnunga-Gap* of Scandinavian legend.
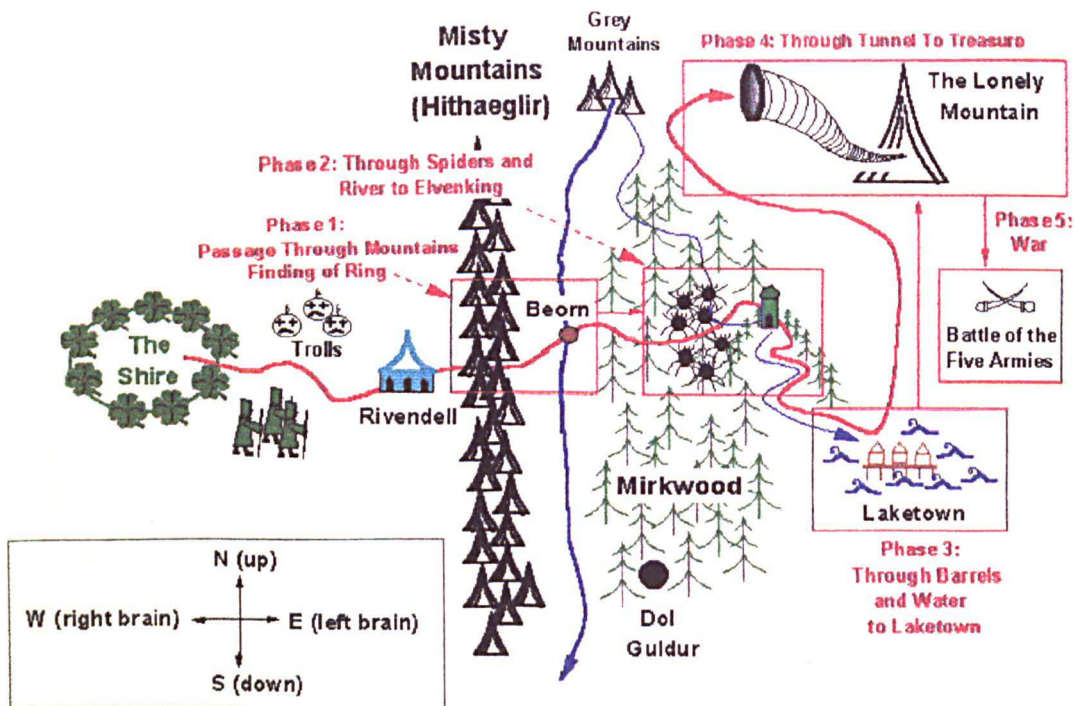
Fig. 8.2: Major Transitional Events in The Hobbit.

Fetal Image	Uterine Symbol	Birth canal passage	Place of emergence
Bilbo	Rivendell	The Misty Mountains	Finding of the Ring The Hall of Beorn
"	Mirkwood	The Spiders	Home of Thranduil
"	Home of Thranduil	Barrels on the Forest River	Esgaroth (Laketown)
"	Esgaroth (Laketown)	The Tunnel of the Lonely Mountain	The Treasure → Esgaroth
Bilbo and the Dwarves	Esgaroth (Laketown)	The Battle of the Five Armies	Rivendell → The Shire

Table 8.2: Some Holographic Perinatal Sequences in The Hobbit.

Although the writing of the entire cycle did not follow a predetermined sequence in Tolkien's vision, the completion and publication of *H* did precede that of *LOTR* so that elements of the psychogeographical landscape of *H* clearly expanded in *LOTR* as follows:

The Lonely Mountain → Mount Doom
The Tunnel → The *Sammath Naur* (the 'Chambers of Fire')
Mirkwood → The Old Forest (ambivalent relationship with Fangorn)
Home of Thranduil → Lórien
The Spiders of Mirkwood → Shelob.
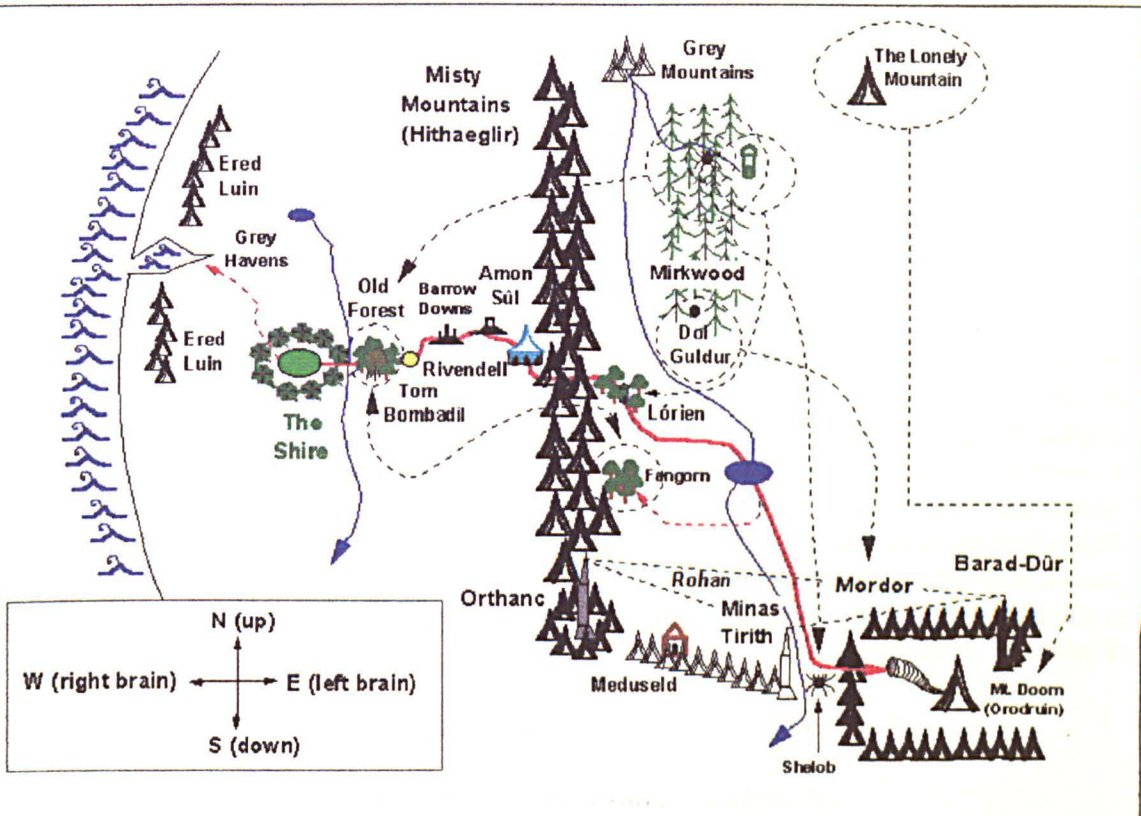
Fig. 8.3: *Transformation of the Psychogeographical Landscape of* The Hobbit *into that of* The Lord of the Rings.

Fetal Image	Uterine Symbol	Birth canal passage	Place of emergence
The Hobbits	The Old Forest	Old Man Willow	The House of Tom Bombadil
"	The Barrow	(caesarian section)	Bree
The Fellowship of the Ring	The Gates of Moria and the Watcher	The Bridge of Khazad-Dûm and the Balrog	Lórien
Frodo and Sam	Amon Hen	The Crossing of Anduin	Amon Lhaw and the Land of Shadow
"	Mount Doom	The Sammath Naur	Minas Tirith
The Forces of the West	The Pelennor Fields	War with the Nazgûl	Victory and Final Peace

Table 8.3: *Some Critical Perinatal Sequences in* The Lord of the Rings.

In the Middle-Earth cycle humans are only one of a group of intelligent species - and by no means the most intelligent. Throughout the cycle humanity in is still in childhood. This is consistent with the fact that private mythologies normally evolve up to and including the end of latency prior to the formation of an adult personality. Unresolved issues therefore persist (as is also the case in group myth in relation to civilisational cycles), so that sexuality in *SM, H* and *LOTR* is adolescent, idealised, virginal and non-physical.

Why does the continuing popularity of the Middle-Earth cycle since its composition over the course of the 20th century provoke so much controversy among the 'literati' today? To answer this question it is necessary to examine the relationship between canonical language, metaphor and myth.

Canonical language arises through the semantic structuring and fixing of primary memes communicated through perinatal and early childhood experience within a coherent system, permitting the resolution of intrapsychic conflict in terms of the dominant defensive construct of the culture. Peter Stromberg, in his analysis of the function of canonical language in resolving intrapsychic conflict, defines the dynamic, interactive relationship between the *canonical, referential* and *constitutive* domains of language[1], pointing out that it is through the *"implicitly ambivalent structuring of metaphor"* in the canonical domain that memetic structures embedded beneath the surface syntax can reach through the domain of the referential to acquire specific, context-dependent meaning within the experiential framework of a wide spectrum of different personality-types (Stromberg 1993 pp.6-16). The relation between canonicity and metaphor, and the process through which both canonical language and metaphor enter the domain of lived experience is shown as follows:

$$\text{Canonicity} = \text{referential} \rightarrow \text{constitutive}$$
$$\updownarrow$$
$$\text{Metaphor} = \text{constitutive} \rightarrow \text{referential}$$
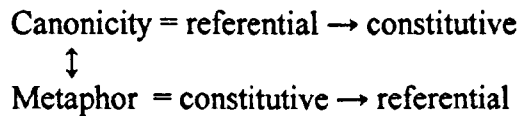
The properties of canonical language that enable such multiple referencing and re-interpretation are located within its deeper *rhetorical* structures. These are *devices* by means of which metaphors and the memetic structures they convey are communicated subliminally through the text. A study by Fr. John Breck identifies one of these devices as *chiasmus* (adj. *chiastic* > Gk. χιάζειν 'to mark with crossed lines' - also termed thus because it can be represented by the letter chi (χ)). Chiasmus essentially involves ' a variety of different patterns whose common denominator is symmetrical structure involving some form of inversion' - e.g. of the form A:B:B':A' or A:B:C:B':A' (Breck 1994 p.17). Fr. Breck gives a very simple example from the First Letter of John (I John 4: 7-8):

A: for *love* is of *God*,
    B: and everyone who loves is born of God and knows God.
    B': The one who does not love does not know God,
A': for *God* is *love.*

Fr. Breck goes on to stress that '*authentic chiasmus produces balanced statements, in direct, inverted or antithetical parallelism, constructed symmetrically about a central idea*' (*ibid.* p.18). Chiasmus is therefore a central device in all 'sacred' texts and the hypnotic trance[2] induced by chiastic structures in a ritual setting goes far in explaining

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[1] *Referential* language contains the corpus of signifiers containing a core of agreed meanings which language users draw upon to apply to specific contexts in the *constitutive* domain.
[2] The degree of an individual's susceptibility to hypnosis correlates strongly with the depth of personal traumatisation (Berghold 1991).

the catalytic effect of prophecy in history (Brueggemann 2000 pp.35-44). Chiastic devices are not confined to biblical texts - they are commonly found in religious, mythic and epic poetry, even up to the present day. It is one of the basic techniques employed in the Welsh *cynghannedd* tradition of epic verse and Fr. Breck has actually identified chiastic structures in modern American journalism (Breck *op.cit.* pp. 325-29). While the device involves a higher degree of structuring of internal and external rhyme, cadence and syllabification in the original biblical languages - Hebrew, Aramaic and Greek - the main point about chiasmus is its structuring of *ideas* - i.e. meme-complexes. Thus *even in translation* it retains its power to hypnotise while permitting a higher degree of symbol re-assignment and re-interpretation. Chiastic devices activate the archetypal morphologies contained in canonical meme-complexes and the simplest forms of chiastic inversion correspond to the most basic, culturally ubiquitous bipolar morphologies modelled by the 'cusp' catastrophe manifold discussed in ch.7 (A_3). The effect of a chiastic device is to use canonical language to 'drive' a metaphor or image through the unconscious and elicit an appropriate response in the same manner as the 'pentad' of social trance induction shown in ch.7 (Fig. 7.16 (a) and (b)). This pentad is shown once again below to clarify the χ-type dynamic involved in chiastic induction:
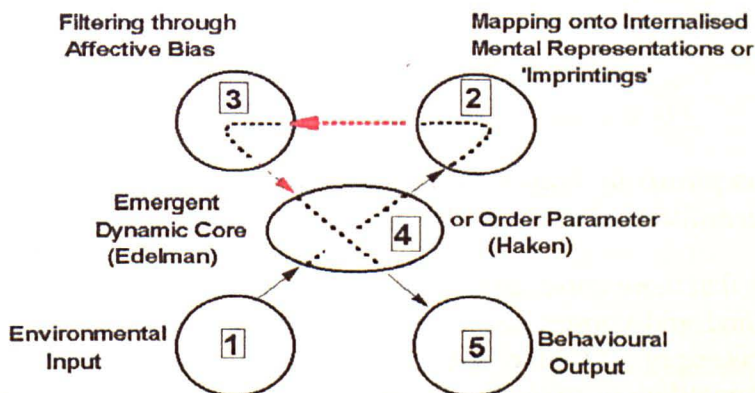

Fig. 8.5: Chiastic devices reinforce behaviour by mapping and filtering metaphor-based images through the unconscious.

Myth is always expressed using language that has 'canonical' significance for the listener. Chiastic and other rhetorical devices built into narrative structures serve both as mnemonic aids and a means of reinforcing metaphoric signifiers at the deepest level. By means of these devices, a listener will draw on the referential meanings contained within the canonical structures expressed by the myths of a given culture and invest them with constitutive significance in terms of her/his own personal life. Writing of the self-transformative process involved in the Christian conversion narrative, Stromberg asserts that "*as the canonical becomes constitutive, aspects of religious symbolism come to be real for believers. And as the metaphoric becomes referential, heretofore mysterious behaviours come to be replaced by religious convictions*" (*op.cit.* p.14). Myth therefore

serves the function of social adaptation and 'character-building' in terms of the dominant defensive construct. As Bryce-Boyer observes in his study of Chiricahua and Mescalero Apache folklore "*folklore, art and religion are institutionalised instruments which bolster the social adaptation ordinarily made possible by the nightly abrogation of instinctual renunciation in the dream. In the genesis of myth, for both individual and group, only a kernel of realistic experience is needed. The revision or falsification of the past and its heroes by the group serves the purpose of defence, adaptation and instinctual gratification by the group and its individual constituents; it also serves in character-building*" (Bryce-Boyer 1979 p.26).

But what happens as a culture evolves away from its mythic origins? Hayden White cites Giambattista Vico in his discussion of how in historiography, drama and literature, a *metamorphosis of tropes* can be observed, that passes through the sequence; *metaphor → metonym → synecdoche → irony* depending both on the subjective state of the writer and the evolutionary phase of a society at a given moment (White 1973 p. 310 n. 42 citing Vico (1744) paragraphs 400-410 and 443-46). The following table shows how White correlates tropic evolution with interpretative modes, political ideologies and narrative modes.

Trope	Interpretative Method	Political Ideology	Narrative Mode
Metaphor	Idiographic	Anarchist	Romance
Metonym	Mechanist	Radical	Tragedy
Synecdoche	Organicist	Conservative	Comedy
Irony	Contextualist	Liberal	Satire

Table 8.4: Metamorphosis of Tropes Correlated with Interpretative Methods, Political Ideologies and Narrative Modes

White stresses that these correlations are not always exact, that a historian's ideology, interpretative method and chosen narrative mode may frequently shift and come into conflict over the course of a lifetime. Vico nevertheless maintains that the correlation is generally sound. According to Vico, these tropic devices predominate at certain stages of a society's evolution - *metaphor* at the earliest, mythic stage, *metonym* as the dominant defensive construct matures, synecdoche after the defensive construct begins to break down and irony during the phase of the universal state - Spengler's 'cultural winter'. Metaphor is the purest form of projective identification, and the gradual metamorphosis of tropic devices over time reflects the increasing abstraction of language in response to growing instabilities in the dominant construct and its final breakdown.

We have said that an axial conflict is a symptom of the closure of the psychological sources of creativity for the society in question. Following an axial conflict, art is no longer a means but an end in itself - the tendency thereafter is towards closure of the canon and the use of literature as a means of intensifying power structures. Late cultural phases generally witness a transition to irony and satire as dominant modes, satire being the last bastion of intrapsychic defence. The canonical language, metaphorical images and chiastic devices that figure so prominently in the plot-structures, narrative segments and verse modes of the Middle-Earth cycle recall the 'dawn' of Euroamerican civilisation

and therefore serve only to antagonise those of the 'twilight' phase who see themselves as 'guardians' of a literary tradition whose primary function has become that of containment.

8.3. Archetypal morphologies as expressed though musical form

Music and the pictorial arts move away from the concrete, semantically-fixed expression of archetypal morphologies and into the domain where these morphologies are still preverbal and are therefore linked more directly with the global, experiential core of morphogenesis and impingement. Certain techniques in the field of composition and analysis - those of so-called 'layer analysis' - strongly suggest an analytical approach similar to that undertaken with respect to language in ch.7 and section 8.2 above. This approach has strong congruences with the psychoanalytic method. Layer analysis was developed by a contemporary of Freud, Heinrich Schenker, who was also based in Vienna. Especially striking are the similarities in analytical method applied by both Freud and Schenker within their respective domains, similarities which were later remarked upon by Schenker's pupil, Felix Salzer.

The core of Schenkerian theory shows how mental prototypes shape musical perception - how the deployment of basic triadic chord structures enable the listener to sustain these basic structures in background memory, relating them to the complex flows of musical eventuation in the immediate foreground. Schenkerian theory is therefore congruent with psycholinguistic concepts of deep structure and with the most advanced theories of perception and cognition. Although it may be argued that Schenkerian 'layer analysis' deals primarily with cognitive structures, it is the limitless variation in the expansion, unfolding and articulation of fundamental 'deep structures' through the techniques of prolongation in voice-leading, as well as surface elaboration of the ambivalence between dissonance and resolution arising from harmonic and contrapuntal rhythm, that elicit affective responses from the listener at 'pre-verbal' levels, where the residual archetypes of early experience remain fluid and autonomous at the level of the preconscious and have not yet become semantically fixed through socialisation. It is the controlled expression of these structures through training within the constraints of a consensual musical 'grammar' that form the basis of 'musical intelligence'.

Although Schenker himself made no explicit reference to Freudian theory, his pupil Felix Salzer definitely had Freudian analysis in mind when he declared that "*the same conception* (the elaboration of basic structure - author's note) *is also an essential element of psychology. Psychology does not explain the actions, characteristics or problems of a person on the basis of 'visible' symptoms. It achieves results through penetration into the deep-rooted, unconscious, often long past cause of all the symptoms a person presents. In the coherence between the basic cause and the actual, visible facts - or in our terms, in the coherence between the structure and its prolongations - lies the explanation of a person's character*" (Salzer, 1962 p. 29). A Schenkerian 'layer analysis' has three structural levels ('Schichten') which may be considered analogous to Freud's concepts of 'unconscious - preconscious -conscious', but *not* with those of Id, Ego and Superego. Fig. 8.6 is not a form of musical notation but an 'eventuation diagram' giving a visual image of these levels and the relationship between them - *background* ('Hintergrund'),

middleground ('Mittelgrund') and *foreground* ('Vordergrund'). Like the Freudian unconscious, preconscious and conscious, these levels are not clearly demarcated in function but are closely interconnected, by analogy with the neural group selection diagrams shown in Fig. 7.7 of the previous chapter. The background contains an 'embedding' of the fundamental structure or *Ursatz*, expressed *harmonically* as the progression I - V - I and *linearly* as the melodic sequence or *Urlinie:* 3 - 2 - 1.
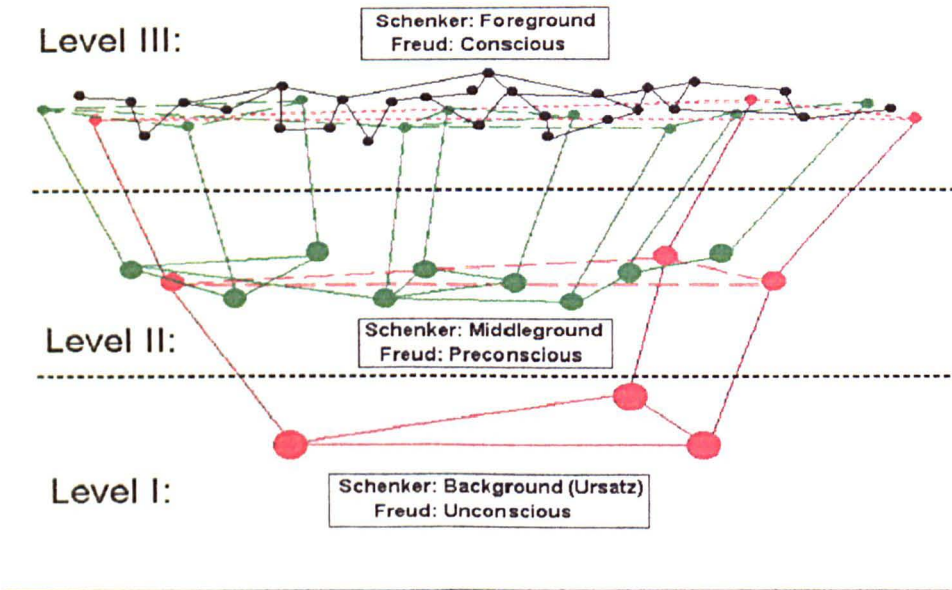

Fig. 8.6: Levels of Layer Analysis and the Emergence of the Dynamic Unconscious

To illustrate the analytical procedure we will take the example of a Bach Chorale, *Wer nur den lieben Gott lässt walten* ('If thou wouldst but suffer God to Guide thee'). This chorale was chosen because there exist a series of short chorale preludes for organ based on it. These preludes are of increasing complexity and illustrate very clearly the build-up of successive unfoldings, texture and variance over the simple 'fundamental structure' or Ursatz. The chorale exists, not in its original harmonisation, but with Bach's 'figured bass'. This notation gives a numerical coding for the various chord functions that a performer would improvise upon. To begin with therefore, we will present the melody of the chorale together with the figured bass, followed by a harmonisation of this figured bass by the present author. We will then do a brief 'layer analysis' of the harmonised chorale in order to show the various levels or *Schichten*, which will be colour-coded for easier visual recognition on the basis of Fig. 8.6 above. We will then present each prelude in order of increasing complexity, embedding each level within the compositions according to the colour codes. The following abbreviations are used in the analyses: *3pg* = 'progression through a third', *4pg* = 'progression through a fourth', *pr* or *prol.* = 'prolongation' or 'unfolding' ('Ausfaltung'), *arp.* = 'arpeggiation', *NN* = 'neighbour note', *NC* = 'neighbour chord', *cs* = 'consonant skip', *appV* = 'applied dominant'.

Chorale: Wer nur den lieben Gott lässt walten

Figured Bass (original)
and Harmonisation (by the Author)
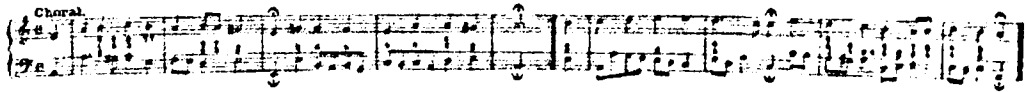
a) Figured Bass Original
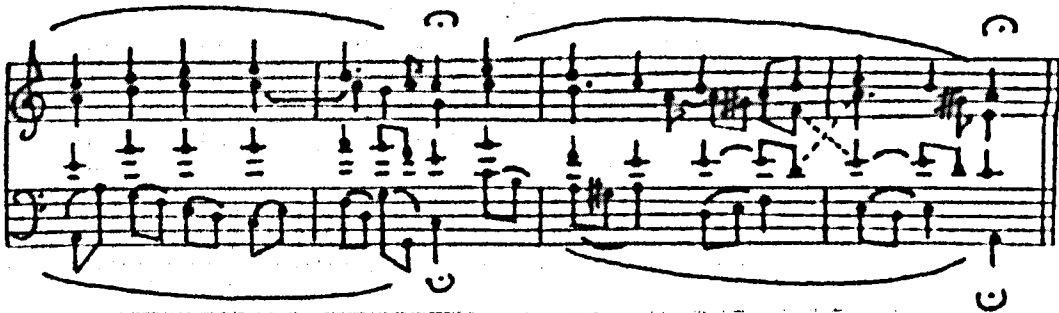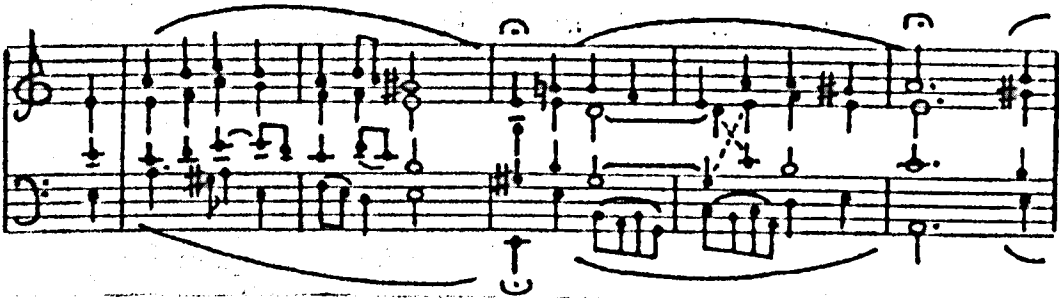
b) Chorale Harmonisation

Fig. 8.7: Figured Bass and Harmonisation of the Chorale Wer nur den lieben Gott lässt walten *('If Thou wouldst but suffer God to Guide Thee').*

Chorale: Wer nur den lieben Gott lässt walten

1. Ursatz (Background):

2. Transition from Ursatz (Background) to Middleground:

Fig. 8.8: The Fundamental Structure or Ursatz (Background), Together with a Transitional Level from Ursatz to Middleground.

The transitional level is shown simply to give an initial idea of the embedding of the Ursatz within the next level (middleground). The *Ursatz* refers to the chordal progression I - V - I while the *Urlinie* is the linear sequence of figures: 3 - 2 - 1, referring to the melodic line.

Chorale: Wer nur den lieben Gott lässt walten

3. Middleground:

Fig. 8.9: Middleground

(with embedding of the Ursatz shown in red).

Chorale: Wer nur den lieben Gott lässt walten

4: Foreground:

Ursatz: I

(Middleground)

Fig. 8.10: Foregound

(with Ursatz shown in red, middleground in green)

Wer nur den lieben Gott lässt walten:

Chorale (Figured Bass) and Prelude I:

a) Figured Bass Original

b) Chorale I

Fig. 8.11: Chorale Prelude I on **Wer nur den lieben Gott lässt walten**

(*Orgelbüchlein* No.54)

(Embeddings of Ursatz and middleground of the Chorale shown in red and green)

Wer nur den lieben Gott lässt walten

Choral Prelude II:

Fig. 8.12: *Chorale Prelude II on* Wer nur den lieben Gott lässt walten

(*Orgelbüchlein* No.54)

(Embeddings of Ursatz and middleground of the Chorale shown in red and green)

Wer nur den lieben Gott lässt walten

Chorale Prelude III:

Fig. 8.13: *Chorale Prelude III (variant) on* **Wer nur den lieben Gott lässt walten**

(*Orgelbüchlein* No.54)

(Embeddings of Ursatz and middleground of the Chorale shown in red and green)

Schenker's theories were developed specifically in relation to the music of the 18th and 19th centuries - the period where the diatonic system had reached its greatest elaboration and coherence and when the relationship between form and content was generic. The genericity of this 'shared' musical language during the 18th and 19th centuries accounts in part for the precocity of such individuals as Mozart (and later, Mendelssohn). The diversity and 'decoherence' of musical language at the present time makes the unambiguous acquisition of a single, highly-developed musical language far more difficult. The *Ursatz* as a fundamental structure evolved gradually in historical time. These are the main phases in its rise, evolution and disintegration:

1) The earliest era of *monophony* or chant in unison. Gregorian chant employed *6 Church modes* whose nomenclature resembles those of Greek scales, although their structure is different

2) Introduction of the *Ison* or sustained underlying note as a means of establishing unity - already in use in Byzantium at least from the 8th century and used in the West from the 10th century on.

3) The growth of *organum* or parallel motion in consonant intervals from the 11th century.

4) *Chord prolongation and function* leading to *contrary motion* in 12th Century polyphony. The techniques of *cantus firmus* and *isorhythm* develop from the 12-15th centuries as a basis of coherence in extended compositions.

5) *Coalescence of modes*: through the use of *musica ficta* (the writing of 'accidentals' in order to smooth the vocal line) two of the Church modes, the Ionian and Aeolian modes gradually coalesce to create the major-minor (diatonic) system. Due to natural tuning and the logic of vocal motion, diatonic ambivalence is still evident in compositions of this era (15th-17th centuries). The evident 'dissonances' of this period were less apparent due to the 'natural' tuning system (still evident in string and vocal works).

6) Rise of the clavichord and equal-tempered tunings (Bach 48 - *Wohltempierte Clavier*) lead to stabilisation of the diatonic system.

7) 'Classical' era of diatonic grammar: 18-19th centuries.

8) Late 19th - early 20th century: chord prolongation is gradually expanded to the point of decoherence. In 'expressionist' composition, extensive prolongation of harmonic function, the tonicisation of more remote harmonies and the attenuation of their expected resolution destabilise the structural foundations of diatonic grammar.

9) Atonality: the works of the New Viennese School (Schönberg, Berg and Webern) from 1910 onwards saw the dissolution of harmonic function. Compositional coherence is sought through the temporary combination of small sets (less than 6 elements) by association (trichords, tetrachords, pentachords).

10) The new *cantus firmus*: serialism or 12-tone composition in which coherence is sought by such devices as trichordal, tetrachordal and above all, hexachordal combinatoriality (various combinations of set transpositions that express the total chromatic), multiple order function and the development of new set transforms.

11) New expressions of tonal ambivalence emerge in popular music - especially jazz *and the blues, where the 'blue note'* acts as a compromise between major and minor tonalities.

12) Rock and 'heavy metal': the return to primitive modality.

These stages of evolution can be mapped onto the overall psychospeciation sequence discussed in ch.6.9. A significant degree of correlation can be observed, as is shown in Fig. 8.14 below:
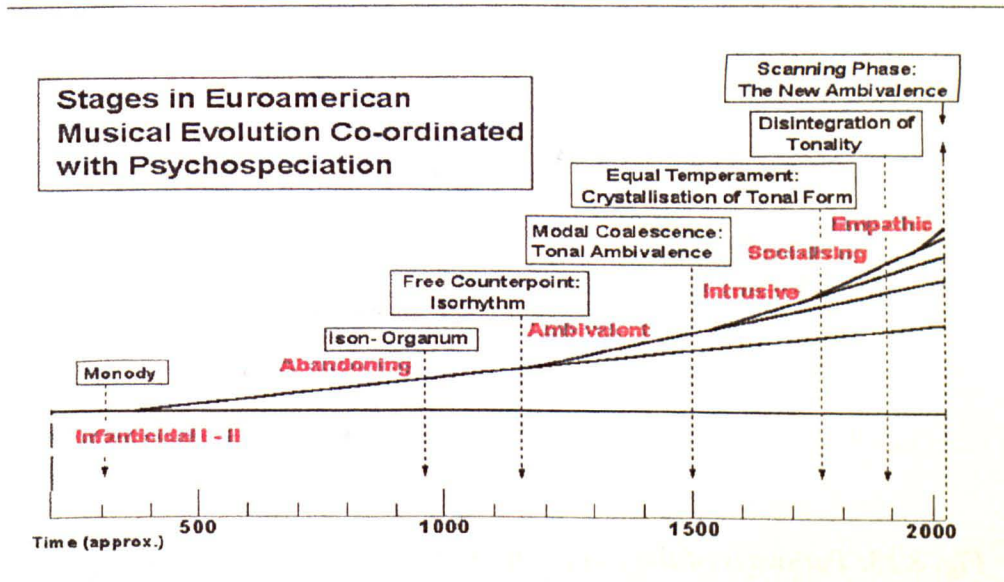

Fig. 8.14: Correlation of Stages in the Evolution of Diatonic Grammar with Psychospeciation Modes.

From this it can be seen how the evolution of a single art form can reflect the progress of a cultural cycle. Schenkerian layer analysis can help us understand this evolution in the case of music. The fact that the breakdown of tonality preceded WWI shows that the 'axial conflict' that terminates a civilisation's creativity is a symptom of civilisational breakdown rather than its cause. Contemporary diversity in musical creativity is in fact a form of 'scanning behaviour' (Tainter 1988) representing the impoverishment of structure that is the consequence of the decoherence and breakdown of diatonicism as a culturally shared source of creativity.

Layer analysis can be studied from the perspective of catastrophe-theoretic semantics, for it is through music, as we have said, that contact is established with the most primal of archetypal morphologies prior to their verbalisation and semantic fixing through socialisation.. Fundamental structures of the *Ursatz* are therefore related to those archetypal manifolds representing both the closure of the perinatal matrix and the opening of possibilities for compromise (the purpose of cultural activity). If the fundamental *Ursatz* represented by the progression I - V - I can therefore be expressed in terms of the cusp (A_3) the 'prolonged' version of the Ursatz - I - IV - V - I - can be represented by the butterfly (A_5) as shown in Fig. 8.15. More complex manifolds can be

detected in the series of unfoldings and prolongations from background to foreground levels.
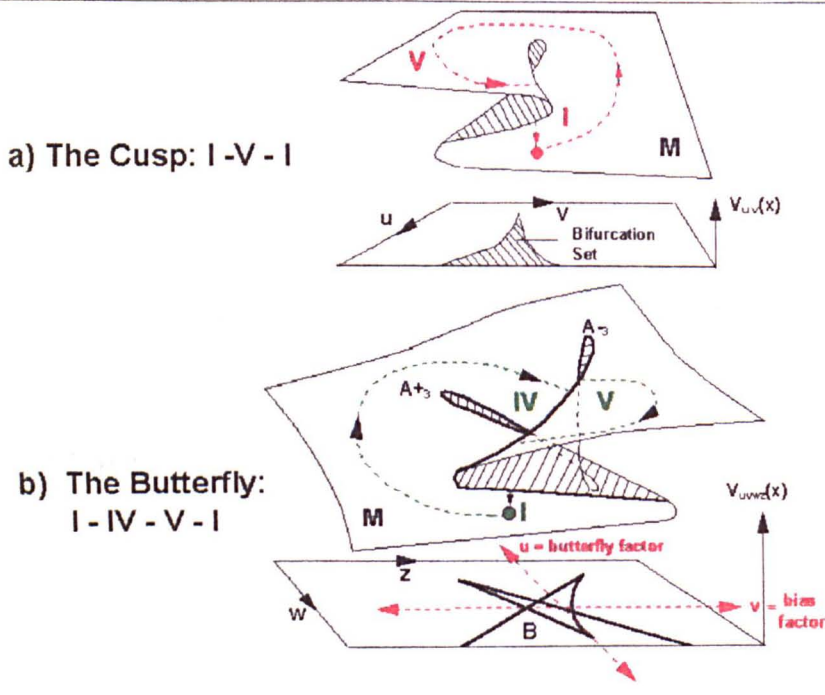

a) The Cusp: I - V - I

b) The Butterfly: I - IV - V - I

Fig. 8.15: Pathways of the Ursatz through the A_3 and A_5 Manifolds.

8.4. The evolution of Greco-Roman civilisation as reflected in theatrical architecture.

Archaeological remains are an important source of psychohistorical evidence, but such remains are often sparse and incomplete. Evidence derived from archaeological sources is therefore often suggestive rather than conclusive and requires correlation with other sources, both literary and historical. Nevertheless, by the circumspect application of theory gained through the study of more recent psychohistory, and by comparing fragments of the past with whatever related traditions may survive to the present day, an inferred reconstruction, however limited, of the inner experience of past epochs may be attempted. In the case of Greco-Roman theatre, archaeological sites, dramatic forms and extant literary remains provide a rich field of evidence. Discussion of theatrical forms prior to the construction of these remains is of necessity hypothetical, but through the comparative study of primitive rituals and festivities that still survive in rural Greece, Southern Italy, and the Balkans, and by comparing them with the anthropological knowledge of contemporary societies that have only recently emerged from a hunting-gathering economy (such as certain North American Native groups), such an inferred reconstruction is at the very least, plausible. The following discussion is based on investigations carried out in these regions by the present author, as well as the history of theatrical architecture undertaken by Dégaine (1999).
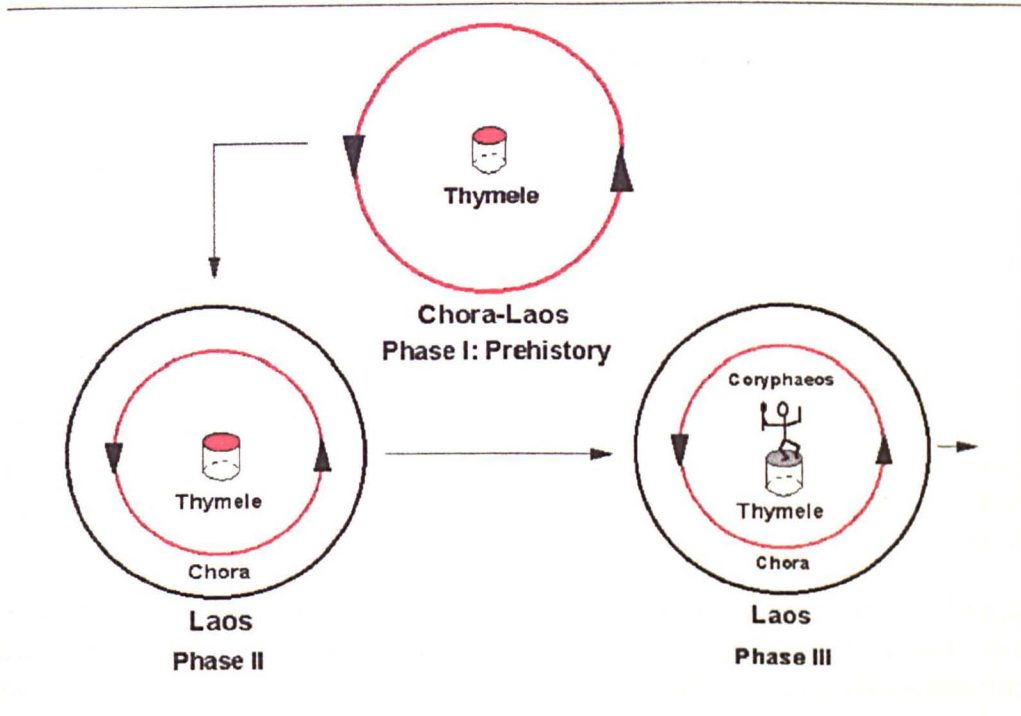
Fig. 8.16: The Evolution of Greek Theatre. Phases I - III: from the Prototribal Era to the Mycenaean Thalassocracy.

The precise rubrics of Greek Theatre evolved from the swirling chaos of prehistory (Dégaine 1999). This chaos was expressed as the vortex of a shared *social trance* - the essence of totemic ritual (Freud 1913). Participants in these ceremonies would assemble at a sacred dance ground formerly marked by an *omphalos* - a placental symbol that signified the centre of the tribal universe - the Earth as Maternal Body (deMause 1982). Eventually a *thymele* or altar sacred to the god Dionysus was erected on this spot (Arnott 1971). Here the participants would celebrate that most sacred of totemic mysteries - the sacrifice of the Suffering God in the form of a *goat* (cf. the English derivation *goat* ↔ *god* and the later Christian depiction of Satan). The god was Dionysus, slain in the form of a totem animal - a symbolic incarnation of the primal father (Freud 1913) whose murder and cannibalisation was re-enacted at fixed times of the year (Badcock 1980). From the Freudian perspective, this 'holy communion' of the participants through the sharing of sacrificial flesh symbolised the renewed internalisation of the 'Law of the Father' and the re-affirmation of tribal taboos - the orgiastic nature of the ceremony temporarily broke all taboos in order to reaffirm them. After the totemic feast the participants, carrying enormous phallic emblems, would process around the *thymele*, singing and chanting the *tragoidia* or 'goat-song' (hence *tragedy*) in a state of wild intoxication. At a deeper level however, the ceremony is a birth re-enactment - the Suffering God is the Suffering Fetus, who must undergo death in order to be reborn among the participants. The collective reigned supreme - personal identity was non-existent, all melted in the swirling mass of the symbolic womb. At times during these ceremonies, donkeys were ridden around the circle. These embryonic forms of future *satire* (*satyra - satyr* > 'donkey') symbolised a fusion of human (upper) and goat (lower).

From the Freudian perspective, this theriomorphic entity would represent union with the Father and appropriation of the latter's procreative powers, but from the perinatal perspective, the animal-human fusion may represent the human relationship with the placenta (deMause 1982). Both interpretations suggest the beginning of a gradual distancing from and increasing mastery of, the raw immediacy of primal trauma.

An inner circle gradually evolved, composed of 40-50 of the more talented dancers. These dancers - the embryonic *Chora* or classical Greek chorus - would improvise while the rest of the populace - the *Laos* or 'laity' - formed a wider circle around them. The improvisations of the *Chora* were then imitated by the *Laos*. We can compare this evolutionary phase with the sacred round dances of the pagan Slavs - the *khorovody* (> *khor* (chorus) and *voditi* (to lead), as well as the specialised warrior dances of North American Native peoples in which the dancers would re-enact past exploits on the battlefield. This phase would therefore correspond to the early Mycenaean or 'heroic' Age of Greek prehistory.

One of the more creative or inspired singers/dancers would ascend the thymele and improvise - the emergence of the *coryphaios* or chorus leader. During the improvisations of the coryphaios all remained still, then the *Chora* would respond to the incantations of the *coryphaios* by turning in one direction or the other. Here we have the emergence of the versification-refrain or *antiphonal* style of performance, accompanied by the expressive movements of the 'cyclical chorus'. This phase would correspond to the latest phase of Mycenaean culture and lasted through the 'Dark Age' that preceded Achaean dominance (c.1100-900 BC). Instead of the projected 'Suffering God' we now have a more explicit emergence of the 'Suffering Fetus' or 'Myth of the Hero' (Freud 1939), marking a distinct advance in individuation and reflecting the beginnings of a transition from what deMause (1972) calls the Early Infanticidal mode of childrearing (Infanticidal I), to the Late Infanticidal (Infanticidal II) - a mode from which Hellenistic Civilisation was ultimately unable to break free (Sagan 1993).

The next phase (IV) saw the creation of the *skene* or *protostage*. A table was placed before the *thymele* and the *coryphaios* would jump on and off (hence It. *saltare in banco* → Fr. *saltimbanque*), gesticulating, reciting in quasi-formal manner or leading the *Chora*. The improvisation of the *coryphaios* gradually became formalised as the *dithyramb*, a hymn of praise to Dionysus which recounted and extolled the god's exploits to the accompaniment of the double pipe or *aulos* (a reed-based relative of the 'Pan-pipe'). Myth and legend now began to crystallise within the context of performance. In this way the archaic psychological conflicts deriving from primal trauma, which had formerly existed as inchoate, archetypal morphologies turbulently expressed through orgiastic 'meltdown' in the totemic phase, steadily became contained within a more secure defensive construct which had evolved in complexity during the long transition from totemic ritual through the rise of the mother goddesses associated with primitive agriculture (Demeter, Athena) to agriculturally-based polytheism (Zeus and the Olympic Pantheon). Through *semantic fixing* these morphologies could now be externalised through projection onto the stage, consciously re-enacted and symbolically mastered. Myth became the poetic expression of ambivalence as well as the means of defence against it (Freud 1939), while theatre had become the primary mode of collective catharsis. Different villages now began to

compete with one another and gain fame in measure of their performance, and myths, mythic versions and legends from various sources began to coalesce to form the classical Greek *theogony* (genesis of the gods) as well as the mythology of the Homeric canon, enshrined in the *Iliad* and the *Odyssey*.
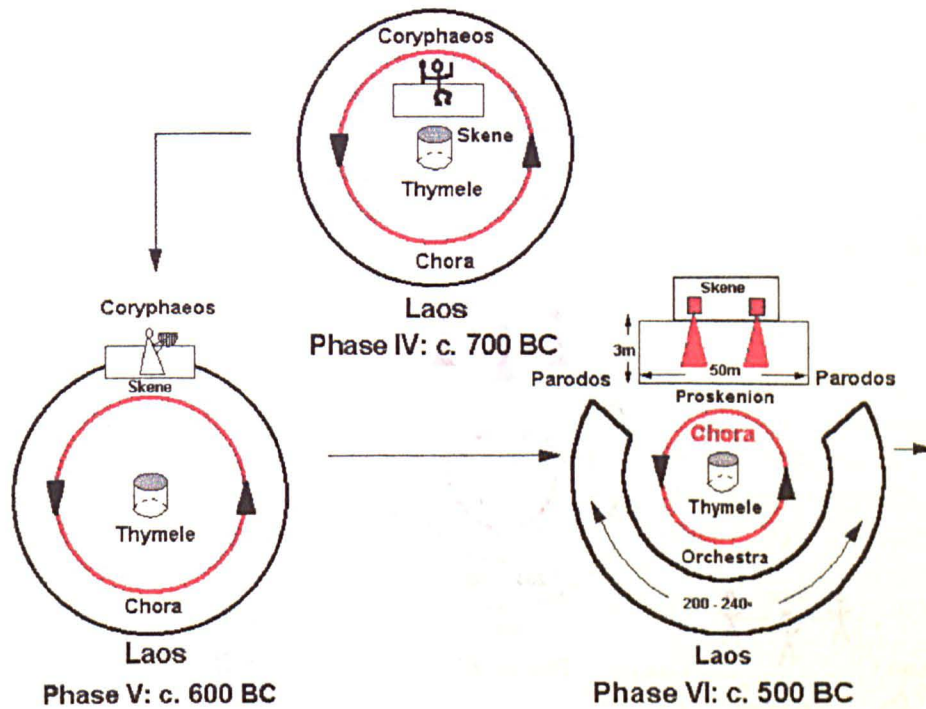

Fig. 8.17: The Evolution of Greek Theatre. Phases IV - VI: from the Mycenaean Thalassocracy to the Athenian Polis.

During this phase, c.600 BC, the table or *skene* began to be placed tangentially to the circle formed by the *Laos*, breaking it and creating what finally became a 240^0 static arc of spectator-participants - the future *theatron* or 'stalls' (the inner circle of the *Chora* still remained dynamic and unbroken). Drama becomes increasingly formalised and elaborate under the influence of the emerging child-god Apollo, whose hymn of praise, the *paian*, stood in opposition to, yet was also complemented by, the Dionysiac *dithyramb*. The instrument accompanying the *paian*, the sparse and ascetic *lyre* (a prototype of the harp, deriving from the bow) both contrasted and combined with, the delirious and fluid sound of the *aulos*. The Child, in the form of Apollo, now seeks to individuate and gain autonomy from the harsh and threatening power of the Parents - an ambivalence which, as we have said, was never satisfactorily resolved on the Greek stage, or indeed ever during the course of later Hellenistic civilisation (Sagan *op.cit.*).

By 500 BC - the time of Aeschylus (c. 525-456 BC) - the final forms of classical Greek Theatre had crystallised. Located preferentially by the side of a hill so as to give a clear view to spectator-participants, the *orchestra* (the ancient dance ground) is surrounded by the 240^0 arc or *hemicycle* of the *theatron* - the place of the *Laos*. The

actors performed on the *proskenion* or platform area before the *skene* (which has now become a more elevated construction showing the setting of the play). The orchestra area was accessed through the *parodoi* on either side of the proskenion. The focal point of the *Chora* is still the *thymele*, now a purely symbolic altar to Dionysus. The number of actors grew during this period from one (who was often the playwright himself) to three - who were all male (as were the members of the *Chora*). The actors wore massive, ornate costumes, thick, elevated *clothurnes* or boots and large grotesque masks that deepened and amplified the voice. Their heavy, ponderous steps, ritualised gestures, intoned declamation, the sombre cadence of the lyre and high-pitched wail of the *aulos* with their microtonal scales, the booming drum and cymbals which marked scenic changes and the formalised movements of the actors - all this evoked a theatrical ambience far closer to the Japanese Nō drama or the Kathakâlî theatre of Kerala (societies at a comparable stage of psychohistorical evolution) than to Broadway or the West End.
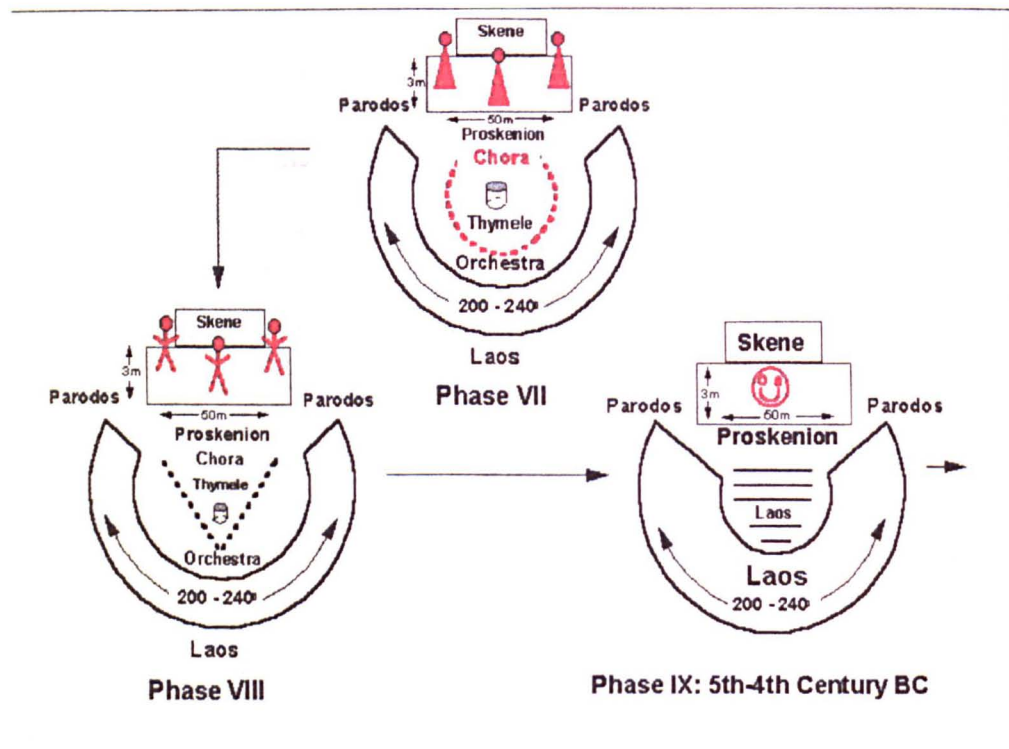
Fig. 8.18: The Evolution of Greek Theatre. Phases VII - IX: from the Athenian Polis to the Peloponnesian War.

The *Laos* were an integral part of performance since drama possessed both religious and cultural significance. The *Chora* played a dominant role, intimately sharing the thoughts of heroes or kings. In the plays of Aeschylus performed at this time (*The Persians, The Oresteia Trilogy, Prometheus, The Suppliants, Seven Against Thebes*), the gods were supreme and individual human actors helpless before their capricious vengeance - parental authority still precluded the effective individuation of the Child. The style of language was archaic, declaimed metrically in a system based on syllabic quantification rather than accent. The dominant grammatical trope was the *metaphor*, in which bodily experience is projected and re-introjected most directly in relation to

external reality. This phase marks the beginning of a remarkable process of condensed transformation spanning scarcely three generations.

During the career of Sophocles (496-406 BC) the *Chora* remains important, but the chorus role is restricted more to that of commentary on the psychological states of the actors rather than direct emotional participation in them. The role of the actor gains in prominence, costumes become less heavy, masks less obscuring, movements more fluid. The actors develop a complex *stichomythic* response structure in dialogue and the grammatical tropes mix *metonym* and *synecdoche* with the psychologically more archaic, purely *metaphorical* forms of expression (Vico 1744; White 1973), suggesting a lessened projection of bodily images onto the external world and an increasing sense of separate identity. The works of Sophocles reflect a dawning realism. Cosmic forces (the internalisation of parental authority) gradually recede and the human individual begins to gain a measure of autonomy - but at a price -that of personalised tragedy. The prolific output of Sophocles includes recognised masterpieces such as *Ajax, Antigone, Electra, Philoctetes* and *Trachiniai*. In *Antigone* the protagonist, daughter of Creon, buries the body of her brother Polyneices against the will of her father and suffers death in consequence - interpersonal loyalties are still helpless in the face of ancestral vengeance. But it was Sophocles' treatment of the Oedipus legend above all that became a prominent element in Western culture. A careful reading of the Sophoclean tragedies *Oedipus Coloneus* and *Oedipus Tyrannus* reveals that they are as much about the traumas of infant abuse, abandonment and loss as they are about unwitting incest and its culturally-ordained punishment (Sagan *op.cit.*). In this study, Sagan shows how the supposed guilt of Oedipus was induced in him by the projected fears of the infanticidal superego of ancient Greek society (*ibid.*). As was stated in ch.1.4, Oedipus *had* to be found guilty and forced to castrate himself both symbolically and retroactively through self-blinding to protect adult infanticidally-based group-defences rooted in the incest taboo. The *induced* guilt of Oedipus in the Sophoclean tragedies is indicative of the general *induction* of the oedipal conflict itself through the *counteroedipal* and *countercannibalistic* tendencies of adults, who project their own childhood fears into their supposedly threatening, but in reality helpless, offspring (Devereux 1980).

Euripides (480-406 BC) is considered the 'chief psychologist' of the 'tragic triumvirate'. During his lifetime, the role of the *Chora* became progressively minimised - the 'group mind' was no longer privy to the thoughts and passions of heroes and kings. Actors gained a greater prominence and their personalities (both as actors and characters) became more individuated. Music became more elaborate, gaining in significance and entertainment value. Dramatic language moved towards the demotic (closer to contemporary speech and dependent upon accent rather than formalised metre) while grammatical tropes now included *irony* - where inner conflicts are given explicit form, 'separated out' and exposed to ridicule. Theatrical 'special effects' became a *sine qua non* of performance, while the *thymele* became a purely perfunctory item, divested of serious religious significance. Realism was paramount and the work of Euripides sought to explore human nature *per se* - free of the tyranny of Olympus, the human spirit was now thrown upon its own resources. This can be seen in Euripides' transformation of the Orestes legend, first presented on the stage by Aeschylus. In the first part of the trilogy by Aeschylus (*Agamemnon*), the murder of Agamemnon by Clytemnestra provokes divine

vengeance and in the second part (*Choephori*) Orestes, aided by his sister Electra, becomes a human instrument of this vengeance, killing both Clytemnestra and her lover, Aegisthos. In the third part (*Eumenides*) Orestes is tried by the gods at the court of the Areopagus in Athens, defended by Apollo and acquitted through the plea of Athena. In Euripides' version however, Orestes, Electra and their cousin/accomplice Pylades are arraigned for murder before a purely human court. In *Medea*, Euripides confronts the issue of infanticide, but the onus of blame for this act is laid not on the perpetrator, but on Medea's lover, Jason and the unfortunate children themselves - in the public sphere, adults still use their power to project their own fear and guilt onto the helpless and impotent (Corti 1998). This phase witnessed the outbreak, course and conclusion of the Peloponnesian War (449-405 BC), the *axial conflict* of Athenian culture, which effectively destroyed further creative potential in the realm of tragedy.

The conclusion of the Peloponnesian War and the gradual absorption of Athens into empire, first Macedonian, then Roman, saw the 'freezing' of the tragic canon. Tragedies were still performed, even written, but they had lost their vital force as a communal exploration of shared experience. Comedy, the last stand of defence against ever-resurgent anxieties, was already gaining in prominence during the 'tragic' era through the works of Aristophanes (c. 446-385 BC) and now became the supreme theatrical art form. In comedy, anxieties are not confronted and 'worked through' as in tragedy, but simply externalised onto the stage and ridiculed. Comedy therefore marks the constraint barrier beyond which no further psychological maturation is possible. In the comic theatre, the *thymele* has disappeared along with the *Chora*, musical performance replaced choral recitation or song, the *skene* becomes a more elaborate construction housing various devices for special effects. The actors wear smaller masks and their number is no longer limited to three. A type of covered stone theatre known as the *odeon* (modelled after the famous building of that name on the Acropolis) began to emerge. Such theatres were reserved for more intimate performances. The comedies of Aristophanes freely ridiculed political and social institutions, as well as the 'classical' tragedians themselves (Euripides was a favourite target for Aristophanes). But although Athenian democratic forms survived the consequences of the Peloponnesian War (Sagan 1991), increasing restriction of free and critical expression was a necessary concomitant of imperial convergence, and the works of the later proponents of New Comedy such as Menander (343-292 BC) tended to avoid risky political statements and focus more and more on purely domestic issues and universal human foibles ('soap opera').

Roman theatrical art largely followed Greek models, and *began* with comedy. Individuation and democracy at Rome never attained the Greek level. Roman history was catalysed at all levels by the exercise of power and the psychodynamics of dominance and submission - so no authentic native tragic canon evolved in which these issues were shared, confronted and explored. No stone theatre was constructed at Rome until the 1st century BC - the first performances took place on makeshift stages erected in the Forum and surrounded by circles of wooden seats. As the role of the Chorus diminished, so the orchestra contracted to a mere semi-circle (the *thymele* was never present). The stone theatres that were constructed later raised the *skene* proper to the roof of the auditorium (the *frons scaenae*) and crowned it with an elaborate façade. Of the more prominent

playwrights, T. Maccius Plautus (c.254-184 BC) modelled his comedies on Greek originals, especially those of Menander (see Phase IX). Roman elements were often introduced however, and Greek stage conventions were abandoned. Publius Terentius ('Terence', c. 185-159 BC) a *liberus* or freedman (i.e. a former slave), remained more faithful to Greek models (again, mostly those of Menander) and sought to cater for a more aristocratic audience. The works of the tragic poet Quintus Ennius (239-169 BC) included tragedies, comedies and satires, but remained essentially exercises in literature, written for the élite and for recitation before more intimate, sophisticated audiences gathered in the *odeum* (>Gr. *odeon*). The dramatic language of Plautus and Terence was based on the *saturnian* metre, closer to the accented forms of demotic speech. Roman poets adapted Greek metre for their own use. Roman tragedies were literary exercises written for public recitation, an artificial creation intended to glorify the ancestors of rich and powerful patrons. The common people tended to gather at the pantomimes to watch performances of their favourite stars - the *archmimes*. Satire has been hailed as Rome's most original literary creation, but it remained literary and therefore 'select' - public performance was far too risky in a state riddled by continual tensions between the masses and the increasing totalitarian tendencies of the later Principate.
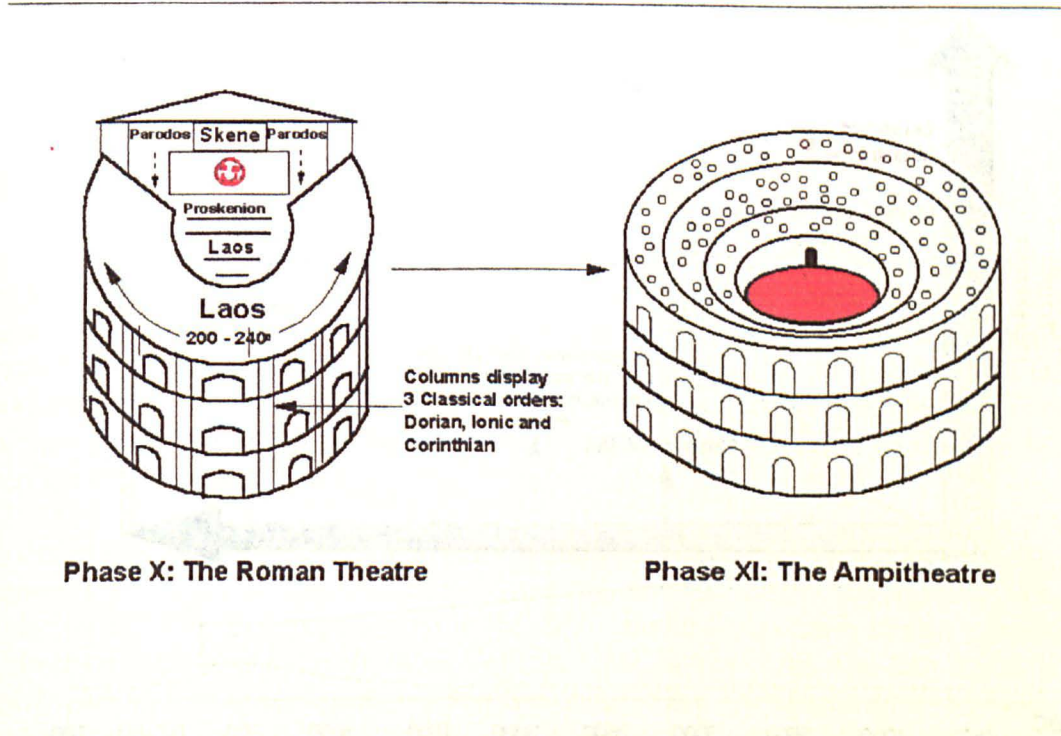
Fig. 8.19: The Evolution of Greek Theatre. Phases X - XI: the Roman Era

The Roman equivalent of the Greek 'Axial Conflict' was the final Civil War (49-27 BC) that led to the destruction of the Republic. The Principate (Empire) was established by Augustus and Rome's continual striving towards democratic reform under the Consular Republic was terminated once and for all. Under the Empire, drama became overblown and debased in the great spectacles of the Games, which were enacted in massive ampitheatres constructed with complex subterranean engineering (including the

capacity to flood the entire arena when necessary). Within the *arenas* of these ampitheatres, large-scale *venationes* or beast-hunts were enacted (which in time exterminated much of the native fauna of N. Africa), as well as gladiatorial combats, sea and land battles, all commemorating or re-enacting various events in mythology or history - only in these re-enactments, the slaughter was all too real. The funding of entertainment on a massive and lavish scale (comparable to the expensive 'blockbusters' of our own age) was now necessary for all those seeking high public office under the Empire, both to ensure popularity with the masses and to distract their attention from the power struggles and corruption of the élite. In the design of the ampitheatre and the performances enacted within it, we actually witness a return to Phase I in a petrified and degenerate form. *Laos* and *Chora* now form a single circle - now static. *Orchestra* and *thymele* are merged into the slaughterhouse/altar of the *arena*. The former sacrifice of the totemic goat and the tribal act of communion are replaced by the mass slaughter of humans and beasts and the shared passions of projected sadism. Even the *satyra* is present once more - now in the form of chariot races staged at the Circus Maximus.

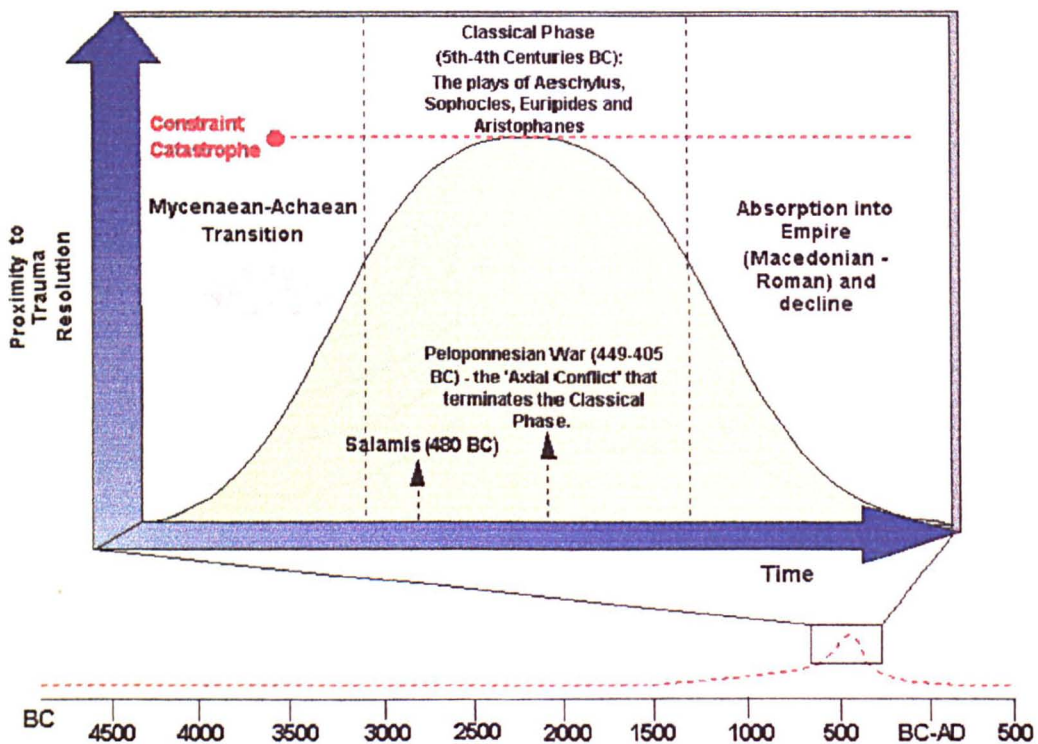*Fig. 8.20: Summarised Evolution of Greco-Roman Theatre.*

With the rise of Christianity, gladiatorial combats were finally banned in 404 AD, and *venationes* in 523 AD. Numerous relics of the venationes survive however, in various forms of the corrida. At Nîmes for example, the bullfights are still enacted in the ancient ampitheatre, still in a good state of preservation. Hellenistic civilisation died in the 6th

century AD, but its affiliated culture - one that managed to transcend the constraints of antiquity, also managed to preserve much of the ancient heritage and eventually transforming it and translating it into new creative forms. Authentic tragic theatre on the archaic model revived with the mystery-play cycles of Medieval Europe and the cycle of dramatic evolution began again.

We have seen how any attempt to transcend the global constraint catastrophe imposed by the dominant construct of a given culture threaten the unconscious with abandonment and death. We have also seen how the mother-daughter relationship is the crucial factor in the creation and transmission of defensive constructs and constraint catastrophes. If the maternal image is denigrated, and the child at risk of infanticide or sexual abuse as was the norm in Ancient Greek society, violence will be endemic within the culture and the constraint catastrophes especially difficult to transcend (Sagan 1991, 1993). Although youthful Attic culture gained enormous self-confidence after the defeat of the Persians at Salamis in 480 BC, its precocious leap forward in the direction of scientific, literary and artistic creativity (especially when compared to other cultures of the period we call 'Antiquity') could not be sustained under the conditions of dominance and submission - i.e. slavery, exclusion and the glorification of violence - that permeated the classical ethos. It was a case of 'the light that burns twice as bright burns half as long'. Greece's direct successor, Rome, also succumbed to diminishing marginal returns activated by similar constraints (Tainter 1988; Sagan 1993).

8.5: Pictorial Art - The Stendahl Syndrome.

The Stendahl Syndrome takes its name from the French writer Marie-Henri Beyle Stendahl (1783-1842) who first described it. The syndrome manifests itself as acute feelings of anxiety or distress, often accompanied by giddiness or even fainting, when a person (usually a tourist or traveller) is confronted for the first time by certain famous works of art or architectural masterpieces. Stendahl described his own experience of this syndrome while on a trip to Florence in 1817 as did Freud in a letter to Romain Rolland dated Jan. 1936 (Freud 1950).

Freud does not directly refer to the 'Stendahl Syndrome' as such since the range of symptoms were given this collective name by the Florentine psychiatrist Graziella Magherini in 1979. In a paper given at the 22nd Annual Convention of the International Psychohistorical Association in New York in 1999, Robert Liris and Guy Lesec of the French Psychohistorical Society presented the results of Magherini's research into manifestations of the syndrome among tourists of various nationalities visiting Florence. All through the 1970's, Magherini recorded and timed fMRI shifts among a large sample of volunteer subjects who were presented with a variety of 'famous' pictures featuring both landscapes and/or people. The majority of subjects who displayed strong reactions of one kind or another shared a similar basic pattern of response, shown in Fig. 8.21 below.
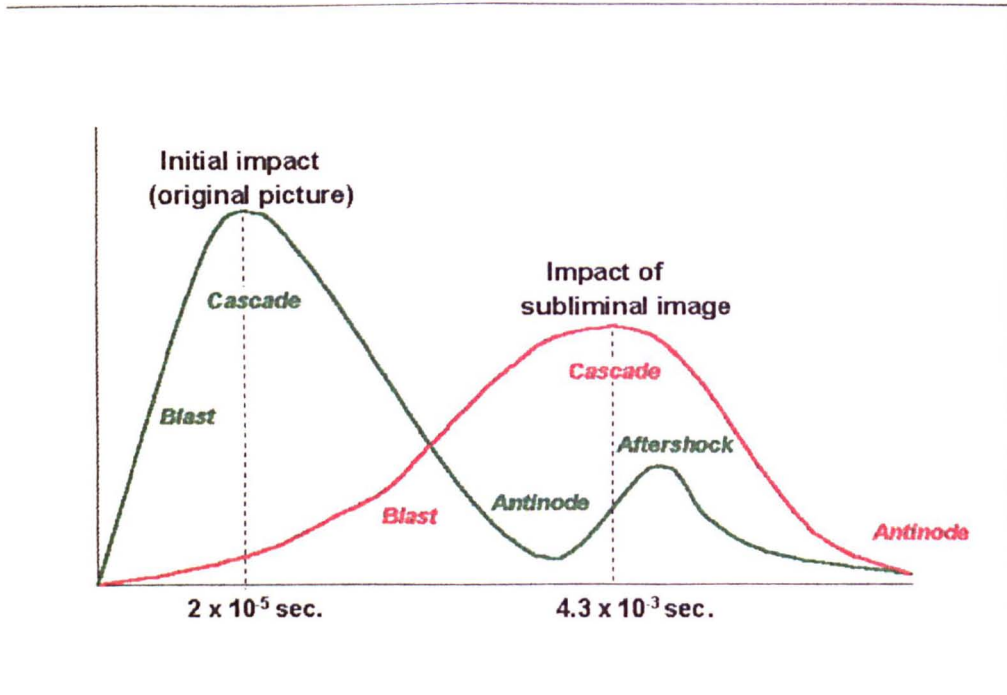
Fig. 8.21: Timed shifts in fMRI imaging of subjects experiencing the 'Stendahl Syndrome' (Based on Liris & Lesec's as yet unpublished summary of Magherini's research).

The overall form of this function would appear to show strong similarities with the 'crisis function' studied by Dai Williams (Williams 1999) as well as certain features of the dynamic evolution of the parabolic umbilic (D_5) catastrophe discussed by Guastello (Guastello (1995). These features are shown in Fig. 8.21 above. How are these responses activated?

In ch.7 we described how catastrophe manifolds consist of scalar fields (V_x^n) on which a range of dynamics (x^n) operate during morphogenesis. Both Thom (1972) and Zeeman (1972-77) have shown how these manifolds express fundamental paths of morphogenesis, as well as representing the 'field dynamics' of interaction between organisms, and between organisms and other objects in their general environment. They describe the interactive dynamics of perception, linking the form of the object perceived with the emerging mental image created by the perceiver in the act of perception, binding both perceiver and perceived within a single manifold (Pomian 1989). Certain pictures, by virtue of perspective and depth effects, use of colour or hue, mutual emplacement of subjects or figures and the interrelationship of the boundaries or morphogenetic fields of these subjects or figures to one another, can provoke a dynamic substrate in the perceiver's unconscious which evokes a corresponding catastrophic form or manifold relating to a subliminally-imprinted image, schema or mental representation derived form the perceiver's perinatal or early childhood experience. As a very simple example of this (drawn from the Liris & Lesec presentation), Fig. 8.22 below displays two stages in the perception of a 'synthetic' picture intended to illustrate the process.
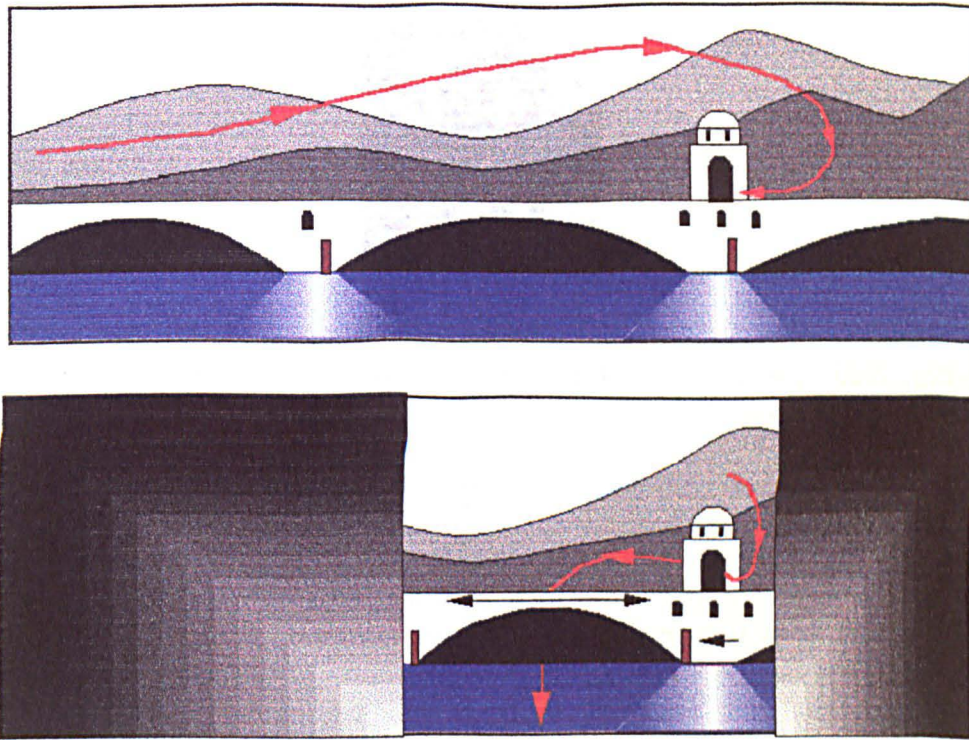
Fig. 8.22: Perinatal catastrophe evoked through the Stendahl Syndrome

In the upper half of Fig. 8.22, the full image is perceived first. The basic asymmetry of the picture, i.e. the slope of the background hills, the horizontal sweep of the bridge and the emplacement of the tower to the right, all draw the perceiver's centre of focus from left to right. In the lower half of Fig. 8.22, the perceiver's field of perspective is narrowed and salient details of the picture compressed (e.g. the mooring posts), drawing the centre of focus through the tower entrance, back underneath the black arch of the bridge and through the water - a cuspoid flow dynamic which, in relation to the images in the picture, evokes memories of the birth catastrophe.

Some well-known pictures that are known to create similar dynamics include the following:

Fig. 8.23: Leonardo da Vinci: **Virgin and Child with St. Anne** *(National Gallery, London)*

1. This picture shows St. Anne, the Virgin Mary and the Child Jesus who is playing with a lamb. Confronted with this picture, Freud's close friend Oscar Pfister experienced the disturbing image of a 'terrible black bird' emerging from the bosom of the Virgin - the drapery over the left arm of the Virgin forms the tail, the bare right foot represents the beak. This species of image is a condensed Jungian archetype - the black bird being a form of the neolithic Mother Goddess (e.g. the Sumerian *Imdugud*) - hence an image of primal trauma.
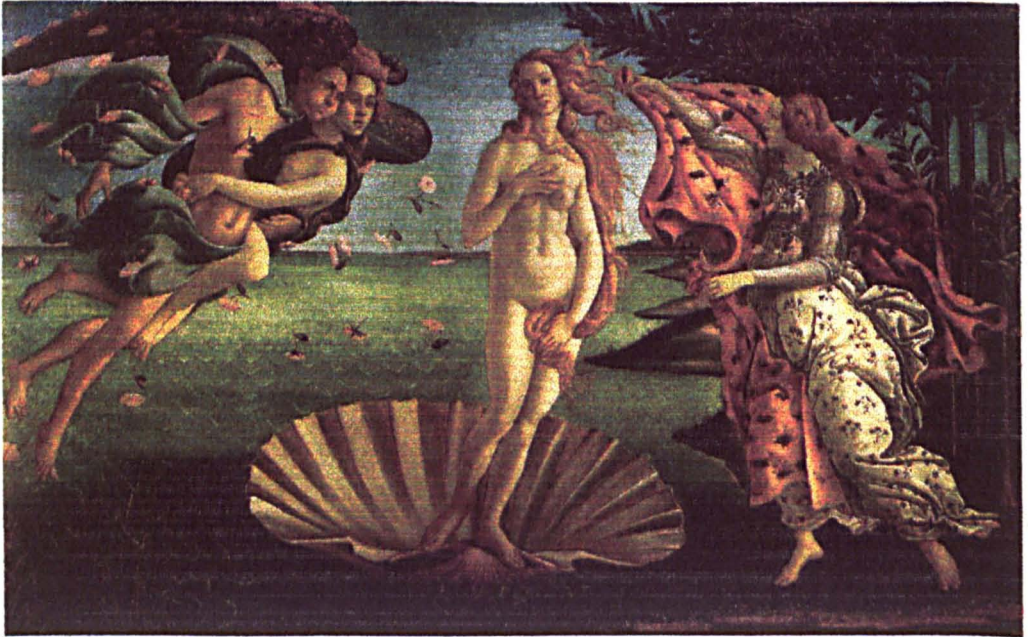
Fig. 8.24: Botticelli: **The Birth of Venus** *(Galleria degli Uffizi, Florence)*

2. In this work, after the first impact of the total picture (initiation of the green line in Fig. 8.21) the dynamic sweep of wings and drapery on either side of Venus plus the dark, placental image of the forest on the right-hand side initiate the second (red) trajectory, compressing the viewer's perspective and conducting the focus of the perceiver upwards to the zenith, then downwards through the 'birth

canal' behind the female image (which is slightly offset to the right to permit passage), into the waters, through the shell and upwards to identify with the newly-born Venus. The perinatal catastrophe is reinforced a) by the colour of the draperies in conjunction with the 'placental' forest - red signifying arterial, nurturant blood, blue the venal, poisonous blood characteristic of the late phase of placental degeneration.

Fig. 8.25: Botticelli: **Primavera** *(Galleria degli Uffizi, Florence)*

3. This picture is well-known for the dynamic effects created by figure emplacement and the use of compressed perspective. The dark 'placental' forest forms the entire background while the 'birth canal' in the centre remains impassable. The menacing, tilted aspect of the blue Zephyr to the right seizes the viewer's focus and conducts it upward in a wide sweeping arc from right to left. The dynamic arc is accelerated by the image of the blindfolded Cupid (facing towards the left and aiming towards the three Graces), while the raised arm of Mercury and the entwined arms of the Graces both arrest the dynamic and compress the viewer's perspective, directing the focus downwards along the contours of the two rightmost Graces towards the dark ground, where the raised red robe of the Primavera draws it up again towards the archetypal fertility symbol at the core - the womb of the 'Venus-Madonna'. Once more, the red and blue hues represent nurturant and poisonous aspects of the placenta. The blue Zephyr is in the act of seizing and transforming the nymph Cloris into the Spring goddess Flora i.e. placental degeneration precipitates birth, but the finality of birth is denied us here - the invitation is to return to and rest within, the womb of the Madonna at the core.

Both *Venus* and *Primavera* show how subliminal dynamic catastrophes originating from within the perinatal matrix (the archetypal morphologies of ch.7) are activated, become stabilised and compactified, and finally condense into Jungian archetypes. In landscapes, impressionism and abstract art this condensation may be incomplete or absent. The interpretations given above are do not account for the multilevel appeal of both pictures. The basic dynamic may arise through many levels prior to condensation. Nevertheless, by analogy with Binion's theory of literary 'classics' (Binion 1997), 'masterpieces' remain masterpieces because they contain, yet effectively mask, subliminal dynamics or images derived from the core of primal trauma. This is the source of their continual fascination and the obsessions they generate, shown by the high monetary value placed on such works.

This species of subliminal dynamic is not expressly created by the artist, but arises from the artist's subconscious through the process of creation. Other works contain archetypal images which are either explicit and fixed, or expressly hidden in such a way that they form the implicit matrix through which explicit images emerge. One image of the former type is Caravaggio's depiction of Bacchus:

Fig. 8.26: Michelangelo Caravaggio: **Bacchus (Galleria degli Uffizi, Florence)**

4. The sexual ambivalences created by Caravaggio in his depiction of Bacchus arouse the latent bisexuality of the viewer. Irrespective of the gender identity established after birth, latent bisexuality is rooted in the psychologically androgynous state of the fetus prior to birth which is subsequently reinforced or inhibited by post-natal experience. Since geometricisation precedes verbalisation in the emergence of consciousness during morphogenesis (Thom 1989 p.5), pictorial images can access this androgynous substrate far more directly.

Pictures that contain archetypal images expressly hidden beneath their surface detail or imagery are found with increasing frequency in the history of Western art as we move from the Dutch Renaissance to the abstract and surrealist works of the 20th century. These devices are found especially in the works of Giuseppe Arcimboldo, Hieronymus Bosch, Pieter Brueghel (the Younger), Salvador Dali and Pablo Picasso (among others). Among the works of Picasso, the most famous in this respect is *Guernica*.

Fig. 8.27: Picasso: **Guernica** *(Museo Nacional Centro de Arte Reina Sofia (Madrid))*

5. The hidden images contained within *Guernica* have been the subject of numerous studies (e.g. Becraft 1983). As a study of death, the picture contains embedded images of many Spanish cultural archetypes that form the symbolism of death (e.g. the bull). Space forbids a detailed analysis of how these condensed archetypal images are blended implicitly within the explicit surface imagery of the painting - certain websites contain Java Applets which activate these images so that the viewer can see them using 'de-focussed' vision[3]. These images include:

   a) the *Great Bull* - extending the whole length of the picture, the head and horns are at the left (the horns are the 'actual' horns of the small bull, the muzzle is formed by the dead baby's head) while the back sweeps across to the right, the tail being formed by the fragments trailing from the figure with arms extended, the lower hoof formed by the right knee of the fleeing woman.

   b) The image of a *Bull's Head* lying in death - at the lower centre, the mouth and muzzle is formed by the extended arm carrying a broken sword and the black triangle immediately above, the horns by the larger white triangle above.

   c) The *Skull* - the lower jaw is formed by the outstretched arm and hand on the lower left, the eye-socket is delineated by the head and hair of the woman carrying the dead baby (the 'nose' of the Skull).

   d) The *Helmeted Head* - an image of mechanised death appearing directly in the centre, the crown of the helmet formed by the horse's head, the eye-socked formed by the inner curve of the horse's neck with a gaping mouth appearing at the termination of the neck.

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[3] i.e. in a state of simulated hypnosis. In addition to the Becraft study, two current 'root' websites assist the viewer in perceiving subliminal images - *http://www.mysite.freeserve.com/guernicaunveiled* and *http://web.org.uk/picasso/secret_guernica.html*.

In addition, there are numerous images of the *Harlequin* - an ambivalent archetype derived from the ancient *saltimbanco* (8.4 above) that expresses both humour and tragedy. In an article written for the *Neue Züricher Zeitung* in 1932, C. G. Jung wrote a controversial article on the Picasso exhibition then showing at the Zürich Künsthaus, in which he referred to the *schizoid* aspects of Picasso's art. By this, he intended not to depict Picasso as a 'schizophrenic' but to draw attention to the subliminal archetypes of primal *splitting* that lie embedded at the core of much of Picasso's work. The evolution of these subliminal images can be traced in the many preparatory sketches and drawings made by the artist prior to creating the final picture (Becraft *op.cit.*).

8.6. Conclusion: towards a metatheory of cultural evolution.

At the beginning of this chapter, we proposed that some clues to the psychohistorical structures underlying the evolution of cultural forms may be found in Kroeber's *Configurations of Culture Growth* (Kroeber 1944). Citing G. Evelyn Hutchinson's 1945 review of this work, the Polish science fiction author and literary critic Stanisław Lem expanded upon Kroeber's thesis in relation to literature (Lem 1984 pp.172-78). "*Kroeber* [writes Lem] *compares the various periods of world history that were made memorable by extraordinary developments in philosophy, science, philology, sculpture, painting, drama, music etc. In each of these cultural activities we can distinguish the embryonic and initial stages, when the parameters of all potentially realisable constructs that can be derived from the culturally accepted paradigms of artistic creation are already set -* as yet without anyone's being aware of it [my emphasis] (*op.cit.* p. 173). This would suggest that the roots of the initial *Ursatz* that will eventually generate the 'core grammar' of a cultural form lie in the collective unconscious. Lem continues: "*In this early stage of the model, the whole stock of structures that can be derived from it is markedly indeterminate; in the course of their creative work, succeeding generations gradually determine the field of possible configurations, until it is completely delineated and exploited. The creative work of every historical period has developed within such limits or boundaries*" (*ibid.*).

Analogies can clearly be seen between the Hutchinson-Kroeber model and the general topological unfolding of a chreod, discussed in ch. 7. Congruent with Lem's description, a cultural chreod would contain a finite, bounded 'family' of configurations unfolding from an initiation set. This initiation set is the grammatical substrate', the *Ursatz*, the core narrative structures or dominant paradigm of a particular cultural form realised in philosophy, science, literature, art, music, drama etc. The emergence of this initiation set depends on the psychoclass structure of what is destined to become the 'creative élite' within the given culture, the mean levels of generic and inflicted trauma within this group, its situatedness within the overall social matrix of that culture and the evolving structure of the shared intrapsychic construct binding it together in response to the historical forces acting upon it and propelling its members outwards in a defensive realisation of Petitot's *élaboration symbolique*. The chreod unfolds and complexifies over time within boundaries determined by a) the primary fold constraint of the perinatal

matrix, b) the secondary constraint arising from the psychoclass structure and c) the grammatical and structural possibilities of the form in question during that epoch.

The lifespan and developmental trajectory of a cultural chreod determine the sociocultural preconditions for the emergence of what we call 'genius'. Creative genius is by no means 'innate' or 'genetically-determined', but is critically dependent on its *collusive recognition* as such within the context of an unfolding cultural chreod. Ability counts, of course, but this ability can often only be realised within the appropriate sociocultural context. Mozart is a typical example of this. Born when he was within an appropriate and comparatively stable social milieu, he was also able to learn the dominant musical grammar of his epoch at an early age and master its total range of possibilities without being 'contaminated' by the radically conflicting modes of expression that afflict any person with similar abilities born at the present time. Lem cites Hutchinson further as saying that: "*the chances of becoming an outstanding creator under different historical circumstances are not uniform, since an individual can create only within the field of paradigmatic structures that he finds prepared for him when he comes into the world. Those who are born in an early phase of the exploitation of a given "family of structures" face an enormously broad and difficult task, since the mass of virtual possibilities has not yet been defined. Those born in this state ... may perhaps gain the recognition of a small circle of enlightened cognoscenti, but they will not become as well known, or be able to form schools or movements quite as easily, as those who begin their work in the stage of* maximal *development of a given creative tradition* [Lem's emphasis]. *Thus the sooner a genius is born within an artistic tradition, the more he can create; but if he arrives too early, he may remain merely an unknown precursor* (*ibid.* p.173 - in music thus would apply to the work of such composers as Hildegard of Bingen, Léonin or Pérotin - author's note). *The person who arrives at a peak stage of a particular tradition can create a great deal, backed by strong social reinforcement* [e.g. Bach, Mozart, Beethoven or Brahms - author's note]. *The artist who appears when most of the possibilities have already been exploited can, at best, become an original representative of a decaying tradition*" (*ibid.* - an example of this would be the late 19th - early 20th century symphonists such as Mahler, Brückner, Rachmaninov or Elgar - author's note).

Lem also stresses Hutchinson's observation that the overall growth and evolution of a cultural form has the general mathematical shape of a *sigmoid* of the Verhulst-Pearl type (*ibid.* p.175). This is familiar to us from ch.7 of this study as the typical mode of neural reinforcement and learning, the dynamics of emotional reaction and the evolution of group fantasy - an example of the self-similarity across scale characteristic of *fractal expansion* in both biological systems and behavioural dynamics. The sigmoid function also characterises the transition from one attractor basin to another in catastrophe manifolds, with hysteresis marking the initial and final exponential inclines of the transition. The evolutionary scale of sigmoid-type transitions will be discussed further in the final chapter of this study.

From what has been discussed in the context of the present chapter, it is possible to discern the basic patterns of chreodic growth by means of which the 'singularities' of

certain cultural idioms such as literature, art or music expand from their 'initiation sets' through their zones of support and influence into their 'umbilical' or bifurcation zones - where their possibilities achieve fullest elaboration. In *literature* this process is marked by the evolution of grammatical tropes through core narrative structures derived from the archaic mythic substrate of shared experience, in *music* through the growth and exploitation of the potentialities of the Ursatz, assembled from the substrate grammar, and finally in *painting* by the evolution and ultimate disintegration of the canons governing the social perceptions of form. The final epoch of elaboration is succeeded by the disintegration and decay of each form, beginning at a stage in the elaboration process marked by the fold constraint defined by the primary defensive construct of the given culture. The evolution of a cultural form therefore proceeds through 5 phases:

1. *Emergence:* archaic, inchoate, mythic-based,

2. *Crystallisation of grammar and form:* attainment of coherence ('Classical' phase),

3. *Elaboration of language and exaggerated prolongation of formal elements in the pursuit of realism:* the expression of psychological conflict ('Post-Classic' or 'Romantic' phase),

4. *Decoherence and breakdown* (Comedy becomes prominent at this time),

5. *Eclecticism, sensationalism and 'scanning behaviour':* the desperate search for relevance, a new basis for coherence and new forms.

This discussion is not intended to be 'evaluative' in terms of artistic criticism. The CT-based semantic analysis of underlying morphologies, their enfieldings, complexities and application to layer analysis, the succession of grammatical tropes, narrative modes and basic assumption structures - all these provide a set of non-evaluative heuristics purely for estimating the dimensions and phases of cultural morphogenesis with respect to specific idioms or forms. The value, significance and appeal of specific cultural achievements in any particular epoch is not called into question.

Chapter 9. Research Methods and Applications

9.1. Towards a psychohistorical metatheory.

Few psychohistorians have made explicit statements concerning methodology. Those most frequently cited in this regard are Erikson, Lifton (both formerly of the Wellfleet Group) and Friedländer, each of whom set out four criteria for psychohistorical analysis. Erikson's criteria are generalised from his study of Gandhi and relate to the impact or action of a historical figure at a given time and place (Erikson 1969 pp. 55-6; 1974; 1975 pp.127-48).

1) In evaluating event x, its meaning must be studied in the context both of the life *stage* of the individual and of the *whole* life history of the individual.

2) The evaluation of event x must be compatible with the developmental stage during which it is supposed to have occurred and there should be a 'plausible developmental continuity' between an earlier event (x_{t-n}) and a later one (x_{t+n}).

3) If event x is valid in the context of an individual's development, it should also be valid in the context of the social matrix and in the context of the history of that matrix.

4) Intersubjective and transference effects must be fully taken into account - including the *weltanschauung* of the psychohistorian.

Erikson stressed the role of society in the formation of the individual and proposed 8 developmental sequences in an individual's life history (ch. 2.4). These criteria therefore stress both *genericity* and *context* in research - by genericity is meant the avoidance of purely transverse perspectives (the single instant in time) and the importance of placing an individual and event x within the context of her/his overall life-history and the history of the society in which he/she is embedded. Criterion 2 anticipates the techniques of time series analysis employed in complexity theory, while criteria 1 and 3 suggest the application of embedding theorems in the context of such an analysis (ch. 7.3).

Lifton's *4 Paradigms of Psychoanalytic Psychohistory* are less 'criteria' than models for conducting psychohistorical research (Lifton 1970; Lifton & Olson 1974):

1) Freud's prehistorical paradigm dealing with the oedipus complex as expressed in *T&T* and *MM.*

2) Individual psychopathology or psychobiography on the model of Freud's analyses of Wilson, da Vinci and Dostoyevsky.

3) Erikson's model of the 'great man in history' (Lifton & Olson 1970/74, p. 29).

4) The model of '*shared psychohistorical themes as observed in men and women exposed to particular kinds of individual and collective experience*' (ibid. p.30). Examples include Keniston's on American students (*ibid.* pp.149-64), Cole's on children exposed to rapid social change or racial discrimination

(*ibid.* pp.165-81) and Lifton's own work on survivors of historical trauma (Lifton 1967, 1968, 2000).

Paradigms 1-2 would now require qualification in the light of what is now known concerning the ramifications of generic trauma and group process, the various levels of evolutionary dynamics, the encoding of archetypal morphologies and the dynamics of the social trance. Freud's psychobiographies of da Vinci (Freud 1947) and Wilson (Freud & Bullitt 1967) have been subjected to criticism on the basis of faulty scholarship, psychoanalytic reductionism and interpretative error (Crosby & Crosby 1981; Friedländer 1978). Paradigm 4 is another matter. Lifton's main contribution in this domain shows how certain non-pathologising ways of conducting psychoanalytic interviews can contribute to and complement experimental and clinical research, strengthening the 'compromise manifold' between qualitative and quantitative domains (Kvale 2003 - see below).

Of Friedländer's *four criteria for the analysis of event x*, the first three essentially summarise and restate those of Erikson and Lifton (Friedländer 1978):

1) *Convergence/overdeterminism:* monocausality should be scrupulously avoided. Multiple psychological factors may contribute to event *x*. "*What counts in the validation of a theory, so far as fitting the facts is concerned, is the convergence of the data brought to bear on it, the concatenation of the evidence...*" (cited from Kaplan 1964 p.314).

2) *Gestalt:* at the same time, the principle of convergence dictates that "*a single plausible pattern exists only rarely... the number of coherent explanatory structures in a particular case is always limited and this limitation is in itself a verification criterion from the psychohistorical point of view*" (Friedländer *op.cit.* p. 23).

3) *Comparability* (of the same behavioural patterns at different phases of an individual's life): event *x* has added significance "*if the historian observes a manifestation of the same form in a whole category of personalities linked to each other by other universal common denominators*" (*ibid.* p. 23). Compare Erikson (3) and Lifton (3).

4) *Quantitative Analysis:* psychoanalytic evidence should be compatible with as well as correlated with, statistical evidence or evidence from another independently-derived scientific model. Such models "*can be applied to biographical studies as well as to the study of collective phenomena*" (*ibid.* p. 25).

Criterion 4 stresses the necessity of moving beyond paradigm containment to embrace '*new, scientifically-cogent ... theories of mind and group relations*' (Peitikainen & Ihanus 2003) as well as the complementarity of qualitative and quantitative research. In general however, Friedländer's further elaboration of these criteria tend to reflect the increasingly obsessive caution that began to constrain the field's development and expansion since the early 1980's. Little or no mention is made of intersubjective factors and researcher bias, a point of which Erikson himself was well aware (Erikson's criterion

4). Langer's expansive vision gradually receded as global politics entered a predominantly schizoid phase and factionalism began to erode the psychohistorical movement (ch. 3).

In the meta-analysis conducted by Crosby & Crosby (1981) the authors conclude their study by recommending:

- that psychohistorians pursue a more integrated and consistent definition of the field,
- that with regard to the study of the past, they select those subjects or epochs most suitable for psychohistorical analysis (i.e. persons, processes, key events or bifurcation points for which sufficient documentation or evidence exists),
- that they should re-evaluate current psychoanalytic theory, and
- that they extend their methodological tools to include the appropriate use of other psychological theories.

These recommendations are consistent with those set out over the course of the present study, but while Crosby & Crosby's evaluations are sound from the perspective of historiography and the general use of clinical theory, the authors' wholesale dismissal of childhood history and family systems theory seriously vitiates the overall study. Given this omission, it is hardly surprising they draw such negative conclusions with regard to group psychohistory, which is so central to the field. The psychoanalytically-based group process studies of Anzieu, Bion, De Maré, Foulkes, Slater, Stein, Stierlin, Turquet and Wasdell (among others) are an indispensable adjunct to psychohistorical research. Without the insights provided by this tradition, it is hardly surprising that any psychohistorical analysis of group behaviour confining itself only to social psychological theory would appear to be 'an impossible effort' (*op.cit.* p.240).

The core problem lies with the issue of metatheory. As Nuttall has shown, while integrationist attempts multiply within the therapeutic domain, each new such attempt becomes 'professionalised' upon acceptance by the therapeutic community and ends up as another 'school' among the 400 or so currently in existence (Nuttall 2002). From the academic perspective, Guastello points out that the current average level of ecological validity in 'linear' experimental work does not exceed 50% (Guastello 1995 p.2), while Michell proposes that if experimental psychologists are ever to engage significantly with authentic reality they must identify fundamental, deep-level processes that are realistically quantifiable as physical realities rather than embracing collusively-defensive measurement systems to which arbitrarily chosen and superficial behavioural variables are then made to conform (Michell 1997).

Any deepening and expansion of the metatheory will therefore require the integration of psychoanalytically-based and experimental methods, as well as the building of bridges between qualitative and quantitative approaches to the central issues raised in chs. 4-7 of the present study. These issues are all closely linked and can be broadly defined as follows:

1) The encoding of psychogenic fields at quantum, molecular, cellular and organic levels during morphogenesis.

2) The stress-induced deformation of these fields during intrauterine growth, parturition and early infancy.

3) How psychodynamic defences emerge in response to these deformations and become compactified and embedded within each other to form individual defensive constructs during key phases of maturation.

4) The degree to which these constructs intersect with one another to form the basis of group (collective) constructs.

5) How the expression of these constructs is influenced by sociohistorical context.

6) Factors that determine individual and group variance in construct formation.

7) How these constructs are expressed somatically, affectively and cognitively.

8) How they evolve over individual lifespans as well as over brief and extended group histories.

9) Their historical evolution within groups of various types (unibonded, multibonded, homogeneous, heterogeneous, groups of the Bion type, nuclear and extended families etc.).

Ideally, co-ordinated research programmes within the psychohistorical community should be fostered, programmes which incorporate as far as possible all findings in contemporary experimental work that are relevant to the above issues, including:

1) The latest reports from quantum psychological, neurobiological and neuroscientific research. More accurate data on prenatal and early infant neurobiological and neuropsychological development await further advances in neuroimaging techniques (EEG, MEG, PET, fMRI etc.) that enhance our current understanding of structure and process at ever finer levels. These advances will hopefully emerge as we approach the current limits of CMOS technologies as defined by Moore's Law (Roco & Bainbridge 2001 pp.27-28 *et passim*) and applications of newly-emergent nanotechnologies become practicable, possibly within 10-15 years (Drexler 1996; Freitas 1999; Roco & Bainbridge *op.cit.* pp.26, 103).

2) Insights from genetics and the evolutionary sciences. While it is claimed that the human genome has now been fully mapped, the list of genetic components resembles a storehouse of raw ingredients rather than a recipe book - the dynamic integration of these components, i.e. the successive emergence and unfolding of selected morphogenetic fields that determine the growth of the human organism - remains little understood.

3) Experimental studies across all fields of psychology, including insights from the psychoanalytic and therapeutic domains gained through:

a) individual analytic case-histories and psychoanalytically-based interviewing techniques, developed from those of Stromberg (1993) and Lifton (2000) - see below,

b) extended group process studies using methods similar to those of Bion, Anzieu and Slater - i.e. the study of extended laboratory 'microcultures', either in a laboratory situation (Jacobs & Campbell 1961; Insko et al. 1982) or by testing the algorithmic models of ch. 5.5 through simulation studies.

4) The meta-analysis of clinical data, case histories and general studies drawn from pre- and perinatal research, social work and family systems theory. Such meta-analyses can offer clues to the psychoclass structures and relative distribution within the world population, as well as to the dynamics of psychospeciation.

5) The judicious integration of data gained from all these sources through modelling procedures based on the integration of nonlinear dynamics theory with statistical methods (Guastello 1993). CS models can often be a source of liberation rather than constraint in that they may reveal structures and processes that are counterintuitive, and which challenge socially-constructed notions of 'common sense'.

Insights gained from these co-ordinated programmes of research may then be applied to the four traditional domains of psychohistorical study - psychobiography, childhood history, family systems theory and group process studies (Lawton 1988), to the analysis of specific cultures, epochs, events or individuals or to deep-level, transcultural processes. Subjects should be selected for which sufficient historical data exist. This data is drawn from:

- Archive-based research employing original sources as much as possible, although also including the meta-analysis of secondary studies. The original sources may necessarily include material which may not be of obvious importance to the 'traditional' historian or archivist, such as personal memorabilia, photographs, fragments of discarded non-manuscript material etc. - i.e. anything which indirectly sheds light on the emotional life of an individual or epoch (Saffady 1974). Regarding recent or contemporary individuals or events, some of this material might be overlooked, or could be restricted (e.g. material relating to the communist years, most of which has only become accessible after 1989).

- Archaeological relics and artefacts, some of which may or may not be displayed by museums in the interests of conveying 'revised' narratives of the past in accordance with contemporary fantasies (Hammond 1994; Pomian 1991, 2001).

- Representative examples of cultural expression, including architecture, literature, the visual arts, music etc., the 'deep-level structure' of which may be amenable to analysis (ch. 8).

- More recently - sound recordings or film images (e.g. Nazi film archives).

Historical research of this type may help us to understand:

- how individual motivation, though and action are related to the dominant constructs of a society or epoch,
- how psychospeciation occurs over time,
- what historical processes are invariant in the sense of evidencing deep-level structural stability within and across cultures (the implicate orders),
- what aspects of these processes are liable to deformation, i.e. variance (the explicate orders), and
- what historical factors determine what degrees and types of variance,

Through this understanding it may become increasingly possible, through development of a more refined temporal perspective, to gain a far deeper comprehension of the forces at work within contemporary global society and develop applications that exploit the creative pathways inherent in the very fabric of (seeming) chaos. These applications would be predominantly in the fields of therapy, education and consultancy.

Four main knowledge domains flow together to form the basis of psychohistorical metatheory. These are shown below in the form of a chart (Fig. 9.1 below):
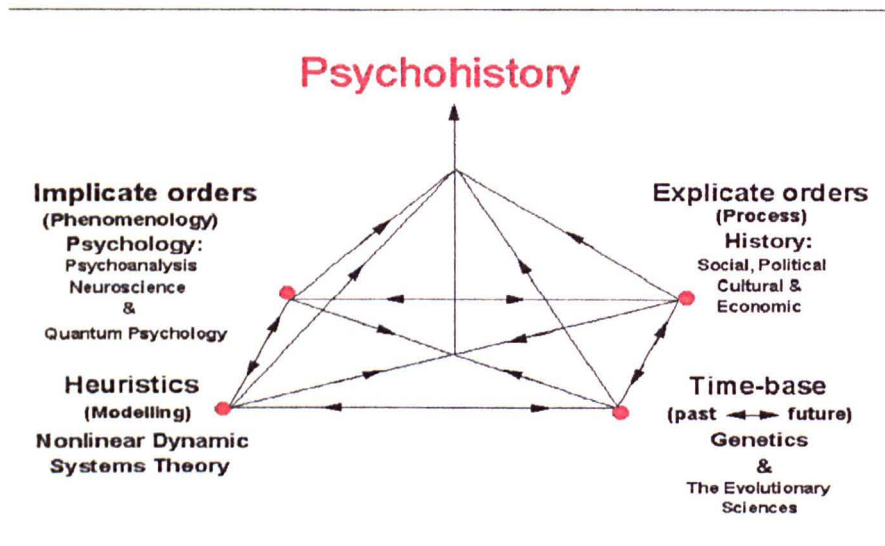
Fig. 9.1: The Consilient Basis of Psychohistory

The domains can be defined generally as the *implicate orders* (i.e. the motivational phenomena investigated by the psychological sciences), the *explicate orders* (their realisation through historical eventuation), *the time-base* (incorporating the longer-scale hysteresis effects of the various evolutionary processes discussed in ch. 6), and finally *heuristics* (the means by which the interactive dynamics between the three previous sources can be studied and integrated). In the context of these domains, we now discuss

the relationship between qualitative and quantitative approaches in psychohistorical research, beginning with a discussion of psychoanalytically-based research methods.

9.2. Qualitative approaches: the psychoanalytic interview as research method

Kvale (2003) asserts that academic psychology, while constructed upon the legacies of psychoanalytic insight, continues to exorcise psychoanalytic methodology: "*general textbooks of scientific psychology today survive parasitically on knowledge produced by a psychoanalytic method denied scientific status*" (p.31) He proposes that therapeutic and interview-based research should complement rather than supplant the work of experimenters, arguing that the importance of the interpretation of meaning in psychoanalysis brings it "*close to the hermeneutic tradition, where it has been addressed as a 'depth hermeneutics' and as a 'hermeneutics of suspicion'. The interrelational base of psychoanalytic knowledge is congruent with the relational approach of phenomenology and of social constructionism, where the individual is replaced by the relationship as the locus of knowledge*" (p.22). He nevertheless cautions that interview researchers in psychology "*need not necessarily cross the border to the other social sciences and humanities and import the latest methods and paradigms of the qualitative wave. By sticking to their own trade, psychologists may find many of the necessary interview tools within their own therapeutic backyard*" (p.25).

In support of this proposition, Kvale cites two examples of well-known studies that were conducted through the interview method: Piaget's (1923, 1971) cognitive development in children and Adorno's study of the 'authoritarian personality' (Adorno *et al.* 1950). Kvale also emphasises the use of interview methods in industrial (or 'commercial') psychology where the aims of two or more parties are in conflict, citing the Hawthorne Interviews on human relations in industry (Roethlisberger & Dickson 1964) and two studies dealing with market interviews and focus groups (Dichter 1960; Greenbaum 1998). To these we would add two more important studies making more specific use of psychoanalytic theory: those of Stromberg (1993) on the Christian conversion narrative and Lifton (2000) on the motivations and post-war reactions of former medical doctors in Auschwitz.

Kvale identifies 7 key aspects of the psychoanalytic interview method which differentiate it from questionnaire-based research in the academic domain:

1) *The individual case study:* which involves mutual, multiple-mode interaction often over the course of several years.

2) *The open mode of interviewing:* structured within the 'therapeutic hour', the analyst-analysand dialogue is conducted through free association on the part of the analysand and 'hovering attention' on the part of the analyst.

3) *The interpretation of multiple layers of meaning.* Wide cultural knowledge acquired through deep awareness of the historical dimension is essential on the part of the analyst if he/she is to locate the analysand within his/her social

and cultural context and correctly identify those multiple layers of cultural symbolism which bear upon the psychological history of the analysand. Such knowledge is rarely, if ever, a prerequisite for experimental research.

4) *The temporal dimension:* analysis extends over several years, incorporating the biography of the analysand within the context of the analysand's culture in order to establish contextuality within the general vectors of historical time.

5) *Human interaction:* the psychoanalytic interview involves intense and reciprocal interpersonal involvement through the mechanisms of transference and countertransference.

6) *Pathology as the explicit focus of investigation:* pathologies lie beneath visible modes of behaviour and must be interpreted in the context of culture since pathologies are defined variously within this context. Since psychohistorical research focuses as much on the pathology of normality as the pathology of deviance, interviews that serve psychohistorical research should avoid any direct 'pathologisation' of the analysand (Lifton 2000).

7) *Academic and psychoanalytically-based methodologies should be regarded as complementary rather than antagonistic.* The psychoanalytic approach creates ethical problems that do not normally arise within the experimental community as well as some practical issues that cannot normally be included in the experimental situation:

Certain factors differentiate analytic or therapeutic-based knowledge from academic interview-based research. These are as follows:

1) Psychoanalytic research is based primarily on *human interaction* deriving from the transference/countertransference relation. Devereux has identified two types of countertransference (Devereux 1967):

   i)   *Conformal* - in which the analyst's countertransference 'agrees with' the analysand's projection.
   ii)   *Concordant* - in which the analyst's countertransference is in empathy with the projections of the analysand (Stein 1999).

2) The analysis of human interaction takes into account *body language, facial expressions, gestures and olefactory or chemotactic response,* not to mention the possibility of social *field dynamics* on the Lewin model (Lewin 1951) described in terms of CT in ch. 7 of the present study or in terms of interactive ψ-fields by some researchers in quantum psychology (e.g. Hameroff & Penrose 1995; Frölich & Hyland 1995; Woolf & Hameroff 2001; Laszlo 2003). Experimental researchers are not normally trained in the observation and interpretation of these phenomena and the length of time required for their analysis may be prohibitive in terms of experimental grants. Such factors are

clearly not involved in the analysis of historical sources - but this is also a limiting factor in the use of such material.

3) The main objective of analysis or therapy is *change* in the analysand's orientation and behaviour - not through the deconstruction of intrapsychic defences but through the facilitation of more 'mature' (i.e. 'flexible' and 'adaptive' defences). Given the length of time demanded by the psychoanalytic interview, some degree of personal change or transformation is an unavoidable by-product of such a method, even if the interview is not aimed primarily at deconstructing the pathologies of the analysand.

There are also certain dangers involved in undergoing analysis. These are:

1) *Power-based abuse* of the analysand on the part of the analyst through exploitation of the transference-countertransference relationship (i.e. the conformal countertransference). It is important to free the analysand from any perception of the analyst as a 'high priest' (the 'man in a white coat'). Apart from the clearly negative aspects of such a relationship (not to mention emotional pitfalls), this may also lead to:

2) *uncritical acceptance* by the analysand/interviewee of the theoretical base, methodologies and interpretation of the analyst.

The question arises as to how is objectivity to be assessed and verification or validation attempted in a psychoanalytic investigation. Kvale also identifies 7 factors that contribute to a correct psychoanalytic interpretation and diagnosis:

1) *Freedom from bias* on the part of the analyst with respect to the person of the analysand and the analytic methods employed, i.e. the analyst cannot enter into the therapeutic relationship 'determined to see' certain phenomena or with the aim of vindicating his/her pet theory - for a more complete treatment of all aspects of therapist/researcher bias see Devereux (1967) who extends his analysis to cover many areas of scientific endeavour.

2) *Intersubjective agreement* between analyst and analysand regarding the outcome of the analytic or therapeutic process.

3) *Letting the 'subject'* (in this case, the analysand) *speak at will*, whether or not this violates some 'procedure' as preconceived or rehearsed by the analyst.

4) *Allowing the 'subject' to object* with respect to method, procedure or interpretation. In contrast to most laboratory experimental procedures, the outcome of a psychoanalytic evaluation or interview is the result of co-operative agreement between researcher (the analyst) and the 'subject' (the analysand.

5) *Utilising resistance as a mode of validation:* in a psychoanalytic situation the vectors of resistance delineate the boundaries of the repressed. In an experimental situation, any tactical deconstruction of these boundaries would constitute an ethical violation of the 'subject"s privacy. As Kvale observes: *"the penetrating interpretations and repeated critical checks of the subjects' statements, which may instigate deep changes in their self-understanding and personality, are part of the therapeutic contract, but out of reach for research purposes"* (*op.cit.* p.38).

6) *Awareness of the possible power relations* created by the transference-countertransference relation. This remains a perennial obstacle to successful therapy or research due to inadequate ego-deconstruction on the part of the analyst (see below).

7) *Indirect validation* - in the psychoanalytic/therapeutic community this is the clinical equivalent of 'peer review' conducted in the context of a supportive social environment.

In view of these differences between psychoanalytic and 'traditional' academic research methods, how can ethical guidelines be preserved if the psychoanalytic interview method is to be incorporated into experimental research on an equal basis with other methods? It is quite possible in principle for psychoanalytic researchers to observe similar guidelines to those of other researchers. Deception of the 'subject' on the part of the researcher is rarely if ever fruitful in psychoanalytic research since the primary goal is to understand the deeper motivations of human behaviour. Fruitful insight can only be gained through the fullest co-operation between analyst/analysand or researcher/interviewee, thus the ethical guidelines for both experimental psychology and psychoanalysis converge as follows:

1) A full explanation of experimental goals and methods is given to all participants. Participants must be fully aware of the nature and scope of a psychoanalytically-based interview, and of how it differs from the standard psychological interview. The extent and depth of their participation (as outlined above) must be made clear.
2) The anonymity of all participants is assured by guarantee.
3) The willing consent of all participants must be gained with respect to objectives, method, procedural detail and outcome.
4) A full debriefing must be given at the conclusion of the experiment or interview process and the results fully disclosed.
5) The researcher(s) must obtain the participants' approval prior to publication of the results.

These guidelines are entirely consonant with those issued by the British Psychological Society with respect to experimental research, but a significant danger of fully incorporating psychoanalytic methodologies within the academic environment is that the psychoanalytic interview method may become standardised and rigidified. If

psychoanalytic methodologies are successfully to complement and contribute to experimental research as well as enhance the ecological validity of the results, openness of procedure and multitheoretical perspectives must be encouraged and maintained at all times. Two paradigmatic examples of psychoanalytically-based research will serve to illustrate the above principles.

Stromberg (1993) conducted an in-depth analysis of the role played by language in the Evangelical Christian conversion process (ch.8.2). Focussing on the intersectional roles played by between canonical, referential and constitutive domains of language in resolving intrapsychic conflict in terms of Biblical scripture, Stromberg obtained the full consent and co-operation of the congregation of *"an unnamed Evangelical church"* (p.xiv) in obtaining volunteers for his interview-based research. Anonymity of the volunteer-participants was guaranteed and maintained, and full transcripts kept of the interview process. The notation methods devised for these transcripts are significant in that they attempt to record, not only the verbatim disclosures of the participants, but also the emotional cadences, emphases, 'Freudian slips', gestures and body language of the participants. These notational methods represent a development of those previously employed by cultural anthropologists such as Moerman (p.xvi - citing Moerman (1988) and an unpublished paper by Varenne). The participants had full access to these transcripts, which were subjected to peer review prior to publication - with the consent of those same participants (pp.xiv-xv).

Lifton (2000) also demonstrates the application of large-scale interview methods in his study of the former medical doctors of the Auschwitz concentration camp. This study was originally published in 1986, then updated in order to relate its conclusions to more recent events involving genocide, ethnic conflict and mass cultic suicides (e.g. Serbia during the 1990's, the Aum Shinrikyo, Peoples' Temple and Branch Davidian cults). Interviews were conducted with 29 former Nazis who were directly or indirectly involved with medical genocide (28 doctors and one pharmacist), 12 former Nazi professionals outside the medical field (to compare the general impact of ideology on 'professional' people) and 80 Auschwitz survivors, over 50% of whom were themselves doctors. Anonymity of the participants was guaranteed, and their full consent obtained both with respect to the interview and to any tape-recording in accordance with guidelines set out by the Yale University Commission on Research with Human Subjects (p.9).

Building upon previous experiences gained during research on thought reform in totalitarian régimes (1961), on the survivors of Hiroshima (1967), on participants and survivors of the Chinese Cultural Revolution (1968) and war-induced PTSD survivors (1970), the latest refinements of Lifton's interviewing technique serve to create less of a psychoanalytic consultation than a *"shared exploration of experience which contains elements of a "psychotherapeutic healing spirit""* (1970, p. 8 and 2000, pp. 6-14). Lifton sought not to pathologise his interviewees but to engage them in a long process of empathic dialogue in order to explore *"shared psychohistorical themes as observed in men and women exposed to particular kinds of individual and collective experience"* (1970. p.30). Given the extreme gravity of the subject matter of this study, such empathy did not come easily, as Lifton himself testifies (pp.6-14, 501-4). While not reproducing

the psychoanalytic dialogue in detail, Lifton gives a narrative account of each interview within its historical context and describes the personal difficulties he experienced due to the reluctance of many subjects (among the former Nazis) to acknowledge any moral dimension relating to the issues involved. Confronted with the powerful fantasy of transcendence and 'revolutionary immortality' still catalysing resistance among the former perpetrators, Lifton maintains that "*this paradigm ... delimits the researcher's combined attitude of advocacy and detachment: articulating one's inevitable moral advocacies, rather than bootlegging them in via a claim to absolute moral neutrality; and, at the same time, maintaining sufficient detachment to apply the technical and scientific principles of one's discipline*" (p.14). Explaining the roots of genocide in terms of the intersection between ideology and the historical context of particular psychological groups subject to boundary collapse and acute paranoid-schizoid regression (ch. 5), Lifton acknowledges that he felt himself changed through confrontation with the pan-human dimension of genocidal catastrophe. Confessing his personal sympathy with the Auschwitz survivors, he strove to view the perpetrators primarily as human beings, not as dissociated archetypes of evil. He stresses that "*this meant requiring of myself a form of empathy for Nazi doctors: I had to imagine my way into their situation, not to exonerate but to seek knowledge of human susceptibility to evil*" (p.501).

Critics of psychohistory are correct in maintaining that the transposition of insights gained from 'living' psychoanalytically-based research to epochs in the now inaccessible past demands caution. While the above studies focus on specific issues either of the contemporary world (Stromberg) or of a period still within living memory (Lifton), the interviewing *techniques* employed by both researchers can easily be adapted and generalised to other living persons, situations or cultures. Transcultural analysis of this type can enable researchers to estimate the generic (and therefore ahistorical) sources of human behaviour as opposed to what is contextual (historical). By means of cautiously retrospective analysis of still-extant traditions or cultural remains, the metatheoretic core can be evidenced to a greater or lesser degree through careful correlation of sources, whether literary, historical or archaeological, from a particular epoch in the past. Essential for research of this type is the ability to detach oneself from contemporary bias and frames of reference, and attain a degree of empathy for the period in question, free of 'romanticised' preconception or revulsion at some of the material uncovered. Lifton's study illustrates the profound psychological impact disturbing events can have upon researchers, suggesting the need for researchers themselves to undergo some form of 'ego-deconstructive' training that can confer some degree of personal stability when confronted with extreme anxiety-provoking material.

9.3. Quantitative approaches: The integration of CS hypotheses with traditional statistical procedures

CS or nonlinear dynamic systems theory has been shown in ch. 7 to have major implications for psychological research because it grew from the study of complex systems that evolve over time, i.e. CS-based modelling helps us analyse *generic* rather than static phenomena. Catastrophe theory was introduced in ch. 7 as a useful heuristic for understanding the simplest kinds of global transformation encountered in CS. From

the perspective of human morphogenesis, catastrophe manifolds contain all basic interaction flows of philosophical *qualia* (Thom 1989; Pomian 1989; Penrose 1994; Hameroff 1998; Laszlo 2003), while Thom's classification theory permitted the narrowing-down of all possible modes of discontinuous change to a few 'canonical' forms (Guastello 1995 p.71). A catastrophe manifold contains all possible pathways of attractor change under certain stringent conditions (i.e. the number of control parameters), but as a topological 'rubber sheet', it preserves invariance while being capable of sufficient deformation to accommodate a limitless number of behavioural subtleties. In ch. 7 we suggested how catastrophe manifolds may link the experiential/existential with the neurobiological/quantifiable, that catastrophe manifolds may not only assist in the understanding of *individual* cerebral processes but that mental phenomena can also operate over shared manifolds, suggesting that this approach may be considered a refinement of Lewin's *Social Field Theory* (Porter 2001; Laszlo *op.cit.*).

As with the early history of CT, the newly-emergent CS paradigm caused the pendulum of scientific opinion to swing violently. Guastello describes the relationship between CS and 'traditional' statistics as one of 'approach-avoidance' (*ibid.* p.65 *et seq.*). *CS makes extensive use of concepts* drawn from algebraic topology which essentially describes qualitative change. For this reason *Stevens (1951),* in reference to Lewin's Social Field Theory, pronounced the relationship between statistical and *topological* approaches to be a 'contradiction in terms', an opinion that was seconded by Woodcock & Davis (1978) in their introductory manual to CT-applications. Stewart {1989) relates the history of 20th century physics in terms of the final 'liberation' of nonlinear dynamics from outmoded statistical theory. This view was reinforced by Casti (1991) who declared that statistics were now obsolete as a means of developing and testing theory. The pendulum began to swing back again when Peters (1991) reported that nonstatistical methods for estimating Lyapunov exponents[1] were not always reliable under certain conditions. Priesmayer (1992) attacked 'traditional' statistics' assumptions of linearity and the tendency to classify all deviations from linear models as 'error' (Guastello *op.cit.* p.65). This may reveal the core of the lovers' quarrel - the issue is not about 'statistics' *per se* but about the significance of dependent error in residuals (*op.cit.* pp.79-80). The persistence of outliers and deviations in both raw and processed data may contain clues to deeper underlying structures which, though complex, non-reducible and lying beyond the stated aim of the experiment, may ultimately have greater explanatory power.

The pendulum finally seemed to come to rest with Cobb's work on *probability density functions* or pdfs (Cobb 1978, 1981a, 1981b). Subsequent work by Cobb and other researchers led to the development of various techniques for the estimation and testing of latent parameters in catastrophe pdfs and the creation of a generalised program called GEMCAT (Oliva *et al.* 1987; Lange *et al.* 2000) for the multivariate estimation of cusp and other catastrophe structures. This program is still evolving and is at time of

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[1] Lyapunov exponents measure the degree of convergence/divergence between trajectories in the phase space of an attractor. If the Lyapunov exponents are zero (stable) or negative (convergent) then the attractor is stable and periodic. If at least one exponent is negative (divergent), the attractor is complex (chaotic), if infinite positive (instantaneously divergent), the attractor is random or 'noisy' (Addison 1997 p.161).

writing freely available on the internet[2]. Meanwhile, Guastello was exploring the structure of dynamic difference equations for catastrophes (Guastello 1982a, 1982b, 1987a, 1987b, 1988, 1992a, 1992b) - summarised in Guastello (1995 pp.70-79). Many of the Guastello applications focus on organisational function, crisis and accidents in the workplace, issues which relate at a deeper level to the general psychodynamic structure and function of groups as discussed earlier in this study.

If CS is indicative of a major paradigm shift in the physical, biological and social sciences then it is reasonable to expect, as Guastello proposes, that CS should also have a significant impact upon statistical theory. Psychological phenomena are frequently 'overdetermined' as a result of genericity, complexity and discontinuous (nonlinear) change. Guastello therefore advances the following implications of such an impact (Guastello 1995 pp.59-60).

1) Many phenomena must be viewed as autoregressive - i.e. regression is an indicator not of conformance to a simple mean but of gravitation towards an attractor.
2) Changes in the behaviour of a system are governed by system entropy, attractor dissolution and transformation.
3) Many phenomena that are inadequately explained in terms of 'traditional' models should be re-examined in terms of *phase transitions* (Gilmore 1981) - by means of which one model can be unfolded into another (see the enfielding model of ch. 7.4).
4) Multivariate linear regression is replaced by nonlinear regression.
5) Dependent error in residuals become absorbed under nonlinear regression methods (Guastello *op.cit.* p.80).

Following the definition of a research aim and the initial gathering of raw data, Guastello recommends the following steps in building a conceptual model (1995. p.71):

1) The identification of behavioural output variables and the number and type of stable system states.
2) The identification of hysteresis effects, multiple threshold events or other instabilities.
3) The selection of a model that accounts for the observed dynamics - following the principle of Occam's Razor, try the simplest first.
4) The identification of real-world variables that exhibit asymmetry, bifurcation, swallowtail, butterfly or other catastrophe features.
5) The identification of any possible surface gradients.
6) The comparison of the proposed function with any functions already known that may account for the same phenomenon.

In sum, structural models that permit statistical verification of CS hypotheses are rooted in the theory of pdf's. These fall broadly into the following classes (*op.cit.* p.98):

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[2] http://www.sbm.temple.edu/~oliva/cat-theory.htm

1) polynomial regression for cuspoid catastrophes,
2) canonical polynomial regression models for separating partial differential functions associated with the umbilic catastrophes,
3) polynomial regression for functions of the logistic map,
4) the estimation of fractional dimensionality and probabilities for the existence of complex attractors and
5) variants of all of these for the analysis of coupled dynamics.

Various applications that link CS and statistics models to psychoanalytic phenomena are described in Schore (1994 pp.63, 194, 292, 297, 445, 469-72, 500, 537) along with suggestions for further lines of research. A classic CT study which would benefit from further statistical validation is that of Zeeman & Hevesi on anorexia/bulimia cycles (Zeeman 1977 pp. 33-53).

In describing pdf's for the umbilic catastrophe series ($D\pm_4$ - D_5), Guastello shows how the graphed pdf of the parabolic umbilic (D_5) has a characteristic feature sequence which he refers to as *blast* → *cascade* → *plateau* → *antinode* → *aftershock* (Guastello *op.cit.* pp.84-5). Bearing in mind the compactification by D_5 of the 'sexualised' catastrophes $D-_4$ and $D+_4$ (Thom 1989 p.99 n.4) it is interesting to study the *crisis transition function* governing human responses to critical change as studied by Dai Williams (Williams 1999) and shown in Fig. 9.2 below:

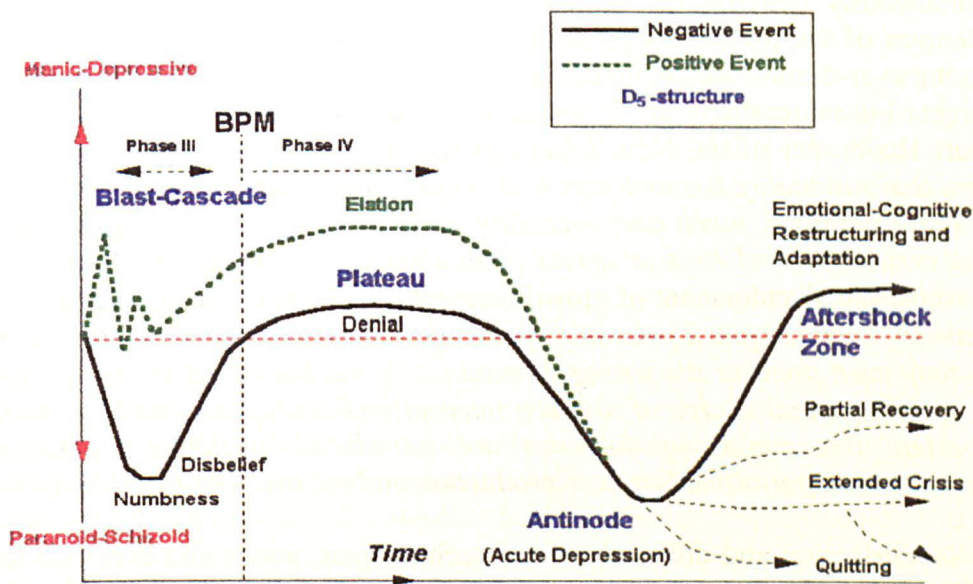**Fig. 9.2: Crisis Transition Function**
(after Williams 1999)

Crisis functions of this type can clearly be interpreted as variants of the parabolic umbilic or D_5 manifold. In Fig. 9.2, the function is also interpreted in terms of phases III -

IV of the *Basic Perinatal Matrix* as described in ch. 4. Extreme crises can be "good" or "bad". Both types evoke repressed memories of transmarginal stress encoded before, during and after parturition such that the function recapitulates the stages of emotional response to these events.

If it is psychohistory's mandate to gain a far deeper comprehension of the forces at work within global society in order to develop applications that 'exploit the creative potential inherent in the fabric of chaos', it is essential to make a realistic appraisal of the challenges facing us at present.

9.4. Challenges facing global society at the present time.

Globalisation currently marks the 'late imperial' or 'Universal State' phase of Euroamerican culture (Toynbee 1972), which is currently facing a crisis of disintegration similar to yet on a far larger scale than, the empires of the past. At the dawn of the 21st century overpopulation, environmental destruction, acute resource depletion, increasing disparity of wealth and sociopolitical instabilities all propel the current historical system towards collapse and transition. At the same time, archaic evolutionary drives and the constant recapitulation of generic trauma on an ever widening scale exacerbate deep anxieties evoked by a subconscious realisation of the imminence of this transition. These anxieties, rooted in the perinatal matrix, drive both individuals and groups to intensify EEA-derived strategies more appropriate to earlier phases of our history while simultaneously denying the ultimate futility of these strategies in dealing with the challenges of the present. Supposedly 'rational' solutions prove less and less effective, bringing ever-diminishing marginal returns as depleted resources are desperately invested in higher but increasingly brittle levels of socioeconomic complexity (Tainter 1988). As Robert Heilbroner of the New School of Social Science has noted: "*We have become aware that rationality has its limits with regard to the engineering of social change, and that those limits are much narrower than we had thought... that growth does not bring about certain desired ends or arrest certain undesired trends*" (Heilbroner 1991 p.50). Yet wholesale abandonment of growth strategies may prove equally futile, as Heilbroner observes: "*...impassioned polemics against growth are exercises in futility today. Worse, they may even point in the wrong direction... In the backward areas, the acute misery that is the potential source of so much international disruption can be remedied only to the extent that rapid improvements are introduced, including ... health services, education, transportation, fertilizer production and the like*" (*ibid.* pp.159-60).

Redistribution and diffusion of new technologies, goods and expertise form part of the B-phase or downswing of every long-wave or Kondratyev cycle (Van Duijn 1983; Reijnders 1990; Tylecote 1992). However, the current rate of technological acceleration serves only to increasingly delimit and constrict the market area available for saturation, augmenting the disparities between core and periphery (Wallerstein 1998 pp.57-8). Heilbroner points out that "*...massive human deterioration in the backward areas can be avoided only by a redistribution of the world's output and energies on a scale immensely larger than anything that has hitherto been seriously contemplated... such an unprecedented international transfer seems impossible to imagine except under some*

kind of threat" (*op.cit.* p.44). This threat is of a triple nature: a) environmental deterioration, b) climate change and c) base resource depletion (fossil fuels). The necessity of switching to another base resource (e.g. hydrogen, as advocated by Rifkin (2003)) runs into similar problems faced by past societies in crisis - the timely transformation of existing power structures. These power structures seek to entrench themselves further as acute resource depletion restimulates primal fears of perinatal impingement. As Wasdell writes: *"Obsessive, angst-driven struggle for resources is the order of the day. In the light of these dynamics, the norms, value-systems and processes of capitalism and the power-struggle of the free-market economy can be seen as the social construct of anxiety defence reified into a resource-related ideology... The impact of the paranoid swarm is to push the global system beyond the "positive sum" scenario of growth for all, beyond the "zero-sum" scenario in which inequitable resource-sharing drives the weakest to the wall, and into the "negative sum" scenario of potential catastrophic implosion"* (Wasdell 1992 pp.5, 9). Heilbroner in turn foresees *"...a climate of extreme 'goods hunger"* where *"a large scale reorganisation of social shares would have to take place in the worst possible atmosphere, as each person sought to protect his/her place in a contracting economic world"* (*op.cit.* p.104).

Such a situation precipitates feelings of panic and rage that derive from the second and third stages of the BPM. Caught in the transition between pre- and postnatal inner worlds, elements of the 'paranoid swarm' regress to increasingly schizoid modes of behaviour, expressing these feelings through sexual promiscuity (symptom of a desperate, unfocussed desire to 'merge' within the womb) or aggression - in an attempt either a) to be 'received' back into the womb ('paradise') via religious fundamentalism (Toynbee's 'archaism') or b) to force through the transition as quickly as possible so as to be 'reborn' (i.e. 'War as Birth' (deMause 1982 pp.93-99) - Toynbee's 'futurism'). Citing once more the introductory essay to the Freud Exhibition entitled *Conflict and Culture* held in 1999 at the Jewish Museum of New York, we are reminded that: *"although much has changed since Freud first formulated his theories, today's concern with the disruptive power of sexuality and aggression has only intensified. Freud did not propose solutions to how one might escape this violence. Instead, his writings on the connection of culture and conflict identified fundamental problems for the twentieth century - problems that show no sign of disappearing as we move into the twenty-first"* (see ch.2.2). Hence the increasing preoccupation with 'moral decay' as well as with global 'terrorism' (the onslaught of the supposed 'barbarians') in which WMD's may come to play an increasingly deadly role in an overpopulated world. Heilbroner states that *"...two considerations give a new credibility to nuclear terrorism: nuclear weaponry for the first time makes such action possible, and 'wars of redistribution' may be the only way by which the poor nations can hope to remedy their condition"* (*ibid.* p.45). The nuclear arsenal has now been augmented by biological and chemical weapons that are far easier for poorer groups to manufacture.

This triple threat to global stability produces: *"...a challenge of equal magnitude for industrial socialism as for capitalism - the challenge of drastically curtailing, perhaps even dismantling, the mode of production that has been the most cherished achievement of both systems. Moreover, the mode of production must be abandoned in a mere flash of*

time as historical sequences are measured" (*ibid.* p.109). This is not to say that 'apocalypse', 'Armageddon' or 'total extinction' are inevitable or even likely. The 'end of the world' always appears as such to those on the cusp of historical transition, when all social constructions and collusive systems of defence face imminent dissolution. Nevertheless, some form of 'die-back' and infrastructural collapse would indeed seem to be unavoidable, entailing severe re-traumatisation of the survivors as well as the loss of key resources and knowledge. This re-traumatisation, plus the need to manage a greatly depleted resource base will exacerbate the effects of neoteny-induced dependence, propelling the survivors to embrace willingly any form of authoritarian structure that may seem to offer some sense of security. As Heilbroner observes: "...*strong leaders provide a sense of psychological well-being that weak ones do not, so that in moments of crisis and strain demands arise for the exercise of strong-arm rule"* (*ibid.* p.132), therefore "... *the passage through the gauntlet ahead may be possible only under governments capable of rallying obedience far more effectively than would be possible in a democratic setting"* (*ibid.* p.134). Symptoms of imminent 'knowledge death' such as that which occurred towards the closure of the first Islamic cycle (Whyte 1980) are already evident both in the 'diminishing marginal returns' on investment in education at all levels in the core (Tainter 1988 pp.103-6) and in the increasing 'professionalisation' of research and academic teaching - i.e. their subordination to and containment by, resource-controlling power structures. This should not surprise us as we have seen (in ch.5) how a defensive obsession with control and structure acts as a substitution for mentation in large groups (de Maré 1975 p.155) and how restrictive paradigms are imposed as group totems at times of acute stress, indicating 'regression' in the sense of a retreat from the metacomplex towards more archaic, 'dichotomising' modes of thinking (Streufert & Satish 1997). Heilbroner invites us to "... *suppose ... that only an authoritarian, or possible a revolutionary, régime will be capable of mounting the immense task of social reorganisation needed to escape catastrophe... might not the people of such a threatened society look upon the 'self-indulgence of unfettered intellectual expression...as of no concern, or even of actual disservice, to the vast majority?"* (*ibid.* p.24). But in proposing that "*in our discovery of "primitive" cultures, living out their timeless histories, we may have found the single most important object lesson for future man"* (*ibid.* p.167), Heilbroner echoes Norman O. Brown's prediction of the advent of a 'Millerite Culture' - the death of cities and machines, the breakdown of global society into small tribal groups, the loss of any sense of history, the decay of scientific knowledge and the re-emergence of 'all that is truly occult' (Brown, 1959 p.305) - a society in which "*the search for scientific knowledge, the delight in intellectual heresy, the freedom to order one's life as one pleases, are not likely to be easily contained ..."* (Heilbroner *op.cit.* p.166).

Brown's vision is predicated on the mass annealment of generic trauma through a reconciliation between pre- and post uterine experience, but in terms of this vision we find ourselves in a 'Catch-22' situation. If human cultural achievement is the by-product of generic traumatisation, universal annealment of this traumatisation *as Brown proposes* would necessarily entail a retreat from higher cognitive functions, thus diminishing human motivation and creativity and reducing our perception of the flow of time to a more animal-like 'timeless present' (regarded by Brown as infinitely preferable to our

current state). Brown does not explain how a generalised, universal annealment of this type would ever come about.

Heilbroner correctly identifies the breaking of the 'bonds with the future' as a symptom of the chronic anxieties experienced within Euroamerican culture in the face of imminent transition: "*indeed, it the is the absence of just such a bond with the future that casts doubt on the ability of nation-states or socioeconomic orders to take now the measures needed to mitigate the problems of the future*" (p.139). This underscores the failure of all four of Lifton's modes of 'virtualised immortality' (ch.2.5) to catalyse any practical techniques of envisioning the future that may open, let alone broaden, the range of historical choices potentially available to us. "*Posthistoric society is best conceived*" Heilbroner observes, "*not as a freely undertaken movement upwards, but as a forced adaptation to the boundaries of organised collective life*" (p.27) and concludes with the pessimistic statement: "*if then, by the question "is there hope for man?" we must ask whether it is possible to meet the challenges of the future without the payment of a fearful price, the answer must be: No, there is no such hope*" (*ibid.* p.162).

9.5. The Affiliation Process.

Heilbroner's despair is symptomatic of all late-phase societies confronted with imminent dissolution of the prevailing historical system. This is because social attractors have high inertia and the process of dissolution prior to transformation cannot be arrested or reversed (chs. 6.11 and 7.11). Cultures originate when a shared defensive construct emerges as the psychosocial analogue of Edelman's *dominant core*, permitting the group and psychoclass structures of that society to become integrated within it and form a 'collective fetus' within the agreed boundaries of the wider, social 'womb-surround'. This leads to a sudden anastrophic rise or coalescence (Renfrew 1979). The defensive construct is the *implicate* order (Bohm *op.cit.*) governing the future evolution of that society. Defensive constructs are built upon collusive intrapsychic repression, and since the dynamics of repression are unstable - so is the construct itself. Constant efforts must be made to maintain it in a metastable state and this can only be achieved by scotomising, excluding, or expelling any elements that threaten that society's collective perception of reality. The boundaries of that construct's effectiveness therefore become the constraint catastrophe of the culture. If, instead of scotomising internal or external challenges, the society in question chooses to meet and incorporate them, physical expansion and complexification of infrastructure necessarily follow (hypotheses 1-3, ch. 6 above). When social complexification exceeds the 'cognitive limit' on group size (Barrett *et al.* 2002 pp. 244-53) the dominant defensive construct breaks down, creating instabilities that push internal frictions beyond the critical point determined by the boundary of the construct and precipitating an 'axial conflict' - usually in the form of violent revolution or civil war. Following this conflict, if the society recovers and still has control of sufficient resources, formerly diverse political structures converge under a monolithic, totalitarian imperialism - Toynbee's 'Universal State'. This strategy is deemed necessary for the containment of increasingly fragmented group relations but essentially represents a retreat to an idealised state of intrauterine stasis. Emotional investment is now focused on materialist expansion and the complexification of infrastructure necessary to maintain that expansion. This

expansion is viewed as indefinite, based as it is on collective intrauterine regression (due to increasing fear of the future) and fantasies of unlimited growth (Wasdell 1992). However, resource depletion and the petrified residue of the former dominant construct now combine to limit this expansion and the effectiveness of any response to environmental challenge - the only way forward is to do the same thing as was always done before, only more so (Wasdell *op.cit.*).

Continuing erosion of this regressed construct therefore inhibits any social innovations necessary to support an appropriate technological response to increasing resource depletion. Heterochronic factors (ch.6.4) contribute to this state of increasing paralysis. High social density and a diet rich in fat encourage an acceleration of puberty with subsequent curtailment of the final phases of cognitive development - abstract thought (Lehman 2001, 2003a, 2003b; Eveleth & Tanner 1976). This means that complexity of behavioural response more and more inhibited at the very point in time when it is most needed in order to develop the metacomplex strategies necessary for smooth transition to a new historical system. Mass migration from the core eventually destabilises the psychoclass structure and fractures what remains of the dominant construct. At this point the social infrastructure itself will either fragment in response or, if surrounded by other societies, drop to a lesser level of complexity - i.e. undergo catastrophic collapse (in the 'topological', not the 'apocalyptic' sense - Renfrew *op.cit.*).

The most realistic path of psychohistorical praxis would be the detection and catalysis of any possible 'chrysalis' of a successor culture that will avert or ensure the minimum degree of, catastrophic collapse. As was stated in ch.7.11, the most significant phases of catastrophic change experienced in recent human history were the transitions from the Generation I Empires ('antiquity') to the metacultures of Generation II ('modernity'). The catalytic agents in these transitions were the *monastic orders* (Berman 2000) so the first step in deciding what kinds of agency might be most effective at the present time would be to investigate the characteristics or traits that enabled these agents of the previous transition to achieve their purpose, even if this purpose was not *consciously* determined beforehand (Berman 2000).

9.6. Annealment and the process of ego-deconstruction.

Very few competent studies to date have thrown much light on the transpersonal psychologies of the 'deeply reticent world' of monastic institutions (Davies 1997) or on the process of monastic formation itself - the pursuit of *hesychia* or 'inner peace', hence the term *hesychastic* psychology (Ziolo 2002). Hesychastic psychology began with the application of Stoic principles to a specifically Christianised anthropology during the 4th century AD (Sorabji 2000). Hesychastic disciplines subsequently evolved in monasteries of both East and West from the 4th to the 14th centuries, charting the transition from the masochistic personality of early Christianity to the borderline-depressive of the later Middle Ages and Renaissance. The goal of hesychastic psychology was to attain the fullness of self-knowledge and the preferred embedding of the formative path within the experiential framework of a community was intended to obviate the serious dangers inherent in its often spontaneous and personal character - as Kenneth Wapnick has

pointed out in his comparative study of St. Theresa of Avila and the schizophrenic patient Lara Jefferson (Wapnick 1981).

From a comparative study and evaluation of the numerous sources listed in Ziolo (2002), it is possible to venture a 'plan' or tem*plate of the hesychastic* process in contemporary psychoanalytic language, viewing the process as an attempt to anneal *the* schism between pre- and perinatal experience. The process comprises six phases, some of which overlap depending on the psychic constitution and life history of the individual:

i)   *Metanoia:* the breakthrough of transmarginal consciousness and awareness of the possibilities an authentic self existing beneath the collusional structures of group defenses.

ii)   *Deautomatisation of Behaviour* (Deikman 1981a, 1981b) *and Decathexis of Emotion:* beginning of a gradual detachment from cathected objects/relationships/situations in the external social environment - the surface mechanisms of defence against the perinatal core, of archaic selfobject transference and projective/introjective identification - and the freeing of oneself from the defensive structures and parentally-sanctioned controls that create the anxieties associated with maturation and individuation.

iii) *The Initial Amplification of Sensory Modalities (Deikman op.cit.):* initial liberation through detachment gives rise to feelings of *insight* or *illumination* often accompanied by *euphoria* This is a very deceptive phase since the reflective 'mirror' around the perinatal core still deflects all attempts to penetrate to the deeper base of generic trauma. This phase is often misconstrued in cults and religions as 'enlightenment' and represented a stage of *arrest* for most Nexus groups during the earlier phases of the Gen II metacultures. Failure to reach and to anneal the core causes a resurgence of archaic, primitive defences in other forms (primarily boredom and depression - the 'noonday demon'), forcing an encapsulation of the fourth phase within a shell of defensive symbolism and desperate maintenance of the *status quo* through *theologised strategies of projection* - the perpetual conflict between good and evil.

iv)   *The Abyss of Being:* while the ego is still affected by the deeper modalities of the core-derived Id as they emerge through the unconscious, a disciplined penetration inwards leads to the eventual 'shattering' of the defensive mirror. The subsequent collapse of defences against anxiety leads to direct engagement with the sources of generic trauma. Disintegration of the internalised superego leads to breakdown of the *schizoid barrier* and precipitation of the defenceless psyche beyond the 'event horizon' into the what has been called the 'Abyss of Being' or 'dark night of the soul' - a sense of utter emptiness and fragmentation analogous to that experienced during schizophrenic episodes (Wapnick *op.cit.*). In fact, this phase recapitulates phases II - IV of the BPM and involves a confrontation with existential terror, but when the process is controlled, the 'layered' workings of the unconscious gradually become open to self-analysis, originary awareness is rediscovered and the ego becomes capable of self-reconstitution. This phase is often

marked by what is described in hesychastic literature as the 'Gift of Tears' - a symptom of partial reconciliation with the irreparable sense of loss experienced after expulsion from the intrauterine environment.

v) *Ego reconstruction and expansion:* this reconstitution, based on a strong core of recovered originary awareness, occurs through the 'fluidification' and expansion both of consciousness and ego-boundaries, permitting a highly diverse and complex connectivity to the surrounding *ecumene*. This occurs when mental energies previously invested in the shoring up of intrapsychic defences are released and become free to engage directly with the *'vectored domain of emergent process'* (Wasdell 2003). This greatly expanded potential allows cognitive processes and task-orientations to become *metacomplex* (Streufert & Satish 1997) as insight is gained into the workings of an authentic reality.

vi) *Re-engagement:* the ability to engage fully once more in authentic *praxis* - to interact maximally with the external social environment while no longer being psychically 'absorbed' by or attached to it. Personal and social space become reintegrated without each enmeshing, constraining and ultimately paralysing the other within collusional networks of intrapsychic defence.

This affinity between hesychastic formation and the modern path of 'annealment through therapy' has been explicitly pointed out by Meany (1971). In each case the goal is confrontation and, wherever possible, modification of the barriers created by generic trauma. As with psychoanalysis, the goal of hesychastic psychology is not the complete elimination of intrapsychic defences, but a reorganisation of the individual's psychic economy so as to permit a more effective and direct engagement with authentic reality. In Freudian terms, through the synthesis of Ego and Id, constraints that were formerly hidden (unconscious) now become manifest and amenable to transcendence. The historical contexts of hesychastic practice and the modern therapeutic consulting-room are quite different, but the transference-countertransference relation remains the same - whether between client and therapist in the consulting-room or between initiate and 'elder' in the monastic environment. The ideal of *hesychia* was not stasis or withdrawal but *praxis* - the creation of a more extroverted dynamic equilibrium within the psychic economy that was now free from the projective or introjective tendencies towards entities or persons in the external environment normally utilised by traumatised personalities as a means of maintaining both group and personal defensive constructs.

Penetration within and emergence from, the fourth phase encountered serious difficulties due to an inadequate decathexis during phase 2, which in turn tended to amplify both the seductive power of phase 3 (the 'initial amplification of sensory modalities') and the implicit fear of intrapsychic fragmentation involved during penetration of phase 4. Historically, difficulties also arose through the limiting function of the dominant defensive construct. Ignorance of the morphogenetic roots of generic trauma caused ever-resurgent anxieties to be contained within a dogmatic framework that identified these anxieties as 'the enemy' or 'demons' and reinforced the idea of life as a perpetual struggle, never free from conflict, giving rise to what we have called 'theologised strategies of projection'. The absence of any substitute for this today as well

as of any sustainable, informed social framework for support renders penetration of the *fourth* phase even *more difficult but* at the same time, increased psychoanalytic awareness offers a much wider and deeper territory *for engage*ment. Nevertheless, the greatest challenge for the contemporary mind remains the radical deconstruction *and* reconstruction of the individual ego.

Ego-deconstruction not only enables the proper balance of empathy and objectivity to be maintained in research, thus facilitating insight, but is also vital in the field of applications - especially education and consultation. The purpose of psychohistorical education is to gain an understanding of motivation and process in history and thereby to help students (in any field) gain a deeper understanding of the true nature of the society they live in and develop the appropriate strategies to deal with it, both personally and professionally. Similarly, in the field of consulting, whether to government bodies, private organisation or industry, the goal is to assist organisations to understand the deeper reasons for the problems and instabilities confronting them, problems that are rooted in personal and group process as well as in the history of the organisation within the greater historical context of our society. Through such an understanding, organisations with sufficient flexibility and vision can be encouraged to develop their own best strategies for coping with change and instabilities and chart pathways into the future that turn these very instabilities into opportunities for learning and creative response. A psychohistorically-based consultancy operation should be designed to lever the insights of psychohistorical research into government, education and industry so that through the unique application of psychohistorical insight based on the in-depth analysis of the adaptive strategies of historical organisations and institutions that have survived and grown over timescales of centuries in the face of far greater catastrophic changes than those we face at present, organisations can reduce inner anxieties and maintain stability and viability in the face of rapid change, as well as achieving a greater degree of insight into, and therefore mastery of, the very processes of change themselves. Such modes of *praxis*, based on a thorough knowledge of group process in terms of both *historic* and *ahistoric* dimensions, will have far greater long-term efficacy than what today passes for 'organisational psychology'. To navigate what Ernst Laszlo calls the *macroshift* (Laszlo 2003), groups engaged in this navigation must be 'in' but not 'of' the social matrix in which they are embedded. This is why effective models for the catalysis of future transition can best be found by studying the successes *and limitations* of groups that proved effective in the past.

9.7. Structure and process in maturational groups.

It is clear that any modern translation of the hesychastic process would involve a radically different external framework and infrastructure - one that does not contribute to and reinforce the symptoms of third phase arrest. Modern equivalents of 'theologised strategies of projection' include a defensive obsession with control and structure as a substitution for mentation (de Maré 1975 p.155) and the imposition of closed paradigms as group totems. But we are now in a better position to understand the reasons for third phase arrest and to develop strategies for direct engagement with the roots of the fourth phase. A *modern* equivalent of the supportive social structure that would provide an 'ideal

containing environment' for an updated analogue of the hesychastic process would be the *maturational group*. Such groups work together over many years to develop a high degree of mutual understanding based on an ongoing integration of the personal annealment process of each member with that of the collective. This enables the development of co-ordinated but fluid strategies for the group's agreed aims and goals. Maturational groups may include researchers from highly diverse backgrounds, all of whom nevertheless have a solid grounding in psychohistorical metatheory.

The main problem is process translation between small and large groups. As was shown in ch. 5, when the cardinality (membership) of a group exceeds a critical number, the correspondingly exponential number of possible interrelationships (dimensionality) generates a dense core of collective anxieties that exceeds the integrative capacity of each member. Each member is then faced with the choice of withdrawal or role assumption and the group becomes predominantly 'psychological' rather than task-oriented (Turquet 1974; Wasdell 1985). This 'critical number' depends on the personal history of each member, the history of the group as a whole and the nature of the presenting environment at any given instant, falling between 5-15 according to Hopper & Weyman (1975 pp.180-84), but definitely fixed by Wasdell at *12* (1985, 1990, 2002). When the boundary stability of a stressed group becomes critical, the large group "*has an enormous capacity to generate emotion which can very easily become ungovernable, either in the form of splitting in uncontainable panic or in the form of spilling over emotions which are irrelevant, inappropriate and ephemeral*" (de Maré *op.cit.* p.147). Yet at the same time, the large group "*is above all a highly sensitive thinking apparatus - given the necessary time and place to evolve its matrix or organisation, communication and* [modes of] *containment - of which language is a typical example. Each large group can learn to develop its own containing network, can discover its own thinking potential. The 'containing' is of lateral, affiliative, 'on the level' communication when an expansion of consciousness, of mindfulness emerges and grows if given the time and opportunity*" (*ibid.*). This 'expansion of consciousness' has nothing to do with 'New Age' rhetoric, but is a consequence of releasing energies hitherto bound up with intrapsychic defences and integrating them anew through direct engagement with authentic reality - i.e. a transition from 'globally dichotomised' to 'metacomplex' thinking and behaviour (Streufert & Satish 1997). "*Where chaos was*" writes de Maré "*there shall matrix be*" (*ibid.* p.155).

One method of process translation between small and large groups involves the creation and expansion of integrated networks using the cellular replication models and matrix-based learning methods developed by Wasdell (1993). These methods have considerable potential because:

- They take advantage of the optimum dimensionalities of groups - i.e. they develop and exploit maximally the intra-group relationship potential
- They are based on brain-analogous, parallel-processing methods
- They maximise the flow of information within and between all levels
- They are modular and replicable, therefore flexible, sustainable, adaptive and resilient.
- They encourage fluid and metacomplex strategy formation.

• They are non-hierarchic and promote polycentricity.

These methods serve to transform *ad hoc* groups into advanced, multiple-loop learning systems so that they can cope with change, challenge and instability. The wider goals of maturational groups include not only advanced, holistic learning but also permanent annealment of the members' shared and individual trauma so as to facilitate long-term, stable metacomplex functioning. An expanding network of maturational groups *of this type* increasingly functions as a 'meta-brain' - i.e. as a fractal expansion of the Edelman NGST model on the *basis of selection* algorithms applied by Edelman to the theory of neural group selection (Edelman 2000, pp. 120-4, *130-8; chs. 6 & 7 of the present study*).

Nevertheless, the most optimistic rates of annealment following cellular replication programmes may encounter problems of error propagation in transmission in accordance with the Constraint/Error catastrophe theorems of Kauffman (1993 pp.96-100; see also: Bartholomew 1973; Boyd & Richerson 1985 pp. 66-69; Lumsden & Wilson 1981; Lynch 1998; Rashevsky 1972) as well as inertia due to a) the far faster rates of birth and re-traumatisation with respect to those of annealment, b) the brevity of the lifespan, especially in the poorer areas of the planet, c) the rigid entrenchment and defensiveness of existing social systems and power structures, d) psychogenic and cultural barriers to the theoretical base and implementation of any such programme and finally e) generational conflicts through the developmental phases of the lifespan. Those who undertake and direct such programmes should be thoroughly aware of these factors, develop a clearly-articulated supergoal structure and the appropriate subgoal strategies for reaching it. Theoretically at least, dispersed and localised 'cells' of action, if well co-ordinated, can accumulate and influence critical bifurcation points and, given time, may well achieve a qualitative transformation of the dominant attractor. The main problems are a) the identification of these critical points and b) that the time taken to implement historical change on a mass level is inversely proportional to the size of the group working to effect such a change. Given the inertial factors listed above and the proliferation of attractor instabilities, the implementation, co-ordination and completion of such a programme in time to avert the more serious consequences of systems collapse following the Heilbroner scenario are unlikely at present.

Neither is the social science establishment likely to foster such programmes, embroiled as it is in the defensive and containing functions of resource-controlling institutions and power structures. Heilbroner is well aware of this when he writes: "*The observer of the natural world ... is not morally embedded in the field he scrutinises. By contrast, the social investigator is inextricably bound up with the objects of his/her scrutiny, as a member of a group, a class, a society, a nation, bringing with him/her feelings of animus or defensiveness to the phenomena he/she observes... his/her position in society - not only his/her material position but his/her moral position - is implicated in and often jeopardised by, the act of investigation, and it is not surprising therefore, that behind the great bulk of social science we find arguments that serve to justify the existential position of the social scientist*" (p.21). This would suggest that strategies utilising psychological science in the interests of promoting trauma annealment,

increased self-awareness and insight into the roots of the human condition are even less likely to be favoured by future governments than they are by those of the present. Future measures taken by those in power to avert or minimise the impending catastrophe are likely to be draconian and current tendencies indicate that the chief concern of such governments will be short-term but constant coercion of the population through intensified technologies of social control, supplemented by the application of neo-behaviourist psychologies and supported through the intensive use of media and even psychotropic drugs. For some, these societies may herald the evolutionary twilight of the species, but through failure both in knowledge transmission and the ongoing process of acculturation over increasingly brief lifespans the coming 'dark age' may not seem dark to those who inhabit it.

From the evolutionary perspective, species do not transform themselves *in toto*. We have seen in ch.6 that speciation occurs by splitting off from a central branch in the search for new adaptive solutions and that the catalyst of *psychohistorical* evolution is psychospeciation. deMause argues that psychospeciation necessarily precedes technological innovation (1982 pp.140-41). If this is the case, the highly driven personalities and groups engaged in developing the emergent technologies of the imminent, 6th Kondratyev Wave would appear to represent a psychogenic mode far closer to that identified in Baumrind (1967) than the deMausian 'helping mode'. Moreover, since emigration is not an option for newly-emergent psychoclasses at present, psychospeciation and technological innovation must become a mutually-reinforcing, co-evolutionary process *within* the dominant social system. The emergent 6th wave technologies, known collectively as the GRAIN group (Genetics, Robotics, AI and Nanotech) can be factored into nine industrial domains as follows:

- Genetics, biotech and medicine
- Robotics and AGI (Artificial General Intelligence)
- Habitat and environmental engineering
- Nanotech, quantum and gravitational engineering
- Protein synthesis, nutrition and hydroponic systems development
- Materials science
- ICT
- Planetary sciences
- Energy sources (including renewables), propulsion and vehicle design.

It is the groups engaged in the development of the GRAIN technologies and their applications in the industrial sectors listed above that offer the most critical target for psychohistorical *praxis*.

9.8. Consultancy as psychohistorical praxis

In complex societies, governmental, public or commercial bodies tend to co-exist in states of sub-optimality defined as *Nash equilibria* (Kauffman 1993 pp.239-41, 245-6, 402). These equilibria become unstable as a historical system approaches critical points of transition due to acute depletion of the resource base which had hitherto defined and

created the social and political infrastructures of all social groups dependent on it. The resource base of contemporary Fordist society (fossil fuels) is currently being depleted at an exponential rate (Rifkin 2003). Current sources of anxiety arising from issues of complexity and rapid change, competition vs. co-operation, mergers and acquisitions, restructuring, outsourcing, deskilling etc. which affect governmental, business and educational communities at all levels originate in a paranoid response to the coming transition based on deep-level psychological fears of imminent resource depletion (Wasdell 1992; Siltala 1997, 2001; Stein 2001). If transition to a new and sustainable resource base requires appropriate social and psychological preparation in order to facilitate a smooth, rather than catastrophic, transition process involving the GRAIN technologies of the sixth Kondratyev Cycle, effective psychodynamic consultations designed to catalyse the structure and dynamics of the relevant organisations engaged in *this transition require an analy*tical approach to organisations which focuses primarily on the *task-sentient boundary* (Czander 1993) as *shown in Fig. 9.2* below.

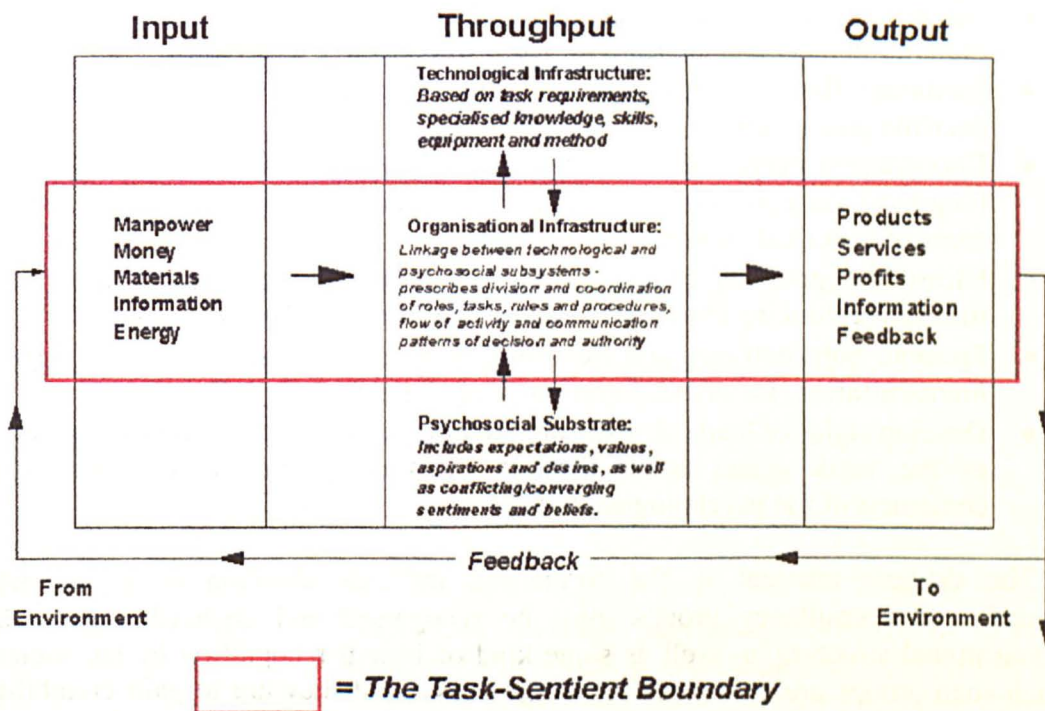*Fig. 9.2: The Organisation as System: the Task-Sentient (TS) Boundary.*

The task-sentient (TS) boundary is the point at which the task-oriented group and the psychological group intersect. Utilising general principles of systems theory and group process, this intersection is analysed in relation to:

- Boundary conditions (of the group as a whole and its component subgroups),
- Leadership structure

- Task management
- Role assignment
- Intraorganisational subgroup relations: autonomous vs. dependent modules
- Interorganisational relations: networking strategies
- Effective, long-term guiding visions (rather than 'vision statements').

A psychohistorically-based consultation and intervention into organisational structure and dynamics would then apply psychohistorical metatheory in each domain of the TS-boundary order to:

- Promote an empathic appreciation for the differing styles and potentialities of human intelligence and creativity.
- Integrate the bidirectional flow of personal and collective experience so as to give enhanced meaning and perspective to a person's work and career in the context of a given organisation.
- Use the insights of psychohistory to understand and work with the deep sources of motivation that emanate from the 'core' of collective experience.
- Surmount the constraints arising from group behaviour that inhibit effective decision and action.
- Encourage a deeper sense of historical perspective, thereby linking short- and long-term strategies (subgoals) to a greater goal (the supergoal) and widening the areas of historical choice.
- Utilise the potential of *metacomplexity* to retain and encourage openness to innovative thinking (Streufert & Satish 1997 and ch. 7 of the present study).
- Promote polycentricity and flexibility in organisational structure as opposed to hierarchisation, stasis and regression under stress.
- Develop styles of leadership devoted to engagement with the trans-boundary tasks of the work group rather than to maintaining the collusionally defensive constructs of the psychological group.

The dangers inherent in the formalised institutionalisation of psychohistorical research and consultancy groups must be recognised and engaged with. Although organisational structure, as well as some kind of formal recognition by the societies in which such groups are embedded are both necessary if they are to gain credibility and function effectively, examples from the past have shown us what happens when organisations devoted to social change or catalysis become 'established' and thereby become both a depository for the anxieties of the age and yet another field for the interplay of context-specific group and interpersonal dynamics dictated by evolutionary imperatives and the residue of primal trauma. As such organisations become enmeshed in the fantasies and distorted perceptions of the societies which they serve, so they come to share the ultimate fate of these societies. Whether there can truly be any reconciliation between the immediate necessities of organisational discipline and the transgenerational sustaining of strategies involving metamorphic levels of social transformation is the ultimate challenge facing psychohistorians at present. A generalised overview of the research and application cycle based on the themes discussed in this chapter is shown in Fig. 9.3. below.
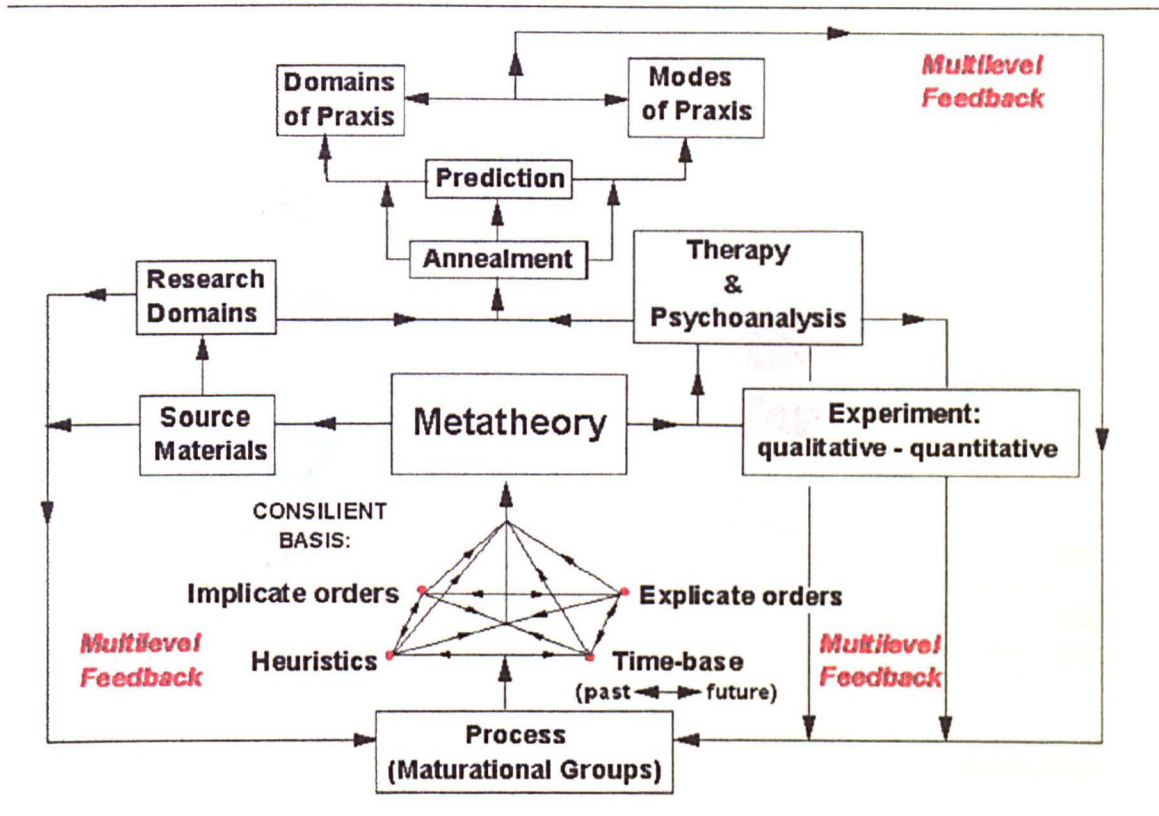
Fig. 9.3: Global Research and Application: Structure and Process.

9.9. Affiliation paths: postmodern, posthistoric or posthuman?

The upswing of the GRAIN technology-based Kondratyev cycle will differ from previous cycles in that the innovation network will be far more integrated and interdependent than ever before. This is because the entire network shares a set of revolutionary paradigms in the scaling and quantification of information, that of *nanotechnology* and *nanoscience* - the engineering of *ultrastructure* (Drexler 1996). For the *first time in history*, technology will present a significant challenge to what we conceive of as 'human nature' (Freitas *1999; Fukuy*ama 1992, 2002) and will require a far higher degree of social and psychological preparation if the *GRAIN-based* technologies are to be beneficially integrated into the global *ecumene* (Roco & Bainbridge 2001). The speciation-enhancing potential of these technologies cannot be underestimated (Satinover 2001 pp. 224-5). They imply a two-tier affiliation process, as shown in Fig. 9.4. below (cf. Fig. 7.23 of ch.7.11).
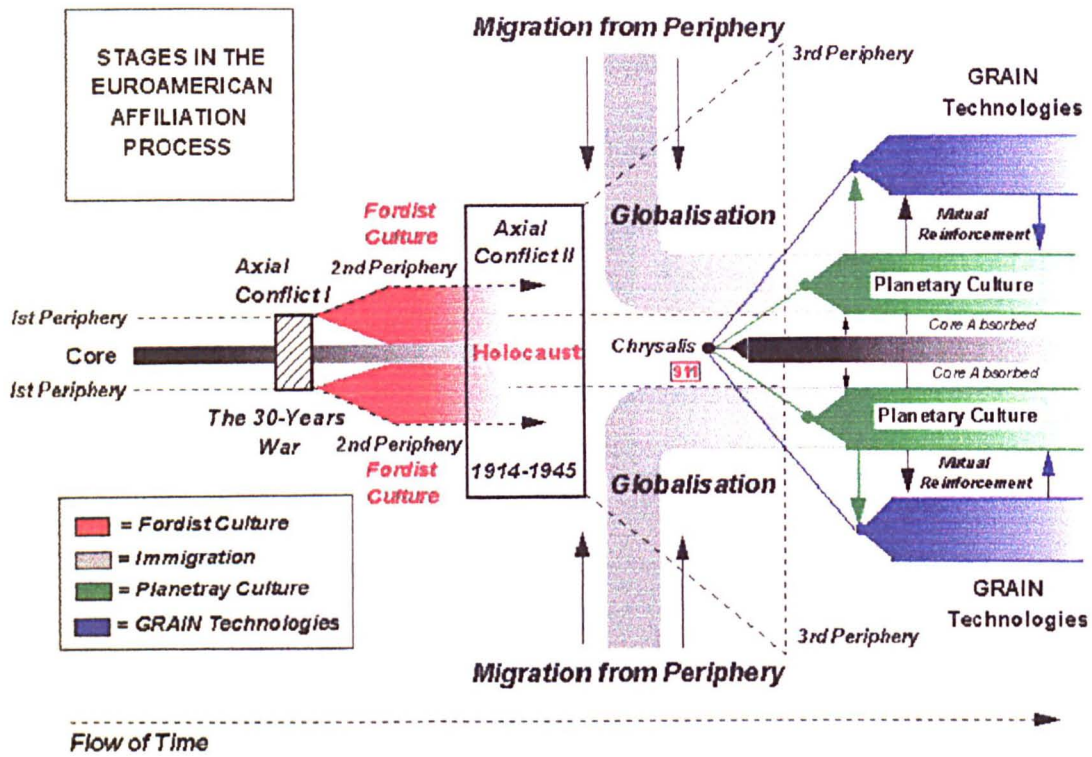
STAGES IN THE EUROAMERICAN AFFILIATION PROCESS

Fig. 9.4: The Euroamerican Affiliation Process

Fig. 9.4 shows two Euroamerican affiliation patterns and therefore two epochs of expansion, one primarily colonial, following the axial conflict of the first Thirty Years War and the second technological-economic, following the final axial conflict of the second 'Thirty Years War' - World Wars I and II - and the key trauma of the Holocaust - which effectively closed the cultural canon of the West. The GRAIN technologies may not only offer the technological substrate for a new chrysalis, but may also facilitate the speciation of radically different kinds of self-modifying entity at a level that is neither postmodern or posthistoric, but 'posthuman' (Goertzel 2004). This level is likely to generate a society that is metacomplex, polycentric, cyborganic and even ectogenically-reproducing - one where unconscious, quasi-random genetic evolution directed by natural selection would be replaced by conscious, self-directed memetic evolution with a clearly-defined supergoal and subgoal structure (Kurzweil 1999; Minsky 1986; Moravec 1988; Yudkowsky 2002). Relations with the archaic human level may be highly ambivalent (Satinover *op.cit.* pp.221-5) due to the psychospeciation stresses described in hypotheses 1-3 of chs. 5.6 and 6.9. Core catalytic agents of the posthuman level will therefore be especially sensitive to the necessity of minimising these stresses.

These agents will possess traits that only become possible through and emerge as a result of, a complete understanding of the evolutionary prescriptives and generic constraints to which the delimited and biologically contextualised instantiantion of consciousness known as 'human' is subject. These traits will enable such agents to

subordinate all private wishes, desires and fantasies to the exigencies of supergoal and subgoal realisation, and to permit the flexibility of structure that may be necessary in polycentric and metacomplex groups in order to achieve these goals. These traits will initially emerge through an optimal degree of intrapsychic process resolution at both personal and social levels, then become reinforced through integration with the self-enhancing, orthogonal and generalised intelligences created at the CMOS-nanotech interface. For such agents, inevitable absorption into the strata they catalyse may well entail resignation from their unique human identities in order to transcend the limits of that identity. Whether they will weep or exult in this transcendence will be their own affair.

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