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THE SELF IN EARLY CHILDHOOD:
A THEORETICAL REAPPRAISAL

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ABSTRACT

The proliferation of empirical work relating to the first three years of childhood makes the psychological study of infancy very complex. Scientists have restricted the areas of these studies in order to postulate about specific aspects of the behavioural development of the child. This differentiation is valuable in its detailed contribution to scientific inquiry. Its complexity brings with it, however, a need for a superordinate self-theory within which to subsume the parts of the whole personality, to relate them in an organized and hierarchical way and to keep open an observation of the self's furthest developmental parameters as a paradigm for individual psychology. The self construct, at the top of the hierarchical set of individual theoretical constructs, is the study undertaken here with particular attention to the self's special relation with the ego-processes in the first years of childhood.

The long human evolution of individuation has built up the genome, or programme for life, through links between the brain and germ plasm. As each individual organism is unique genetically and experientially, (containing the long evolution of the central nervous system), the organism uses its own germ plasm, linked to its own brain, in a unified or self-conscious and self-reflective way. The central nervous system relates the human being to biologically relevant aspects of the environment. It also devolves some tasks to a hierarchically lower unconscious integration.

A continuity within self-experience is strengthened by dispositions within the memory system to recall behaviour through an ego-related storage system (Chapter VII). But dispositions to behave unconsciously are also present and contain inbuilt tendencies of an archetypal nature (Chapter I). Inborn reactions are now being widely studied, e.g. the newborn baby's expectation of being fed. This expectant knowledge is a priori, i.e. prior to all observational experience and thus both psychologically and genetically a priori. The need to explain such phenomena has led to new hypotheses regarding the self and its ego-system in the first year of life.

The ego process has needed reassessment in its relation to the self construct. In general, the ego has been described in too simplistic a way and in widely differing ways. The ego-process proposed here is an original revision and conjunction of elements within Jung's and Freud's formulations, using Fordham's extension of Jung's self-theory and then extending these postulates of ego development still further into a new ego-process theory. An original term, 'con-integrate', is introduced. Con-integrates are a group of de-integrated ego aggregates which re-integrate in special systems of great significance within the ego processes.

It will be argued that a self theory is consistent with general experimental data (Chapters III, IV, VI and VII); that it is heuristically essential in analytical psychology (Chapter I), in the neo-Freudian contribution of Kohut (Chapter II) and to the theory of autism (Chapter III).

In general, self theories are supported by physiological analogues of the self (Chapter IV) and centrally important to neo-Kantian humanism, Mischel's cognitive models and to several dynamic construct models (Chapter V). Rychlak (1976) has defined self as "... a construct enabling the theorist to conceptualize the contribution made to behaviour by an organism which brings meaningful premises to bear from a protopoint (a premise taken as a beginning or fixed point by the self)". The term 'self' can be said to capture the impact of precedent meanings that partially determine ongoing behaviour (Chapter V). Self-premises can be varied or changing as the organism 'comes at' any one life situation. The multiplicity of premises possible to the self within a unit of time is an area psychology has yet to study thoroughly. Unconfirmed self-premises are repressed and return through dreams and in complexes where there is poor self-definition not under the individual's full self-control. The psychological uncomfortableness of a multiplicity of self-premises simultaneously present in the conscious and the unconscious gives cognitive, phenomenological, behaviourist and depth psychologists much to think about and to clarify theoretically. This study is an attempt to rectify this situation through a broadly based theoretical reappraisal of self theory and its implications for ego processes. A new theory of the ego is introduced.

Introduction

The etymologies of most words standing for the concept of the self as used in everyday language are obscure or unknown. The base of Anglo-Saxon self is selbha (Pokorny 1959) which contains within its root the symbolic union of separation and of belonging. Selbha is compounded of se meaning away, separated, for, or by, itself and bho which refers to cohesive totality, e.g. Gothic sibja; Old High German sippe, kin, kinsfolk, totality of one's own people; English dialect sib, related by blood; Latin Sabini, members of the clan; Indo-European suebho, belonging to one's own people, free; hence Russian o-soba, person, and Old Ecclesiastical Slavonic svoboda, freedom originally meant as the status of the members of the clan.

The other important root is poti, or self in the Indo-European languages. Thus Old Indian pati, lord or master; Greek posis, mighty; Old Latin potic sum, I can, potoir, I seize upon.

Two striking motifs emerge in the etymology of the self concept: one, that of belonging to a clan but associated with the notion of freedom and individuality: the other, that of omnipotence of the individual self.

For psychology, etymology cannot be more than a signpost for what ordinary persons mean when the self as an idea is mentioned. Psychology needs an overall conceptual definition from which it can argue and theorize. This would include a reassessment of the contribution from cognitive, behaviourist and psycho-dynamic schools bearing

in mind recent relevant evidence from physiological studies and from theoretical physics. The most broadly based conception from which to extend elements of self theory is that postulated by C.G. Jung, the Swiss psychiatrist and analytical psychologist. Jung's theory and that of the Freudian school will be thoroughly evaluated and a new model of the self's ego-processes attempted which is grounded on theoretical ideas from both major schools of depth psychology. The critical and empirical influence of other historical contributions of self theory will be considered. More specifically, the empirical evidence of infant and child psychology will be considered in proposing evidence for a new self/ego theory.

C.G. Jung worked throughout his life in reformulating a description of a theoretical self-concept and in 1959 stated one of its problems: "The concept of psychic wholeness necessarily implies an element of transcendence on account of the existence of unconscious components. Transcendence in this sense is not equivalent to a metaphysical postulate or hypostasis; it claims no more than to be a borderline concept" (Jung 1959b).

In general Jung (1928) contended that theories are the equivalent of primitive and myth-like elements from which they are derived. In 1946 he wrote: "Translated into the language of psychology the mythologem runs; ... the union of conscious mind or ego-personality with the unconscious personified as anima (an archetype) produces a new personality (the self) compounded of both". This conception maintains that theories are based on archetypal affects.

The archetypes of the collective unconscious, as projected into consciousness, are thought to bring affects which influence the formulation of 'self' postulates. Jung derived the idea of the archetypes from the archetypal images represented, for example, by the gods in mythological systems. Archetypes generally were introduced to account for regularities observed in dreams and imagination. Although Jung worked mainly with adults, Fordham (1976) observed that in studies of children evacuated from London during World War II the child's psyche was seen to be making a separate archetypal contribution, divorced from an intrusion of the parents' unconscious into the child's dream life. As well, the evacuated child's range of neurosis, behaviour disorder, psychosomatic diseases and psychoses suggested that more than the home, past or present, was responsible. Fordham has published his collection of children's archetypal dreams in The Life of Children (1944) and developed this theme in Children as Individuals (1969). Images such as the self can be easily observed in children's symbolic material and are widely reported by many therapeutic schools.

Fordham (1976) believes that the Jungian theory of archetypes brings body and psyche together because the archetypes are described as being unconscious states or entities having two poles: the one an expression of instinctual force and drives, the other expressed in the form of fantasies. The instinctual drives would be relatively few in number and fixed while the fantasy component "has wide and flexible applications". Therefore one is stating

theoretically that a child has a predisposition for developing archaic ideas and feelings which are neither only introjects nor are they implanted. Suitable imagery enables the unconscious archetypal ideas to find expression in consciousness.

Education presumably influences archetypal ideas and parents build on the child's archetypes when they mediate the culture patterns within which a developing organism is living. So there is both an outer (projective, introjective, identifying) and an inner (archetypal) influence which gives regularity to the affect associated to archetypal images. This interaction between unconscious archetype and traditional environmental components causes a reinforcement between the two aspects.

It will be necessary in tracing back the archetypes to early infancy to show how they are reflected in early physical object-relationships. The infant is first concerned with what is transmitted to his body, the quality of that experience and what he can do with these objects. Melanie Klein (1932) and her collaborators, such as Susan Isaacs (1948) and Paula Heimann (1955), define unconscious fantasy in terms almost identical with Jung's definition of the archetypes.

In this study the author assumes a neo-Kantian position: this is that from birth, or shortly before, the mind brings meaning-framing 'premises' or categories of understanding to what Rychlak (1976) describes as a 'pro forma' or going towards a formal sense. These are precedent categories, conceptual and not necessarily primarily constituted as in the Lockean model of tabula rasa upon which a stimulus-

response set is built up into a hierarchy of behavioural habits. The Kantian theoretical position and that of Jung when dealing with support of the idea of the self as a central archetype are very similar. Both Kant and Jung argued that we must bring things in mind down to empirical test. This allows, however, for a contribution from mind to the empirical result. A purely material and efficient-cause description, i.e. a mechanist explanation, is here rejected for a humanistic approach which comments from an introspective perspective and attempts to "see things the way the conceptualizing intellect sees them" (Rychlak 1976). Humanism contends that the individual self contributes to the flow of events and makes a difference. This contention is fundamental to this study of the self/not-self polarity in the early development of childhood.

A new model of the ego processes will be presented as a framework for further research. This self/ego model introduced by the author postulates an original conception of 'integrates' which have a special dynamic relation to the ego processes.

Chapter I. The contribution of Jung and the neo-Jungians

1. The Jungian background

The history of depth psychology as it evolved from the psycho-analysis of S. Freud to the analytical psychology of C.G. Jung has shifted from the personal reductive emphasis of Freud's work to a more distant goal of research leading to a phylogeny of the mind in Jung's theory of the psyche. Freud essentially looked at man in terms of his personal history and found in the child-parent inter-relationships the elements which determined the healthy and/or pathological development of the individual. This genetic and personalistic view led to an emphasis on childhood analysis. Jung, however, moved slightly away from a preoccupation with only the personal to look at a trans-personal factor in the psyche - the archetypes of the collective unconscious - which in Jung's theory determine man's development, aided or abetted by the temporal as it creates conflicts with the 'read-out' of archetypal material through the stages of life development from birth to death.

If emphasis is laid purely on empirical and clinical factors in depth psychology it can suggest the scientist may be unconscious of his own theoretical preconceptions. Jung was an empiricist but his theory of the psyche is constructed on both a grand and a rich scale. When empirical material is almost unmanageable due to its complexity as it is in the work about the psychology of early childhood, it pushes scientists to build theories that differentiate aspects or a part of the whole. But without a superordinate

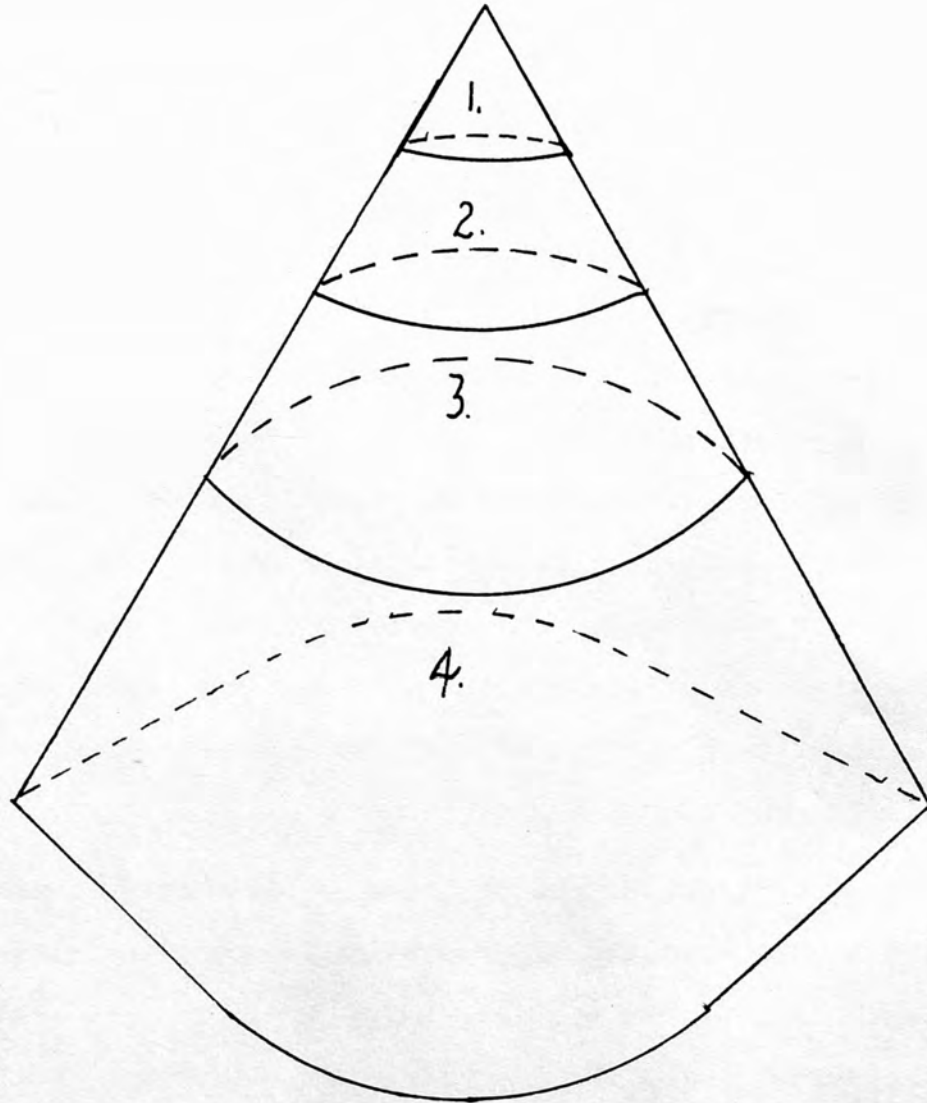
self-theory it will be difficult to keep open the furthest parameters within which scientific inquiry can properly move in the dynamic study of the first years of life.

2. The nature of archetypes

As the subject and object of cognition are of the same nature in the science of psychology, that is, both are interpreted by one and the same psyche in a psychological manner and then also studied psychologically, it can be said that any or all psychologies must share this difficulty. Jung came to the conclusion that beyond causal relations and manifestations in time and space within consciousness and the personal unconscious, there must lie a transpsychic reality, or collective unconscious where a relativation of time and space occur. Physics has investigated the discontinuities in subatomic processes and has also, within modern science, been confronted with the problem of the relativity of time and space.

Analytical psychology, formed on Jung's contribution and widely extended by others both before and since his death in 1961, is based principally on the study of the archetypes. Jungian psychology has an object to study and a method by which to study it. The object is the 'objective psyche' which Jung originally referred to as the collective unconscious. This part of the unconscious is held to differ fundamentally from more personal material which has been repressed into the 'personal unconscious' because of incompatibility in terms of its acceptability from the conscious standpoint. The personal unconscious is all that

Diagram 1. Diagram of the self.



1. The ego.
2. Consciousness.
3. The personal unconscious.
4. The collective unconscious.

(Adapted from Jacobi, 1962)

Freud postulated in his model of the unconscious. (See Diagram 1 for the Jungian schema of the unconscious). In the objective psyche or collective unconscious, there is a second kind of material, expressing primordial collective forms that influence the way conscious material is experienced and which have been compared by Jung to a crystal: "The form of these archetypes is perhaps comparable to the axial system of a crystal which predetermines ... the crystalline formation in the saturated solution, without itself possessing a material existence. This existence first manifests itself in the way of ions and then the molecules arrange themselves ... The axial system determines ... merely the stereometric structure, not ... the concrete form of the individual crystal ... and just so the archetype possesses ... an invariable core of meaning that determines its manner of appearing always only in principle, never concretely" (Jung 1939).

Jung views this unconscious material as fundamentally objective in the sense that its image in consciousness can be studied. When aspects of the collective unconscious become conscious, they can be discussed as elements of the objective psyche. Jung sees the psyche as just as suitable an object for scientific study as is the world of outer material fact. The archetypes or universal patterns of perception are contrasted in definition with the term 'archetypal images' which means symbolic manifestations and the pictorial expression of the archetypes. "These belong to the knowable realm of consciousness and occur as analogous motifs in myths, fairy tales, dreams, delusions, etc., at all times and in all parts of the world" (Jaffe 1971).

In 1936 Jung presented an unpublished paper in London at Bedford College where he elaborated his view of the collective unconscious. The archetype per se is an unknowable factor in the collective unconscious which underlies archetypal images and contents and arranges them into typical images and groupings. Such a structuring element would be comparable to a 'pattern of behaviour' in biology that also underlies recurrently typical life situations such as birth, change, illness, love or death. The phenomena of the collective unconscious are, unlike repressed material, transpersonal; unlike repressed contents which have once been conscious, they have never been conscious before but emerge as new to consciousness from the collective unconscious and are represented in images. "The hypothesis of a collective unconscious is just about as daring as the assumption that there are instincts" (Jung 1936). Instincts are likewise unconscious in functioning and transcend personal considerations.

The theory of the collective unconscious and its organs, the archetypes, is based on an assumption that the fundamental structure of the psyche is uniform. If we could eliminate the conscious, Jung believed there would be little or no difference between one human being and another (in the original unconscious psychological content). So Jung has postulated an unknown 'x', a psychoid archetype in nature, unconscious and having a hypothetical vital principle directing the behaviour of organisms out of which consciousness grows. When it appears consciously it is an archetypal image which is seen to be the mental representative of instinct and which transposes the instinct into a conscious experience.

Mindful of the distinction between the personal and collective unconscious, Jung criticized Freud's discussion of Leonardo da Vinci's picture 'St. Anne with Mary and the Christ Child'. Freud's explanation of the picture was based on the fact that Leonardo had two women who served as mother to him. Jung in the paper entitled 'Dual Mother' in Symbols of Transformation (1956) asserted that the dual mother theme is widespread, having motifs of rebirth, the dual descent or twice born, in which the culture hero has a double birth, one human and one divine. Jung's examples in amplifying this idea include myths around Heracles, the Pharaohs and Jesus: the rebirth ritual was used in medical healing at the dawn of civilization, is found in mysticism, in infantile fantasy and is a central concept in mediaeval occult philosophy. Jung concluded, "it is absolutely out of the question that all the individuals who believe in the dual descent have in reality always had (or experienced) two mothers ..." (1956). Jung also argued, using a neurosis where a patient appears to be deluded that he has two mothers, that the neurosis under review is not personal but a collective manifestation.

Jung began his formulation of archetypal theory in his work from 1908 to 1910 when he encountered unconscious contents in his patients which resisted integration into consciousness. This material was made evident in the dreams, symptoms and fantasies of patients. Jung was accustomed to receive from patients a projection of archaic motives onto himself as physician. These took the form of a transfer of the figure of the medicine man or magician onto the doctor.

These primordial images, a designation Jung took from a letter (circa 1855) of Jacob Burckhardt to a student, Albert Brown, in which Faust and other 'genuine myths' were first described as 'primordial images', were seen to have four regularly appearing qualities which Jung thought to be: repetition as a universal across races, constancy within the races, a fascinating effectiveness or numinosity setting archetypal images apart from other images, and regularity within each individual's life.

In Latin, 'arche' is the beginning or primary cause and 'type' is imprint. "The religious point of view understands the imprint as the working of an imprinter; the scientific point of view understands it as the symbol of an unknown and incomprehensible content" (Jung 1944b). Jung was not the first to be concerned with archetypal images. Plato in the Symposium described images, schemata and inherited functional possibilities such as a knowledge of universals that are supposed to be innate. In ethnology, the study of races and people, Adolf Bastian (1860) was the first to draw attention to the widespread occurrence of certain 'elementary ideas'. Hubert and Mauss (1898) called a priori thought-forms 'categories': "They exist ordinarily as posits which govern consciousness, but are themselves unconscious". Jung thought it a mistake to suppose that the psyche of a new-born child is a tabula rasa or blank slate in the sense that there is absolutely nothing in it. "In so far as the child is born with a differentiated brain that is predetermined by heredity and therefore individualized, it meets sensory stimuli coming from outside itself not with

general aptitudes, but with specific ones, and this necessarily results in a particular, individual choice and pattern of apperception" (1959a). Jung developed this idea when speaking of the 'child archetype'; "It is not the world as we know it that speaks out of his (the Australian aborigine's) unconscious, but the unknown world of the psyche, of which we know that it mirrors our empirical world in accordance with its own psychic assumptions". "The archetype does not proceed from physical facts; it describes how the psyche experiences the physical fact..." (1959a).

Archetypes contain essentially mythological facts which have numerous centres, or modal points. These essential groupings display themselves over and over again with the same ideas and functions. Some of the archetypes are the 'shadow', the 'wise old man', the 'earth mother' and the 'puer aeternus' to name but a few. They are best described metaphorically. The archetypes occur at an ethnological level as myths and their effect is strongest where consciousness is weakest and most restricted and where fantasy can overrun the facts of the outer world; "...this condition is undoubtedly present in the child ... the archetypal form of the divine syzygy (or conjunction of male and female) first covers up and assimilates the image of the real parents until, with increasing consciousness, the real figures of the parents are perceived - often to the child's disappointment" (Jung 1959a). Thus the psyche is seen as a self regulating system, the unconscious having compensatory capabilities to correct deficiencies in conscious adaptation.

The technique of analytical psychology has been to find means to raise the contents of the collective unconscious to consciousness and to interpret their meaning. The techniques of free association and dream analysis are too well known to need amplification here. Active imagination, used by the school of C.G. Jung, needs more definition as it is not widely understood. If imagination runs free a person may create a drama in which he plays a part, or he may create a dance or vision. This can also be expressed through the media of clay modelling, sand pictures, painting, carving and drawing. Interpreting the material necessitates the amplification of the material by the analogical method: Jung used the knowledge and viewpoint of antiquity to throw light upon the unconscious products of modern man. In a similar way the meanings of Egyptian manuscripts have been decoded by referring to archaeological finds of antiquity which occur in the symbolization of later language. Such insights and amplifications are used by Jungians to interpret symbols produced in dreams and fantasies. It is clear that Jung has expounded a theory of the unconscious and its interpretation totally different from Freud who conceived of the unconscious as an infantile phenomenon. In an interesting analogy, Fordham (1944) points out that in physiology nobody would assume that because both man and child have a heart, that it is an infantile organ. In tracing back fantasies of adults to childish roots, would the Freudians discard these experiences as merely infantile deposits? It is here with fantasy that Freud and Jung and their "schools" part company. Jung asserts that the whole of fantasy life is not

infantile but parts of it are an attribute of man in general in the same manner of Fordham's analogy: that the heart is an organ common to the human race at all ages. "The unconscious bases of dreams and fantasies are only apparently infantile reminiscences. In reality we are concerned with primitive or archaic thought-forms, based on instinct, which naturally emerge more clearly in childhood than they do later". These archaic thought-forms may contain personal factors but impersonal motives may have great significance as well (Freud and Jung 1974. See Jung's letter to Freud of 15 November 1909; 10 January 1910; 30 January, 1910). Jung argued that there are ageless motives in myths, fairy tales and in folklore including ever-repeated themes which point to the existence of symbols common to all humanity. This led Jung to assume that there were impersonal nuclear processes in the unconscious psyche - he confirmed this on the basis of collective archaic patterns, the archetypes.

a-1. Hereditability and archetypes

Freud had studied the phenomena of the unconscious entirely within terms of his theory of repression. He studied unconscious products historically and personalistically falling in line with the current view of the time that mind was an ontogenetic phenomenon, acquired in the course of individual development. Jung rejected the developmental source as the only basis of the archetypal images. He argued that archetypal themes in an individual could not have been in his consciousness before they emerged from the unconscious or that it was not the consequence of nurture.

He published extensive empirical proofs to support the contention in 'The Concept of the Collective Unconscious' (1936). It is with great caution however that Jungian psychology calls the archetypes hereditary factors. The notion that archetypes are the deposits of racial experience is emphatically denied by Weismann's (1893) theory of the continuity of germ plasm. As the body is a by-product of the germ plasm created by the union of the male and female cells, nothing that is acquired in a lifetime, in body or mind, has any effect whatsoever upon the germ plasm, i.e. all acquired characteristics die forever with the body. Thus inherited body structure changes or change in psychic organization originate only in variable gene combinations or their structural mutations. The environment does contribute to the appearance of physical characteristics in that, if an unfavourable environment occurs in the inter-uterine development, anomalies result. The only inherited factors are those within the fertilized ovum; everything else is the product of inherited factors and the environment together.

When it is said that archetypes are hereditary functions all that can be meant is that they are postulated to be somehow represented in the germ cells so that archetypal images in the conscious mind likewise contain within them the effect of genetic factors.

a-2. Instinct and archetype

Jung saw that if instincts are taken to be innate patterns of behaviours then archetypal images are comparable and represent the instincts in consciousness. In The Study of Instinct (1951), Tinbergen has investigated 'sign stimuli' which release patterns of behaviour which are initiated by a stable perceptual system within the animal e.g. the baby gull, called the innate releasing mechanism (IRM). This selects suitable stimuli from the perceptual field and releases the instinctual response. As the whole behaviour system is determined by this functional system it is more than a reflex mechanism. Reflexes are accepted as innate. In addition spontaneous rhythmic activities of the brain, the spinal cord and the autonomic nervous system take part. The central nervous system does not contribute special movements from stimulation, but the rhythmic activities of the central nervous system are released from an inhibitory influence by the sign stimuli acting through the IRM. Thus an innate neuro-endocrine system is the basis of instinctive behaviour.

Since archetypes are perceived in terms of acts and images, the organization of the brain must show a close relation to the organization and function of the archetypes. Neurologists have not always operated with the concepts of a neurophysiological substrate on the one hand and consciousness on the other; in the history of the eighteenth and nineteenth century, several neurologists, physiologists and psychologists, following Charcot's studies of dissociation at the Salpêtrière in 1878, became interested in the

possibility of unconscious brain influences. Despine published the view in 1868 that an automatic cerebral activity manifests itself without the participation of the self ('le moi') whereas the self is manifest by conscious cerebral activity. These ideas of "unconscious cerebration" as a physiological explanation for varying functions in different layers of cortical grey matter were picked up by Luys, Huxley and Maudsley. These theories were attacked by Bernheim (1884, 1888) as he found traces of 'le moi' still operative as a personal style in somnambulists and suggested this might be better explained by an increased speed of translating suggested image into action, than by an unconscious cerebration.

Already at the dawn of the eighteenth century Bichat had distinguished between central and autonomous nervous function. Du Bois Reymond and Helmholtz studied the speed of transmission of nervous impulse and learned that the stimulus impact and its registration are not simultaneous. Reflexes, studied in the nineteenth century, emphasized the unconscious aspect of reflex action in the subject. Bernard and Brücke as well as Du Bois Reymond and Helmholtz refer to unconscious homeostatic processes whereby body maintenance is regulated as to biological equilibrium. Breuer, Fechner and Spencer used the notion of physiological equilibrium as well as the psychological aspects of its effect. Flügel (1955) in discussing Spencer's psychology mentions the homeostatic principle in so far as "adaptation of inner relations to outer relations" aims at a state of equilibrium.

Galton (1879), in analysing word associations, inferred the importance of unconscious cerebration. Thus many eighteenth and nineteenth century scientists preceded Freud and later schools of depth psychology in postulating various forms of unconscious activity.

Concepts of cerebral activity including the idea that the cortex, with the subcortical ganglia and the network of association fibres, acts as a whole were put forward by Flourens in an 1842 paper, "Recherches expérimentales sur les propriétés et les fonctions du système nerveux dans les animaux vertèbres". His work on lower animals, e.g. rabbits, chickens, hens and pigs, enabled Flourens to study general faculties but not individual differences. On the basis of experimental results using ablation, he postulated a unity of the cerebrum proper and its functional abilities. Localization of perception, however split up or localized this might be when mapped on the brain, was found to be dependent upon the cerebral cortex as a whole. Lashley confirmed Flourens' generalization a hundred years later.

More recent work carried on research into concepts of wholes. A study by Head, Rivers, Holmes, Sherran, Thompson and Roddoch (1920) showed that patients having cerebral cortical lesions, that distorted their appreciation of posture and body-image, used a standard against which to measure all postural change that was not a visual or motor image; rather it lay outside consciousness and entered consciousness already in a relation to what went before and was directly perceived as a measured postural change.

A whole body schema is postulated as necessary for understanding body-image generally. Body-image was defined by Head et al. as an unconscious physiological disposition used as an ongoing standard of comparison for postural change.

Perception of wholes or universals relates to cybernetics (Wiener 1948) in a brain conceptualized as dynamic and purposeful and which is described in terms of reverberating circuits, negative feed-back, scansion and oscillation. Wiener defines reverberating circuits as a closed chain of neurons which can be set into impulse by a single incoming impulse. This impulse passes around the circuit until other incoming impulses change it or the metabolism no longer supports it. Negative feed-back indicates a system where activity within the system is modified when some part of the output returns as input again. Wiener uses the term 'scansion', derived from television, to mean a rhythmic sweep of impulses through the cortex; i.e. alpha rhythm has been thought of as the 'smoke' of the rhythmic sweep. Oscillation, as opposed to rigidity, is the correct feed-back state in a servo-mechanism where feed-back is set to maintain the system in an equilibrium. "Not only has extrapyramidal function and dysfunction been given a new explanation, but what is more important ... a physiological interpretation has been suggested for psychological processes, such as perception of universals..." (Meyer and McLardy 1950). These newer concepts of cerebral activity suggest that where higher more psychic activities of the brain are concerned, the cortex, the subcortical ganglia and the network of association fibres act as a whole.

If the theory of instincts leads to a concept of a nervous system containing innate patterns of energy (not only reflexes) then the analysis of the nervous system restricted to terms of reflex mechanisms is outdated; physiologists have introduced the concept of 'spontaneous' or self-activated rhythmic activity of brain cells. (This can be correlated with the rhythmic activity of the infant's earliest sucking activities).

a-3. Evolution and archetypes

The evolutionary theory of Darwin raises two problems which relate to the theory of archetypes. What origins do archetypes have and have archetypes undergone any evolutionary change? Jung (1953) believed that "... their (the archetypes) origin can only be explained by assuming them to be the deposits of the constantly repeated experiences of humanity". It is clear that on present biological theory these experiences cannot be inherited. The manner of experiencing the world, however, may be the result of changes in the germ cells. To align archetypal phenomena with what is known about heredity, one can say that primitive man experienced the world in terms of archetypal images as a consequence of archetypal activity in the unconscious. Once evolution is applied to man, the enormous development of consciousness is striking. Unlike most animals where evolution may fairly be described as almost 'blind', man has transmissible variants which genetically produce anatomical changes (the upright posture), new physiological processes and new instinctual patterns. Variants survive

or fall by natural selection. As transmissible knowledge is non-inheritable, so schools have developed everywhere to make secure the available traditions and influence the consciousness of history. Elliot Smith (1933) of the diffusionist school of anthropology, in postulating that the essentials of civilization all began in Egypt and then diffused outward from this single centre, forgets that diffusion depends upon the local consciousness of any area. If that consciousness is not developed enough to make use of advances from elsewhere there is no soil for the seed. No explanation of how assimilation of new concepts takes place is as convincing in the present state of knowledge as the way in which the C.G. Jung school redefines the problem theoretically: that the conscious originates in the unconscious. It has its first expression in images, dreams, inspirations, etc. The archetypal images take a major place and become eventually systematized as knowledge.

Jung believed scientific theories themselves can be based on quasi-mystical experiences. Pauli (1955) discussed the influence of archetypal ideas in the scientific ideas of Kepler. Pauli argues that scientific ideas and theories have developed beyond the possibility of experience. It accordingly becomes necessary to question the nature of the bridge between sense data and conceptualization of it. Pure logic has not been able to construct the bridge so Pauli suggests that the process of scientific discovery is not based upon perception on the one hand and the elaboration of logical construction on the other. He says, "The process of understanding nature ... seems to be based on a

correspondence, a 'matching' of inner images pre-existent in the human psyche with external objects and their behaviour" (1955). Pauli believed the 'inner images' relate to archetypal image and that scientific theory is the abstract equivalent of these archetypes: "...the archetypes thus function as the sought-for bridge between the sense perceptions and the ideas and are, accordingly, a necessary presupposition even for evolving a scientific theory of nature" (1955). These ideas retain reason and logic in scientific discovery but throw into question its rationalistic basis. Rationalism has kept this bridge between the sense data and its conceptualization unconscious and Pauli uses Kepler as an example of a religious nature that ran side by side with abstract scientific concepts. At the root of discovery lies an archetypal form that does not change: what does change is the form or image which it is given. Kepler's scientific discoveries reflect religious doctrines of great antiquity. What matters is where man's consciousness is; "...dream the myth onwards and give it a modern dress" (Jung 1951).

B. Symbol and myth

Jung observed attempts at myth-making in children and from this he originated the hypothesis of a creative urge toward mythology in the psyche, a condition to which Freud objected. Jung saw a profound tension of opposites in the meaning of symbols (such as God and the Devil). In a dynamic context this led to transcending the opposites while in content the presence of analogies facilitated symbol formation. Jung was unable to accept Freud's

hypothesis that fantasy was distorted and falsified phenomena. Jung found the Freudian conceptual framework unendurably narrow. "Besides the obvious personal sources, creative fantasy also draws upon the forgotten and long buried primitive mind with its host of images, which are to be found in the mythologies of all ages and all peoples" (1956).

The content of any particular image raises questions that are reflected in the protean use of the word symbol. Stein (1957) points out the derivation of the word: "... sym, i.e. syn, which means 'together, common, simultaneous, with, according to', and bolon which means 'that which has been thrown', from ballo, 'I throw'. 'Symbol' thus means something perceptible as the result of an activity which throws together such things as have something in common, and in such a way that one thing somehow accords with another not presented to the senses and is synchronous with it". Definition is difficult. Recently neurophysiologists have called images symbolic. When it was discovered that the stimulated neurons in the brain form patterns on the cortex unlike the shape of an object under observation, its perceptual image was realized to be inferred and thus symbolic. In ancient Greece symbols were tallies. This brings us closer to Jung's definition of symbol. Tallies were, "halves of two corresponding pieces of a bone, coin, or other object which two strangers ... broke between them in order to have proof of the identity of the presenter of the one part to the other... The symbol, the broken off part,

is not a separate element, but carries with it and points to wherever it goes, the whole in which it has participated as well as the situation in which it was broken in half; when it is 'thrown together' and matched with the remaining half the whole has value because the symbol grips the two opposites together and so can convey - not create or apply - this value" (Stein 1957). This prepares us for Jung's definition of symbol: "... the symbol always presupposes that the chosen expression is the best possible description, or formula, of a relatively unknown fact; a fact, however, which is none the less recognized or postulated as existing" (1923).

Another aspect of perception is myth. Kerenyi (1951) discusses the concept of mythologem, a word denoting the core-concept of a single myth or of a class of myths. An example of a mythologem would be the 'divine child' under which Kerenyi subsumes Buddha, Cupid, Dionysus, Jesus, Krishna, Hermes, Strong Hans, Tom Thumb and others. "In a true mythologem ... meaning is not something that could be expressed just as well and just as fully in a non-mythological way. Mythology is not simply a mode of expression in whose stead another simpler and more readily understandable form might have been chosen" (Kerenyi 1951).

Jung (1950) takes the position that the psychological meaning in myth comes from the archetypes as expressed in the archetypal images corresponding to Kerenyi's mythologems. But Jung goes further and suggests the archetypal image alone is not the symbol. He thinks the conscious is also involved as data from every psychic function enter into its composition. In Jung's view a symbol prevents a clear-cut

observational and intellectual process as the observer gets drawn into his objects and they invoke his whole conscious activity until he is "thrown together" into a unity. The symbolical experiences of wholeness revive again and again. This wholeness is not known outside symbolic expression but it can be thought to relate to child images and the self images. The root meaning of symbol does carry a reference to the concept of wholeness "as an integrate of all those contradictory and incomprehensible elements, which when thrown together, make the whole man" (Fordham 1957).

Children can be studied in relation to their parents and to the mythological world as well. As the child grows nearer to his inner nature via experience with the archetypes, these developments can be seen by adults as part of the child but at first are felt as something quite other than himself. The child does not have the necessary control over these unknown symbolic forces he feels and parents need to mediate the child's experience of the unknown; this includes both the influence of outer objects and events plus the inner influence of archetypes and myths. All of these factors make up the growing personality.

All analytical schools would accept that the fundamental goal of a child's development is to establish himself in the world. The goal of childhood can be compared to the goal of individuation.

c. Individuation in childhood

The origin of Jung's viewpoint concerning individuation can be traced to his theory that volition and cognition alone cannot account for emotional elements which create paradoxical behaviour and make understandable the unconscious tendency towards telling a lie, self-deception and slips of the tongue. Jung (1928): "Over against the polymorphism of the primitive's instinctual nature there stands the regulating principle of individuation. Multiplicity and inner division are opposed by an integrative unity whose power is as great as that of the instincts". Jung always retained a concept of the total personality whereas Freud persisted in a world view based on determinism and a measurability of events and hoped to explain everything by the elementary mechanisms of repression, projection and condensation. Jung was concerned with the relationship between the partial and total personality and envisaged a totality so as to understand the particular from the whole. Thus he saw the tension between the tendency to dissociate and the inclination towards unity characteristic of life processes. Jung's investigation of fantasies arising from the unconscious enabled him to demonstrate empirically that the image sequence not only exhibited a disorderly variety of dissociated fragments but at the same time showed a tendency towards a gradual integration. Individuation was again defined by Jung in 1934: "It is the process of forming and specializing the individual nature; in particular, it is the development of the psychological individual as differentiated from the general collective psychology ...

Before individuation can be taken for a goal the educational aim of adaptation to the necessary minimum of collective standards must first be attained". At individuation, a person has to withdraw the projections of the collective psyche so they can be considered in relation to the individual and not just accepted passively as what everybody does, thinks and feels.

The child, however, does not need to give deep consideration to what is generally accepted (Fordham, 1944). Thus he can leave a large part of his psyche projected into the world. Young children may fight social, political or religious views for personal reasons but not because their individuality is at stake. Children tend to take a collective or one-sided view, as an individual standpoint involves becoming free from one-sided tendencies through a symbolical solution which would require that opposites be given complete equality. Jung, 1923: "... when the opposites are given complete equality of right, attested to by the ego's unconditioned participation in both thesis and antithesis, a suspension of the will results ... life cannot tolerate suspension ... which would lead to an insupportable condition ... did not a new reconciling function arise ... beyond the opposites" (individuation). Individuation is contrasted with the goal of childhood which is strengthening of the ego development; adult individuation requires a temporary non-ego position allowing integration with the self. To do this it is necessary to relate to the archetypes.

In the adult, as in the child, individuation can be otherwise expressed as the realization of the self. If the drive towards individuation is a spontaneous urge, "not under the leadership of the ego, but of the archetypal movement in the unconscious" (Perry 1953), or non-ego, this is a specific and basic pattern of the individual. Individuation strives toward wholeness and totality developing the specific potentialities that form the particular personality. This unconscious dynamic matrix lies waiting for the ego to understand and incorporate these potentialities. Although Perry is arguing here for an innate teleological process starting from the unconscious, Fordham, 1958, argues against this view. He believes evolutionary theory cannot support individuation as an instinctive or innate process but it can support it as an extension of the ego. Fordham believes a child may be conscious of symbolic images of the self but that he cannot realize its implications. This dynamic development of self is seen as dependent upon the reaction of the unconscious to what is primarily ego activity. Therefore Fordham (1976) sees individuation as an extension of the ego reaching out and assimilating the archetypal movements of the unconscious as well as separating subject and object and then consciously integrating-deintegrating this potential which is postulated to contain the symbolical solution pointing towards individuation.

In Psychological Types (1921) Jung describes individuation as a process of differentiation with its goal the development of the individual personality. "Individuation is orrectically the same as the development of consciousness out of the original state of identity which is ... the original non-differentiation between subject and object". Fordham (1967) argues that by the age of two the infant has achieved a state of physical control over body activities which are "correlates and sometimes the expression of psychic operations". After birth the infant, during the first weeks, develops a state of 'identity' with his mother and the environment. This identity is not primary, but develops through fusion with the mother. It is inferred that the baby only fuses with those parts of the environment that correspond almost exactly to his needs; other events appear not to exist for him. This is confirmation of the theory that the primary unity of the self (expanded in Section 3) exerts a conservative influence. This phase is superseded by the omnipotence of object relations over all else as archetypal forms deintegrate more clearly out of the self and gain expression in perceptual imagery. The mother-infant unit is the most important area of study and in the section to follow on deintegration its development is discussed at length. Here it will suffice to say that the days have passed when the infant can be thought about either as only a physiological unit or just as an auto-erotic being. He is now seen as a psychosomatic unity relating increasingly through the first two years to all objects with his libidinal and aggressive drives. The infant uses his developing

imagery by deducing and evaluating experiences with his thoughts and feelings. "The achievement of a physical control over bodily activities means that the two-year-old has also grown psychically out of the state of identity into a separate being with an individual unit status" (Fordham 1976).

On this basis it can be asserted that by the age of two an infant can achieve the essential elements of childhood individuation, "...he has emerged from a primitive, ruthless way of living to become a person who can show concern for others; he has known love, hate, fear, grief, sadness; he has the basic rudiments of a conscience, and he has developed a clear distinction between internal and external objects, which he evaluates as good or bad; he distinguishes an inner world from the outer; ...he has developed true symbols that express his inner life" (Fordham 1976).

Thus Fordham makes a strong case for using the term individuation for the developmental process in the first two years of childhood which Jung introduced referring only to the adult stages of individuation.

2. Jung's theories of the self
- a. Self as totality

Jung developed two theories of the self: 1) a 'totality' theory and 2) the 'self-as-archetype' theory (p.34 ff). The origin of the totality theory of self came from oriental formulations concerning 'atman', which is regularly translated as 'the self' in English. In Psychological Types (1921) Jung

discussed atman in a footnote; "Brahman is the designation generally applied to the Supreme Soul (paramatman) or impersonal, all-embracing, divine essence, the original source and ultimate goal of all that exists". Putting the oriental view into a psychological frame of reference makes the self an organized wholeness of the personality. This is expressed in symbolic experience which is transpersonal and transcends the incompatible opposites of which man both psychically and physically appears to be composed; e.g. psyche, soma; ego, non-ego; inner, outer. Another source for the self-as-totality concept seems to grow out of Jung's idea of a transcendent function (1916). "The shuttling to and fro of arguments and affects represents the transcendent function of the opposites. The confrontation of the two positions generates a tension charged with energy and creates a living, third-thing - not a logical stillbirth in accordance with the principle tertium non datur, but a movement out of the suspension between opposites, a living birth that leads to a new level of being, a new situation". This is manifested as a quality of conjoined opposites and is closely related to the theory of the symbol which by uniting opposites becomes the union of the conscious with the unconscious. Jung posits nothing metaphysical in considering the lack of parallelism between conscious and unconsciousness needing unity.

Jung sees one functional aspect of the self to be the meeting place of all opposites and their synthesis. Redfearn (1977), a neo-Jungian, states: "The image of opposing entities meeting, with the liberation of great energy,

good or bad, is so all-pervasive that it is hardly possible to exaggerate its universality and importance. This is the energy underlying, for example, primal scene excitement at its most archaic level, schizoid splitting and defences, the illuminating or blinding properties of the God image, and the individuation process".

An example analogous to this general idea would be how easy it is today to see in society how little people are able to let the other man's argument count, although this capacity is fundamentally indispensable to a peaceful national or international community. To the degree that one does not admit the validity of the other person, he denies the 'other' within himself the right to exist, and vice versa. The inner dialogue of conscious and unconscious, which the transcendent function can enable, is a "touchstone for outer objectivity". "Thus, in coming to terms with the unconscious, not only is the standpoint of the ego justified, but the unconscious is granted the same authority (e.g. in Jungian interpretation during psychotherapy). The ego takes the lead, but the unconscious must be allowed to have its say, too - *audiatur e altera pars*" (Jung 1916).

As early as 1921 the totality definition had discriminated between the ego and the self. Jung states that the self "embraces and includes the ego" as well. It is important to distinguish the empirical ego, i.e. the ego as experienced, from the spontaneous images of imagination or non-ego. Thus Jung saw the ego as a part system,

i.e. one system among others of a different kind. His formula expanded to 'self equals ego plus archetypes' which equates with the usual definition of the self as a combination of the conscious (ego) and the collective and personal unconscious (archetypes and personal repressed material).

To clarify this position I quote from Fordham, (1963): "If the self is the whole psyche, then it cannot be observed as such by the ego, since the ego is contained in it as a part and there is hence no observer. It is only when the unity is de-integrated and when some part of the ego stands separate from or only participates up to a point in the rest of the whole that data about the self can be collected. The data are called 'symbols of the self'".

The self as 'unknowable' became a position taken by Jung in a passage in "The Holy Men of India" (1944): "India is 'prepsychological': when it speaks of the 'self', it posits such a thing as existing. Psychology does not do this ... though very well acquainted with the self's peculiar and paradoxical phenomenology, we remain conscious of the fact that we are discussing ... something essentially unknown and expressing it in terms of psychic structures".

However by deriving inferences from the data of each incomplete symbol, it does seem on reflection that a theoretical construct, not testable more directly than with the derived symbolic material, can be made.

The self as a whole would then remain inexperienceable rather than unknowable in a theoretical sense. There is, too, the question of hypostatizing a scientific thought, i.e. treating a scientific inference as if it were a known empirical fact. Jung implies hypostatization when he describes individuation as 'realization of the self'. Jung seems to mean that inner experiences are to be given equal status with the facts of the external world. It is clear and fair to say, I think, that the self as a concept of totality is particularly difficult to construct as the archetypal images cannot be the actual self but only representative of it. These images or approximations can only represent states of relative wholeness. Only if bits of the ego are split off and function as observers of these images can the self be inferred.

A further problem may well remain. That is the relation of the ego or conscious 'knowledge' to introspection and its report, such as in association to dreams or other images that persons discuss, and Freud's famous fear that introspections are rationalizations. Nisbett and Wilson (1977) found evidence that suggests there may be "little or no direct introspective access to higher cognitive processes". Subjects tend to give reports based on a priori, implicit causal theories, or to judge if what they report seems "plausible". Nisbett and Wilson conclude that introspection will be more accurate if influential stimuli are salient as plausible causes of the responses they produce. Tversky and Kahneman (1974) agree that if a stimulus seems "representative

of the kind of stimuli that influence the response in question, the stimulus is reported to have an influence on the response, otherwise it is thought to be non-influential".

Wason and Evans (1975) assume two processes: a type I process underlying behaviour and unavailable to consciousness (like Jung's archetypes), and a type II process underlying protocols and available to consciousness (like Jung's ego-bits that interpret the archetypes in the earliest ego development in infancy). The relationship between these two processes is theoretically developed by Fordham's de-integration theory (see Section 3). Valentine (1978) points out that the relation between these two types of processes (unconscious and conscious) is one of the least investigated problems in psychology. It has, of course, been the underlying theoretical and empirical preoccupation of Jung and later his 'school' of analytical psychology since about 1920, but is often ignored by other workers in psychology.

Another aspect of conscious report is the influence of subliminal perception in introspection. Acceptance of subliminal perception has largely rested on methodological innovations in the form of signal detection techniques and dichotic listening procedures (Wilson, 1975) and persuasive theoretical arguments by Erdelyi (1974) which derive the subliminal phenomena from notions of selective attention and filtering. Many more stimuli are apprehended than can be stored in short term memory or transferred to long term memory. So subliminal perception which was previously

regarded as paradox - how can one perceive without perceiving? - would be a logical consequence of selective filtering. We can perceive without remembering. Some stimuli may affect ongoing mental processes, including higher order processes of evaluation, judgment and behaviour initiation without being registered in short term memory or, in any case, without transfer to long term memory. This also indicates that where subliminal perception is operating, subjects might not be aware of influential stimuli, and therefore that these stimuli are unconscious: this brings us back full circle to Wason and Evan's type I process unavailable directly to consciousness and to Jung's archetypal construct of the collective unconscious.

B. The ego-self relationship

The ego-self relation needs further elucidation. Ego theory has been much argued by and among Jungians. Basically, Jung (1921) described the ego as "a perceptual system which has affective roots in the unconscious". He defined the ego as both a relatively independent centre of consciousness, the agent of repression and both the internal and the external defence systems. Jung postulated an unconscious ego, or 'shadow', using this metaphorical term as he always did for unconscious contents. In general the ego is seen as needing its shadow for the stability of the psychic system. As the shadow is collective or archetypal the ego innately emerges from it at least in part. Early in childhood the perceptual and integrative functions of the ego become differentiated from the essentially unconscious archetypal structures.

Both ego and archetypes are part systems subject to the purposive aims of the whole organism. Indeed Storr (1955) compares the homeostatic systems of the body to the way in which the infant's developing ego discriminates between internal and external controls, mediating and modifying both. The conscious ego and the archetypes relate in a compensating and therefore rather homeostatic manner.

Arguments have arisen over the way Jung uses both metaphor and abstraction in his description of the self and the ego: "The term 'self' seemed to me a suitable one for the unconscious substrate, whose actual exponent in consciousness is the ego. The ego stands to the self as the moved to the mover, or as object to subject, because the determining factors which radiate out from the self surround the ego on all sides and are therefore supraordinate to it. The self, like the unconscious (archetypes), is an a priori existent out of which the ego evolves. It is, so to speak, an unconscious prefiguration of the ego" (1959b).

Fordham (1960) points out that the phrase above (which I have underlined for clarity of reference), "moved to the mover", is metaphorical and that the phrase, "The self ... is an a priori existent" is an abstraction. This distinction is important. For Neumann (1955) began writing about the ego and self as two separate entities. If the ego is defined as a part of the self it cannot be a separate entity. What Neumann does is to abstract Jung's metaphor in his theory so that the self does not equal the ego plus the unconscious, but the ego is discussed as an independent aspect not contained within the self.

Following in this theoretical confusion, Edinger (1960) describes the task of the child at first as one of separating out the ego from the self. He then suggests there is a repeating tendency to alternate between self-ego union and self-ego separation. Thus all development is seen as a continuous dialectic between the ego and self leading paradoxically to both greater separation and greater intimacy. This implies that the ego has functional autonomy which Neumann also believed. The paradox would be that if the ego is autonomous it would become 'inflated' and on the other hand if it is dependent and determined by a super-ordinate force it remains 'irresponsible'.

But Fordham (1960) points out that the paradox may be removed by considering the self not so much as a total integrate, i.e. conscious and unconscious, but as an ordered number of systems that result from division of the integrate into part systems all subject to the functioning of the organism as a whole. In infancy there is assumed to be a total integrate which may be considered the original state of the self. This de-integrates in instinctual experience conceived as a release mechanism (Fordham 1957). "The result is intense perceptual stimulation and as one result the ego starts to separate out and develop. At the end of any particular instinctual experience the organism integrates again and in this way the experiences become built into the whole organism". In the Jungian view, the archetypes, being the instincts and their unconscious fantasy representations, are also thought to separate out from the integrated whole, as does the ego, in the instinctual experience. They also integrate again afterwards.

Piaget in Insights and Illusions of Philosophy (1972) is critical of pre-reflective experience as a notion and he sees a contradiction between the idea of pre-reflective experience as the origin of knowledge and the unchanging background for acts of interpretation (such as archetypal material), and the idea that intentional consciousness (ego) is continually creating new meanings during development. Jung, however, sees no real contradiction in that Jungian interpretation of the symbolic images of archetypes is rightly determined by the developmental status of the individual and the appropriate level given the interpretation given this development. With this qualification of interpretation there is no problem posed vis-à-vis an unchanging unconscious archetypal given as the theoretical source behind symbolic material. The Jungian view is that the self-images symbolize a central integrative system and the self is thus seen as something like a central ordering system. Jung contended that the ego might be able to take over all of the pattern contained in the self briefly but that it is ultimately subordinate to it.

C. The self-as-archetype theory abandoned

The second of Jung's theories of the self, the 'self-as-archetype', causes a contradiction. In Aion (1951) Jung writes: "... the self is the real organizing principle of the unconscious, the quaternity, or squared circle of the self". Jung ambiguously implies here that the self is an archetype of order, or may be seen as an organizing principle, or may be the totality of the archetypes. The question

immediately raised is does Jung mean the self is not the whole psyche-soma, as the ego is here left out altogether in the self-as-archetype theory? The ego has been specifically differentiated from the archetypes in Jung's general theory of the psyche (self equals ego plus archetypes). In tracing Jung's confusing discussion between these two definitions of the self we see that in Aion (and also in 1944b, 1954 and 1959b) he refers to the self as an archetype (the second definition) repeatedly but also says: "I have suggested calling the total personality which, though present, cannot be fully known, the self. The ego, is, by definition, subordinate to the self and is related to it like a part to the whole" (the first definition: self-as-totality).

Curiously the concept of the self as an archetype began after the idea of it as the totality of the psyche in Jung's writings. The archetypal theory was published in 1919, two years before Psychological Types (1921) where the first definition of the self appears; "... the self is my totality ... hence it includes the unconscious psyche". Attempts to deal with the two definitions are several. Perry (1957) in studying schizophrenia recorded self images neither related to integration nor to individuation. Perry argues that the archetype lying behind the images should be termed 'central archetype'. Jung (1958) considered this, "... a central archetype ... which I have called the archetype of the self". Both Perry and Jung observed that self images occur in abnormal chaotic states when the relation between the ego and archetypal images gets diffused and the play of fantasy may go beyond normal psychological limits.

There are passages where Jung combines the idea of self as totality with that of the self-archetype. In Aion (1951) he writes: "... definable psychic contents emerging from the unconscious indicate the psychic totality of the individual. They indicate the presence of an archetype of like nature, one of whose derivations would seem to be the quaternity of functions that orient consciousness (thinking, feeling, intuition and sensation). But, since the totality exceeds the individual's consciousness to an indefinite and indeterminable extent, it invariably includes the unconscious in its orbit and hence the totality of all archetypes. But the archetypes are complementary equivalents of the 'outside world' and therefore possess a 'cosmic' character".

Jung mixes metaphor and abstract statement and slides from one level to another throughout his writing. Nevertheless, neo-Jungians have considerably cleared confusion by careful study and re-evaluation of Jung's ideas. What is perhaps most important in the Jungian theoretical definitions of the self is to bear in mind that the self contains opposites. This is not a paradox since the whole is not an opposite of its parts, but it is true that formulations about opposites may need to be stated paradoxically. Actually neither the totality theory nor the archetypal concept refers to the contents of the self directly, but to its place in the theoretical model of the psyche.

A possible revision concerning Jung's two theories of the self has been suggested by Fordham (1960). The self-as-totality theory is seen as an abstract theory of the whole

personality. In dealing with a whole, we define a totality which can be seen in several different states such as integration, deintegration and disintegration. We can add an entity into, or subtract an entity out of, the totality theory in the sense that the theory distinguishes a total integration from the joining up of psychic fragments by the ego. "The self as a totality also gives a theoretical limit to life, i.e. the organism starts from a unity (the original state of self in infancy) and ends as a unity at the end point of individuation; these two states are outside experience" (Fordham 1963). The total self theory can form a basis for a full developmental theory in that it persists through life.

To supplant Jung's unsatisfactory self-as-archetype theory, Fordham proposes a central archetype of order (1963). It is assumed that each archetypal image contains an ego fragment which renders it conscious. This ego fragment can become linked with the ego centrum (or ego as the centre of consciousness in Jung) in a process which involves unconscious integrating functions. The advantages of a theory of a central archetype of order, postulated as the unconscious system behind conscious ego-formation and as a part system of the self, to replace the self-as-archetype are several. It leaves the ego the position in theory it has always had throughout Jungian work. A central archetype can theoretically be included among the other archetypes operating with the same ability to be introjected,

projected, assimilated to other unconscious elements, or identified with the ego consciously, etc. The central archetype would be thought to express itself in images depicting wholeness and transcending and uniting opposites in close relation to the central ego. (Its role in important development will be discussed in Section 3). The self-as-totality would remain the principal definition for Jungian self-theory and the self-archetype would be abolished in favour of the more subsidiary central archetype of order. This would be included within the basic archetypal structure Jung has proposed and the separate ego structure that make up the self.

3. Fordham's de-integration concept

2. The childhood ego

Inclusive to this view of the central archetype but deserving attention in its own right is Fordham's (1951) view of deintegrates, a term he created to extend the self theory into its development during infancy. It will be helpful in considering the background to the de-integration concept to develop the Jungian view of the ego's origin in childhood.

Jung saw the psychic development of children centering mainly around ego formation within natural growth. He believed the origin of the conscious ego was the unconscious. "The greatest and most extensive development takes place during the period between birth and the end of psychic puberty ... This development establishes a firm connection between the ego and the previously unconscious psychic processes, thus separating them from their source in the unconscious. In this way the conscious rises out of the unconscious like an island newly risen from the sea" (Jung 1954).

The archetypes, as organs of the unconscious and possibly bound up with the functioning of the central nervous system are assumed to be formed before birth when the brain is formed. Jung originally thought that archetypal images in children's dreams and fantasies, because of their adult nature, related to the parents' psychology. But later Jung came to believe that children were expressing their own archetypal images which had an apparently adult character. In The Development of Personality (1954) Jung says: "The child's psyche, prior to the stage of ego consciousness, is very far from being empty and devoid of content ... The most important evidence ... is the dreams of three- and four-year-old children, among which there are some so strikingly mythological and so fraught with meaning that one would take them at once for the dreams of grown-ups, did one not know who the dreamer was". And further: "These archetypes of the collective psyche ... are the dominants

that rule the preconscious soul of the child and, when projected upon the human parents, lend them a fascination which often assumes monstrous proportions".

Archetypal images in childhood dreams, play and fantasy and in their pictures and sandplay are relevant to children themselves. Children unceasingly demand repetition of fairy stories and folk tales. This natural phenomenon represents the activity of archetypes within the child, and has little that is pathological or especially adult about it. It is very hard to eradicate in much parental experience. Jung describes children under the influence of archetypes as preconscious, here designating a state of consciousness in which the ego is very weak. Jung also believed that the images that represent unconscious vitality are high in libido. The general Jungian concept of libido is that this term includes all available psychic energy, it does not refer only to sexual energies as in Freudian terminology. These highly energized archetypal images are described by Jung as 'numinous'. With a more developed or organized ego formation a more strongly coherent and conscious mind ^e emerges. A progression is postulated from unconscious to preconscious to an organized conscious mind.

In the child, Jung thought that the unconscious and preconscious stages included a primitive identity which he referred to as 'participation mystique'. Jung thought that since identity derives at the start from the unconsciousness of the small child, this suggested a non-differentiated state. Without a clearly developed ego, the child cannot distinguish whether events belong to him or to another. All that is felt by the child, in Jung's view,

is that someone should be affected by emotional reactions which become infectious to anyone in the vicinity, often involuntarily. The weak ego consciousness does not allow the child to yet say; "I am not reacting as you are because I am not you". The child doesn't know clearly his own ego separateness so this primitive identity enables the unconscious of parents to enter the child's psyche where children act out or interiorly live through the problems of their parents. Thus the concept of ego boundaries are hazy in the early stage of primitive identity and no boundaries of the self are apparent. This is clearly different from later more conscious identification with parents, as a part of cognitive development and of emotional feeling.

In infants, Jung traces libido as manifesting itself initially in the nutritional zone. By sucking, food is drunk with rhythmic movement. Contiguous with the first period of breast feeding there is rhythmic movement of arms and legs. This model of rhythmic movement moves to other functional zones and produces pleasure with sexuality its ultimate goal. Other body openings become an object of interest, then the skin. Rhythmic movements extend to picking, boring and rubbing. Rhythm may influence the sexual zone and the first attempts at masturbation begin. Jung saw the period from birth to the first clear manifestations of sexuality as the 'presexual stage'. When the rhythmic activity no longer relates to breast feeding in the nutritional phase, it transfers itself to sexuality.

It is assumed that in the act of suckling and while excreting that infants experience various fantasies which they cannot separate out from the physical experience. Jung sees these fantasy systems as preconscious and expressing archetypes. Libidinal zones, on this basis, are seen as preconscious centres of awareness having primitive images that form themselves into the first ego fragments. A linkage between libidinal zones is necessary for differentiated ego functions. These zones or preconscious centres will be described below as aspects of the original self which Fordham has named 'deintegrates' which have a tendency to unite as they are derivatives of the archetypes of wholeness.

It is justifiable to set out these arguments as if there were no real parents or real environment because we are discussing the states of awareness of infants. The concept of having parents develops very gradually, as an image, to the baby. They have not appeared within the infant's scene as persons distinctly apart from himself.

Fordham (1957) argues that the development of consciousness in the child violates an original condition of wholeness and postulates a primary integrated state at birth. Although psychologists are ready to recognize that infants' important reactions are total ones of 'self reactions' in the undifferentiated but complete sense, the current dichotomous nature of biological and psychological concepts makes it difficult to conceive of a state previous to descriptive units like psyche, soma; self, environment; mind, body; ego, non-ego; conscious, unconscious.

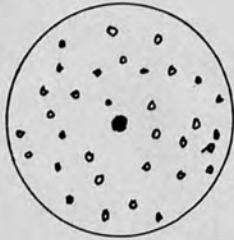
D.W. Winnicott (1953): "Let us assume that health in the early development of the individual entails continuity of being ... The early psyche-soma proceeds along a certain line of development provided its continuity of being is not disturbed". Winnicott then insists a nearly perfect environment for the baby is essential at first. By this, Winnicott merely means that if parents face the conflicts of the baby in a normal way nothing else can go wrong psychically. 'Continuity of being' implies a condition of wholeness but Winnicott is speaking of psyche-soma and environment which divides up the self even if the inner-outer fit be perfect. Winnicott's 'continuity of being' implies time. Compared to Winnicott's concepts, Fordham's (1957) description, the original self, is theoretically a purer start getting rid of both the psyche-soma-environment duality and of time. The original self has retroactive evidence in that mature persons, when facing difficulties felt to be insurmountable, return to an original condition which can be named the original self or a primal condition of wholeness. Adults may approach this through memory or a regression.

b. Deintegration, disintegration, integration

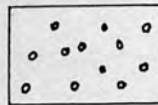
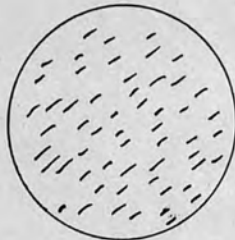
In the development of consciousness, the child violates the original wholeness with a spontaneous division of self into parts. Fordham has proposed the term 'deintegration' as a property of the self behind ego formation which is present first. This is distinct from the concept of disintegration, which presupposes an already formed ego which is split into a number of fragments. It explains the difference

DIAGRAM 2. SELF/EGO DE-INTEGRATION

Original self.



External world.



Archetypal potentialities.



Unconsciousness.

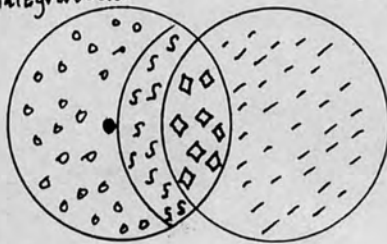


Postulated 'objects'

A. At infancy.

• The postulated centre of the self

The self in de-integration
and re-integration.



External world.

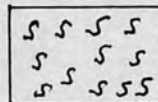


Mainly unknown objects of
the external world.

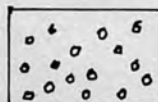


Internalized archetypal
objects; composed of
archetypes and outer objects
plus ego-fragments.

B. During early years.

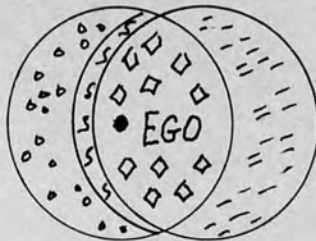


Archetypal images.



Archetypal potentialities

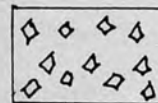
• The postulated centre of the self



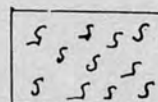
C. Development through
life span.



Mainly unknown objects of
the external world.



Internalized archetypal
objects. The ego is coherent



Archetypal images.



Archetypal potentialities

• The postulated centre of
the self.

(Adapted from Lambert, 1981)

in Winnicott's and Fordham's view. Fordham sees the self as dividing itself up to form the ego and as being unintegrated or deintegrated from the level of the self until reintegration of the new formation. Winnicott sees a primary unintegrated state based on a viewpoint which is limited to Freudian ego psychology without a self-concept. Kohut (1977) has however put forward a theory of the self contained within a Freudian framework (see Chapter II,3-b).

The Fordhamian position is that the self cannot disintegrate. Only the ego can be split or even destroyed. The ego integrate then regresses. If the process is at catastrophic level, the ego does not integrate to an earlier level of its history, either because there is not another earlier level available as may be the case in schizophrenia, or because the disintegration has a high anxiety level which blocks a regression to an earlier ego level. If the disintegration is at complete level, a simpler ego integrate appears naturally and an earlier ego stability is re-established.

In the deintegration hypothesis of Fordham a spontaneous division of the self is proposed (see Diagram 2). Indirect evidence can be had from various sources. Jung believed that a new concept has certainly been reflected in ancient myths and this can amplify the concept of deintegration. The cosmic creation myths may be a source of parallel ideas to the deintegration theory. In the Orphic cult in Greece we find the cosmic egg as "...the symbol of what gives birth to all things and in itself contains all things" (Plutarch, cit. Harrison 1908). And again, "Orpheus likened chaos to an egg in which was the commingling of the primeval elements".

Eros sprang spontaneously from the cosmic egg, he "... revealed and brought to light everything that had previously lain hidden in the golden egg" (Kerenyi 1951). The process is spontaneous like the deintegration concept.

Jung discusses the scintillae of the alchemists which he describes as "seeds of light broadcast in the chaos, which Khunrath calls 'the seed bed of the future world'" (1960). Jung sees the scintillae as like the archetypes as he implies the origins of consciousness are in both and scintillae could correspond to "tiny conscious phenomena" and be closely related to the concept of the deintegrates.

How could the first element of consciousness as a formal image arise? We can easily but very incorrectly infer this by taking the image found in small children's circles as the representation of the original self at birth. This is incorrect because the original wholeness is imageless before the first deintegration achieves consciousness in Fordham's theory. Fordham postulates that a deintegrate may be described as a readiness to perceive and act which only enables a correct perception to occur if the object exactly fits the deintegrate because only then is the state of affairs where the baby cannot distinguish between subject and object possible. If the correspondence between object and deintegrate is not exact, it may at first not be perceived, but a tolerance later develops of the object not fitting the deintegrate until the distinction between subject and object dawns upon the infant.

Fordham has as an hypothesis in the deintegration theory the idea that a perception is not a passive act but part of object-seeking activity. Piaget also postulates a clear need for the outer object to comply with what seems to be inner requirements. In the Origins of Intelligence of the Child (1966) he concludes from studies of his own children that a schema lies at the root of imitation, play and intelligence. If we assume his schema to be a deintegrate, the deintegrate can develop through imitation in play and symbolic activity. Piaget describes his schema as unconscious elements upon which the psychic life of the infant is organized. These are 'global' reactions to which objects are assimilated. Piaget postulates that only the resistances of the environment or the incompatibilities of the infant's activity in relation to it prevent this generalization from occurring. "Now this schema...is not limited to functioning under compulsion by a fixed excitant, external or internal, but functions in a way for itself... From the point of view of awareness, if there is awareness, such assimilation (sucking) is at first lack of differentiation...but from the point of view of action, it is a generalizing extension of the schema ..." (1966). Piaget, of course, based his investigations on a different set of theoretical concepts than Fordham. Piaget believes the infant's first reactions are reflexes and that the schemata represent reflex action. What is interesting is that Piaget sees imitation in the infant as only built upon schemata and that the infant will only imitate other's behaviour if this behaviour corresponds closely to the schemata already expressed by the child. Inner requirements need to be met by the outer object.

Empirical evidence is difficult to assess as the infant's unconscious as well as his pre-speech period contain much that has been incorporated into theoretical interpretation by Fordham, Klein, Winnicott and Piaget. Thus diverse workers base their postulations on direct observation alone or on experimental results. Kris's (1955) work in 'well baby clinics' broke ground because he made predictions of how a baby would develop and then did longitudinal studies of his mothers and babies to see if his predictions were valid. Escalona in The Roots of Individuality (1969) studied babies at home, in the first four months of life, rather than in a clinical setting later as Mahler et al. (1975) have done. The inclusion of very early life helps round out a difficult area of study.

The psychoanalysts, more than the Jungians, doubted reliability in infant observation, fearing that projections of the experimenter might occur in the observation as well as in the experimenter's fantasies about infants. Some analysts thought it safer to wait until verbal communications gave information from which constructions about infancy could be made. Whatever anxieties remain about this, observation, while not totally reliable in giving exact information about internal psychodynamic processes, can provide hypotheses whose validity can be checked against further observations. In general one finds that theory abounds most where observation is least. Nevertheless, along with

child analysis, infant observation can give a realistic picture of what mothers and babies do in the sense of the general relation of the infant to his mother and the building up of a timetable of changes within the infant self (Mahler et al, 1975).

A supporter of direct observation is Blackburn (1971): "The most reliable and effective knowing follows from direct and open confrontation with phenomena, no matter how complicated they are. Nature can be trusted to behave reliably without suppression of the manifold details of a natural environment, and nature's ways are open to direct, intuitive, sensuous knowledge". And again, "Since the self and the environment are inextricable (contrary to the philosophical stance of classical science), one can understand his surroundings by being sensitive to his own reactions to them".

Obviously workers in the field of infant observation and child analysis attempt to observe the phenomena involved in a way that would ensure that another observer (in the same situation) would reach the same conclusion. Blackburn (1971) points out: "Before conventional scientists (by this is meant workers outside psycho-analytic orientation) rush in with cries of "subjectivity" in criticism of the sensuous approach (i.e. the response of the whole body, including the senses, to phenomena ... dependent on factors such as mood and attention, but ... undeniably a source of information about the world around us), they might stop to consider whether or not a person selected at random off the street

could be asked to repeat their highly sophisticated observations from laboratory experiments". With proper training, they could. But this is exactly what the sensuous observer would reply is necessary for his method as well. Obviously the position of a pointer on a scale cannot be the only way of gaining quantitative knowledge and there is other knowledge besides quantitative knowledge. The predators to Homo sapiens would have destroyed him if human beings, were not instruments capable of understandably confronting the "messy" world outside the laboratory. This eliminates the tendency to abstractions in laboratory studies, and points up the claim that laboratory science may be "irrelevant" to the study of very young children because it doesn't fit their natural behaviour as child analysts insist it must.

C. Object relations

A wide recognition of the importance of object relations has developed because young children universally need objects either as parts of themselves or of others. This implies that perception becomes image. This is a development that Piaget puts at about one year of age. Through objects, the child begins to see himself and other persons as a whole. The first image, separate from an immediately present object, is presumably linked up with the development of memory. Once images are formed apart from the object, they can represent absent objects or, if taken hold of by the archetypes, can be used or altered to make up archetypal images.

The Kellogg (1969) research on 100,000 pre-school children's early pictures and scribbles, which includes her theory of abstraction, can be correspondingly compared to deintegration. From twenty basic original scribbles, five diagrams or shapes were abstracted as most significant to the majority of the subjects; two forms of cross (+ and x), the square, the triangle, irregular-shaped enclosures and the circle. The children then made 'combines' of the diagrams. The mandala was the most frequent combine from which a human figure was later drawn by combining circles and a modification of the mandala. This study points out that the human figure is not copied from perception of it as a whole, but grows through a process of combining and abstracting various forms, including the mandala image, which Jung sees as a representation of the self. This image was often transformed by the children into a human figure or ego representation. The abstraction of 'diagrams' from the scribbles can be likened to the deintegration process. The recognition of an external object (scribbles) releases an instinctual or unconscious archetypal response which separates out the image of the diagrams. Random activity plus abstraction or deintegration is followed by combination or integration.

In deintegration with the resulting images, we can speak of the preconscious state when fragments of ego consciousness exist and unite to form an ego centre. The self is seen as the integrater of the ego fragments. G. Adler (1951): "... in childhood ... the non-ego has the upper hand at first, and the self charges the ego-function

with sufficient energy for it to establish itself against the non-ego, so that it can fulfil the demands of adaptation to the outer world ... the self operates as an image of potential wholeness behind the psychic processes and bends them towards realisation of this wholeness, which appears as the synthesis of ego and non-ego, of conscious and unconscious, of the inner and outer worlds".

Other psychic activities enter into the growth of the ego. Fordham (1957) suggests as examples: recognition of similarities, association in time, infantile logic, concept building, instinctual drive aspects of the archetypes (e.g. infantile sex instincts), archetypal images having an integrative effect because the self lies behind them and education.

Integration of the self follows deintegration to form the ego nucleus in a periodic manner. After the original self deintegrates spontaneously, perception and action may occur according to the patterns of the deintegrates. For this we are reminded that a perfect fit with the environment is necessary in Fordham's view. With this fit, reaction patterns develop based on preconscious image. These deintegrates grow into ego nuclei which are brought together through the integrating action of the self into a single ego centrum. The ego continues to develop through periodic deintegrative actions leading to specialized units of consciousness for which I propose to introduce the new term, 'con-integrates'. Various con-integrates I would propose would be speech, defence of self, ego-persona, play, the

aesthetic, the ego-ideal and the ego-shadow. The combination of abilities and perceptions required for these complex areas of behaviour, so universal across races as to imply an archetypal influence of a most fundamental and primordial nature, suggests a special case of unifying deintegrates, on a very complex and multitudinous scale, into 'con-integrate areas' within the integrated self. This results in the almost inconceivable ability, for example, to learn and speak the English language if the difficulties of doing so are analyzed into detailed component parts. The same may be said for infants' symbolic play where concentration is required on all hierarchical levels of play difficulty. Body motility, similarly directed mostly from an unconscious level suggests con-integrates are huge, unifying, Gestalt-like complexes of deintegrates, conjoined to insure survival through effective performance and perception. Speech, play-work and body motility influenced by defence of self, the ego-persona and ego-shadow and the ego-ideal with the aesthetic seem essentially basic to the psychological life of almost everyone and imply a vast coordination system between the conscious and unconscious mind. While con-integrates are built by deintegration and are therefore a postulation subsumed by Fordham's theory of deintegration-reintegration, I maintain that my term 'con-integrates' helps clarify a group of very large deintegrated aggregates which reintegrate in special systems of great biological significance. This concept adds clarity to Fordham's deintegration proposal by separating out certain reintegrations into this special category of con-integration and to coordinate con-integrates into the overall neo-Jungian system.

I am, of course, not implying that these areas should be called anything other than their ancient and regular names when being discussed outside the hierarchical framework of a new ego theory of the self and its development in early childhood. This conscious development runs parallel to an unconscious deintegrating into the archetypes of the collective unconscious, which become more discrete if individuation develops where the ego moves forward and the self is less apparent in the foreground of the child's personality.

The other important development with deintegration is that because the environment can exactly fit a deintegrate, so that at first there can be no differentiation between them, bits of ego develop, and where the environment fails to fit the deintegrate a separation occurs if the frustration involved for the infant is tolerable. The infant is assumed to tolerate more and more of these frustrations until a duality is established between the environment and the self composed of the growing ego nucleus and a whole body image. Taking in and ejecting occurs in feeding and excreting with later childhood development giving conscious psychic equivalents. As the ego increases in strength, play, fantasies and dreams become less important although these preconscious conditions remain in the background. As the ego develops clearer boundaries, the emotional environment also has less influence. Theoretically, it is only the preconscious state, or in the pre-ego state, that the environment cannot be psychically handled by the child.

Children do not progress simply from an ego development to integration. During this development some psychic experiences may become disintegrated and repressed in the personal unconscious. Archetypes, as essentially unconscious constellations, can never be totally integrated within the ego. Among the archetypal images are those of wholeness and order which have a controlling influence over unconscious functions. Fordham (1960) has postulated the central archetype of order discussed above which is seen as a potential integrate of the ego and the archetypes through a general "tendency to wholeness or a uniting of aspects of the conscious and unconscious mind". This kind of integration would be different from ego development or the growth of the conscious mind alone. The symbolism of the comprehensive synthetic process in adult subjects, concerning the general tendency to wholeness, has been demonstrated by Jung in four works: The Secret of the Golden Flower (1955), Psychology and Religion (1958), Psychology and Alchemy (1944b) and Gestaltungen des Unbewussten (1950). These studies demonstrate mandala symbolism in adults, but Jung does not deal with this phenomenon in children. Fordham (1947) however deals with three studies revealing mandala symbolism in one- and two-year-old children. Before considering this empirical material, we need to study the relationship of mandala symbolism to deintegration-integration.

D. The mandala in childhood

Jung writes of mandalas as of magical enclosures which are often but not always round. "The round or square enclosures ... have the value of magic means to produce protective wall ... they prevent an outburst and a disintegration" (1953). In addition to the prevention of disintegration, mandalas are drawn by persons when they need to integrate a new element or as deintegration occurs. It is around mandala studies that the closer relationship and theory of integration, deintegration and disintegration was discerned. In mandalas, variable contents are always arranged about a centre. The most frequent number of divisions between the centre and the circumference is four or a multiple of four. In Psychological Types (1921) Jung has put forward the view that this fourfold division represents the fourfold structure of the psyche (thinking, feeling, intuition and sensation). The centre "is simply unknowable and can only be expressed symbolically through its own phenomenology, as is the case, incidentally, with every object of experience". The self is believed to be represented by the centre, by the surrounding contents and by the circumference jointly. The mandala is thus the most powerful symbol of the self known to Jungian psychology.

In children where ego differentiation is not clear from self manifestations, the self seems to prepare the ground for the ego's emergence. An example of this is Fordham's description (1957) of a one-year-old boy who was allowed to scribble on the walls of his nursery. After initially making squiggles he became preoccupied exclusively with

making circles. He continued this for a period of weeks when upon discovering the word 'I', he stopped making circles. The relation of the circles to the discovery of 'I' suggests that the circle represented a matrix of the self from which the ego arose. Stein (1951) has done research into the origin of the word 'I'. He agrees that: "The linguistic development (of I) ... reflects a process by which the ego is separated from the self". This is consistent with Jung's view that the circle is an archetypal non-ego. If the child identifies the word 'I' with the circle, he does not yet mean it necessarily as an organized ego, but rather as an awareness or discovery of himself as a whole, complete, a circle, a somebody if only for a moment. The circle probably also represents the boundary of the ego as well as referring to the integration of self-feelings.

Fordham (1944) describes the case of a girl of two-and-a-half years. When coming for analytical treatment she would scribble while held on the knee of the analyst, but upon drawing a circle, would get off and play elsewhere in the treatment playroom. When the circle appeared, she became free to express her ego in action in Jungian theory. Another girl of two was brought for treatment of fits during which she became completely unconscious. She was very dependent on her mother and could not feed or dress herself. She displayed great fear of entering the treatment playroom but after scribbling with chalk, made a circle and said 'me'. With this her frightened manner changed and she went about playing with toys. This was interpreted to mean

that the circle was a picture of the self and ego in union giving some security to the child if only temporarily. The relief of anxiety after drawing the circle was also seen as the tendency to unite with the mother (the circle united with the word 'me'). This was periodically necessary for the girl's balance at this stage. The concept of deintegration helped to make comprehensible the source of the fits which were seen as the "dismemberment of the ego by the deintegrating self, a process described as disintegration" (Fordham 1957). Although pathological in itself, this disintegration made the girl have a regression to an earlier stage where mother and child once again represented the whole integrated self, from which the girl had been afraid to separate. Through spontaneous play, enabled by the analyst's presence giving a free and protected neutral space, the ego of the girl began to develop separately through deintegration of the self, because having regressed to the earlier integrate of mother-child unity, the energy formerly put into the fits was free instead to be put into a progressive deintegration to establish the child's own ego growth to a position of positiveness and separateness from the mother.

Fordham's theoretical basis for the discussion of these children's cases can be summarized in his own words: "The danger (in these cases) is clearly from the child's psyche itself, and if it be accepted that he (or she) had made an image of the self from which the ego is budding off, then the danger to the ego can only come from the self" (1951).

Theoretically the self as a deintegrating-integrating system comes into this empirical material with the deintegration of the self seen as a danger to the ego which can be split if separation of the two - ego and self - is not complete. This can be pictured as an insufficient ego deintegration so that just when the self, at reintegration, begins to deintegrate again in a regular rhythmic cycle, the ego can be split, rather than progressively built, if it is not deintegrated out enough to be separate or to have separate ego-bits completed.

In the Jungian view, the circle is seen to represent a delimiting or magical area used to ward off danger from within or without, or in the inherent and dangerous condition of the ego-deintegrates as the ego comes into being. It is also possible, using analytic interpretation, to link circles and mandalas with the body-image experience of young children. Early experience of parts or of whole body-images may correspond to the impenetrability of the circle. It must be remembered that eyes, breasts and the principle body orifices are all circular. Jungian psychology argues that it is not possible to account for circular imagery entirely on the basis of perceptual experience of external objects as they can be images of the self which are symbolically observable in empirical situations like the analytical treatment of children as described above. Nevertheless, Jungians would be the first to realize that the "magical omnipotence of the circle image" (Fordham 1957) is often used by children to simulate a control system,

inside of which they can place bad or terrifying objects and hold them there. In the same way, precious or good objects are placed within the circle to protect them from outside dangers.

e. Objects in symbol and meaning formation

A number of features of symbolization in infancy require elucidation. An essential characteristic of a symbol is that it represents a relatively unknown influence. It is different from a sign in that its unknown part cannot be made completely conscious by getting rid of repression or by lifting its disguise by interpretation. In general symbols have a plurality of possible meanings as they may combine opposites, or transcend them in a unity which refers to the self. For a small child, parents are known to exist but their nature is obscure. They are experienced through archetypal imagery. As the child grows up he sheds the symbolic image, if and when he is able to see his parents wholly without fantasy. A baby cannot take up a 'symbolic attitude' until he can pretend and take up an 'as if' quality. It is not known if there is an incipient capacity for the baby to hold its experience of deintegrated and integrated states until they are represented later symbolically, because the images depend on a certain degree of consciousness and on memory.

Presumably the infant's consciousness, in the sense of meaning formation, is vague initially and objects are only gradually constructed. At first these objects are not differentiated from the self so everything is a self-object and the mother meets and satisfies all the self-

objects' needs. The Jungian view holds that the self-objects are organized on archetypal models. Other sense data which are not self-objects are experienced as not-self when they integrate. These are at first attacked or rejected by screaming, crying and excreting or spitting and vomiting. These not-self objects form the basis for later bad objects. As there is no capacity to sustain conflict between the opposites of 'good' self-objects or 'bad' not-self objects, symbolization of objects does not occur.

Fordham (1976) postulates that the first grouping of experiences is in terms of their sameness. The case of Alan, which he discusses, shows how the self-object will tend to treat apparently very different objects as if they were identical. Segal (1957) called this characteristic 'symbolic equations' and thought that this related to certain states of ego-fragmentation where projective identification is prominent. In Segal's view, based on Kleinian theory, an hallucination or a thumb is experienced firstly as the same as the breast, as the first self-object, and eventually either one may come to represent the breast.

An essential prerequisite for symbol formation is object-constancy or the ability to maintain an object in memory after it has been experienced. It is widely believed that infants do not at first have this capacity and cannot sustain an image of a feed after they have experienced it. For a symbol to influence experience, it must continue and develop so as to achieve a dream-like or

hallucinatory quality having archetypal characteristics. Since the archetype, although it creates an image or self-object, does not control its persistence in time, the persistence or constancy of an object "must be attributed to the development of consciousness" (Fordham 1976).

With development, the child may relate symbolization to absence or loss of a valued object. The affect associated with this is mourning and its early prototype is the "depressive position" advocated by Klein (1948). Initially the lost object is the breast. In the depressive position, the child symbolizes the lost breast by a reparative act internally using imagery and thought. This increases the perception of the real mother. To create a symbol, the self-object must be destroyed. Only then is the need for a creative act great enough. The breast, as self-object, is destroyed but as the real breast is still existent the constructive act must abstract from the object and this abstraction is the symbol. The significance of the destructive fantasy must include perception of the breast as both a good self-object and a bad not-self-object. When these two aspects are identified within one object, the nature of the destruction changes. There is no feeling of loss if the baby is only attacking the bad breast but if, at the same time, the good breast is attacked there is experience of loss. Reparation must be made if the self is to survive.

Once the child can pretend, fusion in self-objects becomes sufficiently dissolved for self-objects to become representational. Winnicott (1971) has discussed a special 'transitional object' which helps to separate the fusion between the self and self-objects. In first feeds, if a baby is satisfied at the breast, it is postulated that he creates a breast through deintegration over which he feels he has omnipotent control. In reality the baby has not any control except in aspects of his inter-action as to the length of feed. Gradually the baby comes to recognize his mother as a separate object out of his control. The need for omnipotence makes the baby stuff bits into his mouth or thumbsuck. He does this as he can control these actions. The bits stuffed into the mouth can be put to various imaginative uses and acquire properties in imagination they did not have before. At first, however, the thumb or bits are a true self-representation in the sense that this is a demarcation area between an inner psychic world (or omnipotence over the breast) and "the external world as perceived by two persons in common" (Winnicott 1971). This refers to a state where both baby and mother have a different and a separate relationship to the breast as perceived by the child. Later the thumb may represent only bits of mother, or the infant himself.

The transitional object appears between four months and one year. It is like a symbol in that it has a 'life of its own', it contains opposites and it can die by being relegated to 'limbo' if its meanings become exhausted and/or assimilated into dreaming, play, fantasy, thought and creative activities. The transitional object discovers

the not-ego (the mother) in a way that is not felt to be alien or 'needing to be destroyed' as it would be at first as the not-self. The processes underlying symbolization in separating out from the not-self are vital to the discovery and construction of reality. When deintegration makes the mother-object or not-self a part of the self, disillusionment gradually leads to a reappraisal by the infant and a not-self reality is discovered. The transitional objects help the child to use imagination and symbolization to contain parts of the self as they are seen to be actually not-self reality, a reality that is constructed piece by piece.

In summary of this section on deintegration, the self is seen throughout the discussion as a primary datum. This hypothesis assumes the self is not reducible to anything else and is, on this basis, a parsimonious theoretical approach. The symbols that depict union of opposites in children have been believed to refer to a state from which the infant began. The first self-integrate in infancy has been termed the 'original self' by Fordham. This suggests that current ideas of the mother as 'carrier of the self' are misleading unless this concept is restated to indicate that to the baby his mother is a part (deintegrate) of the self. On this view the infant creates his mother in the light of his own needs initially and she represents, in this sense, a part of the infant-self. Without the concept of an original self, a basis is lacking for the persistent recurrence of integrative states.

The primary state of unity gives rise to later self-representations in the ego expressed as 'unit states' and a sense of self in the baby at about two years of age (Fordham 1969). Earlier derivations of self are a fusion experience where the infant treats his mother as part of himself rather than as a separate object. Although early perception may be global and cause fusion, it also suggests that fusion is due to the organization of perceptual input into a unitary perceptual system "which only later deintegrates into specific and clear perception".

"The use of the term deintegration - corresponding to instinct defusion - is valuable because it keeps in mind the essentially interrelated activity of functional systems of adaptation and provides a basis for ego-formation and for the periodic integration of ego-fragments into what we know later is an organized ego-structure" (Fordham 1976).

Chapter II. The contribution of Freud and the neo-Freudians

1. The Freudian background

S. Freud, the father-figure of psychoanalysis and a genuine pioneer, believed that neurotic symptoms could be explained in terms of the patient's life history. Freud found that in the hysteric neuroses, symptoms could disappear if the patient felt secure with the psychoanalyst and reappear if that relationship became disturbed. In 1908, when Freud wrote "Civilized sexual morality and modern nervousness", he thought that the repression of instincts and sublimation, or the diversion of instinctive energy to socially approved goals, created such difficulties that it forced many people into severe neurosis. Freud's clinical observation turned up similar psychic experience in a wide variety of persons. Obviously Freud's discussion of fear, anxiety, love, jealousy, sexual desire, aggression, anger, hate and the way these may occur in the same person broke ground in clinical thinking about conscious experience and behaviour. As turbulence is mentally suppressed, the symptoms of psychoneurosis, whether physical or mental, arise on Freud's theory. Not only illness may arise but antisocial behaviour may be acted out or dream material and daytime fantasy may suggest meanings that are intelligible by studying a person's life history. Freud took as a resultant hypothesis that persons apparently do not outgrow early childhood experiences and that early acute anxiety, anger and insecurity are repressed to the unconscious while the conscious self develops either conformity or rebellion or a mixture of the two as its day to day basis.

What distinguishes Freud's concept of ego-instinct (Ichtrieb) is that he has made instinct a structure existent before the phenomenal relation of subject-object. Instincts are thought of as freed both from a rigid reference either to objects or to the subjects and are seen to be variably directed, as objects may be exchanged by means of substitutions or displacement of cathexis. The self (Selbst) and self-regard (Selbst-gefühl) are discussed by Freud only in this sense of redistribution of erotic cathexes (Standard Edition 14, 73-102). Freud eventually saw the sexual instincts as most indicative of the primacy of aim over the object and separated sexual instinct from ego or self-preservative instincts. He posited a primal confusion between thing-love and self-love. "If one admits a narcissistic phase in which the external world is indifferent and the subject the sole source of pleasure, then the process of distinguishing between the external and the internal, between the world and the ego, is a process of economic division between what the ego can incorporate into itself and prize as the possession of the "pleasure-ego" (Lust-ich) and what it rejects as hostile, as the source of unpleasure" (Ricouer 1970). Narcissism is introduced into psychoanalysis to include both aims of instinct, the object and the ego, making the conception of instinct more radical a concept than subject-object relation by itself. Object-choice is seen as a departure from narcissism and economically, in the broadest sense, there only are departures and returns to narcissism. Freud updated his topography after 1924 to include the structure of ego,

id and the superego and formed the idea that a displacement of narcissism brings about the formation of ideals. In the sense that the subject measures his own ego or self-regard (Selbstgefuhl) by his ideal, this becomes the only sense in which Freud is dealing directly with a part of a visible 'self-theory'. He ties this development to childhood: "This ideal ego is now the target of self-love which was enjoyed in childhood by the actual ego. The subject's narcissism makes its appearance displaced into this new ideal ego, which, like the infantile ego, finds itself possessed of every perfection that is of value. As always where the libido is concerned ... (the person) is not willing to forego the narcissistic perfection of childhood; and when ... he is disturbed by the admonition of others and by the awakening of his own critical judgment, so that he can no longer retain that perfection, he seeks to recover it in the new form of an ego ideal. What he projects before him as his ideal is the substitute for the lost narcissism of his childhood in which he was his own ideal" (Freud, S.E. 14, 94).

Freud leads us back from instinctual factors and their vicissitudes to their derivatives in consciousness. The object can only be traced back by understanding the economic distribution of the libido and its linked genesis with love and hate. Freud reduces all derived forms of instinct away from the first truth of reflection, "I think" or "I am", to something altogether primitive and primordial named 'primary narcissism'. Freud thought the 'resistance to narcissism in gaining self-knowledge' was man's third

humiliation by science, the first two having been the cosmological blow from Copernicus (that the earth is not the centre of the universe) and the biological humiliation of Darwin (that man's ancestry was recently most simian indeed)! Freud moved the description of consciousness to a topography involving psychical apparatus in order to include the contrary nature of narcissism. In doing so, P. Ricoeur (1970) remarks that Freud comes near to a point of phenomenological impoverishment as consciousness becomes as obscure as unconsciousness. The "I think" and "I am" vacillate on Freudian theory. In introducing the interpretation of hidden meaning in apparent meaning, Freud found a way back, by linking the topographic-economic explanation to the work of psycho-analytic interpretation. In relinquishing an obvious phenomenology (Bewusstsein), or self-evidence of being conscious, for a process of becoming conscious (Bewusstwerden) the only way to underpin such a claim was to turn to the unconscious as a locality where ideas and representations reside, which will mediate the interpretation of the object in a reflection rather than an immediate consciousness. E. Husserl in the Cartesian Meditations (1960 edition) admits that at the heart of the certitude of the "I am" there remains a question: "How far can the transcendental ego be deceived about itself?"

By using the same language for both unconscious and conscious Freud enables affinities of meanings between the two: we can speak of unconscious ideas and conscious ideas. Apperception is no longer defined by the fact of being

conscious but includes the unconscious influence on the conscious in its perceptual life. The psychical cannot be defined apart from the possibility of becoming more conscious as it is "the only characteristic of psychical processes that is directly presented to us... (it) is in no way suited to serve as a criterion for the differentiation of systems. In principle, psychoanalysis should translate the delimitation of meaning via the remote primary instinctual representatives back into a fuller conscious psychism" (Ricouer 1970). The unconscious is not seen by Freud as an absolute 'other' to the conscious but as homogeneous with it interpretively and reflectively.

With the ego, superego and the id, Freud postulated a structural topography the neo-Freudians have later modified. His theory of excitation and detensioning, as basic to all experience and based on instinctual life, constituted the basis of the economic theory. Freud posited an antithetical position to the self concept because a progressive synthesis, inseparable from its production, cannot be posited in Freud's topography nor can it "appear among the vicissitudes of the instincts which constitute the theme of the economics" (Ricouer 1970). The meaning of "Selbst" implies a self-other difference from which the self-identity surges. This ever-recurring separation of self and otherness resides in life experience, inner and outer. That is "it is life that becomes the other, in and through which the self ceaselessly achieves itself". Freud takes unconscious archeology as expressed in themes of instinct and narcissism and links them with a concept, not made clear as

to its exact themes, of a teleology within the process of becoming conscious. Some of the themes involved include identification and sublimation of the self or parts of the self which the neo-Freudians studied. Freud's use of "das Selbst" in his early work refers to the ego and is almost synonymous with it. Later he defined the self as the totality of the id, ego and superego. He argued that the conscious has to develop ego-defences against unconscious conflicts which if they erupt into consciousness cause mild to severe anxiety symptoms. An important aspect of repressed childhood experience is that in the adult the sublimated emotions involved may 'transfer' on to an analogous figure of the day through identification causing disruption in friendship, marriage and politico-cultural choices. Freud used a 'talking out' method of free association to enable the patient to voice freely whatever occurs to him without losing the analyst's respect in discussing what seemed previously prohibited to the patient. Psychoanalysis relies on the analyst offering reliability, sympathetic objectivity and an attempt at genuine understanding of the patient within the theories Freud made explicit. Through free association, the patient, theoretically having a trusting transference to the analyst, may resolve past unhappiness and be enabled to make appropriate relationships, to recognize his motives and the motives of others through better understanding himself.

Although Breuer's "cathartic procedure" using hypnosis may be regarded as a forerunner of Freud's work, Freud discarded the hypnotic method altogether and introduced free association. Much that is really particularly characteristic of psychoanalysis has been originated by Freud. In Studien über hysterie written jointly by Breuer and Freud (1895), the claim was made that the symptoms of hysterical patients are founded on traumata in their past life. Breuer obtained catharsis under hypnosis as therapy; theoretically it was thought these symptoms represented an "abnormal form of discharge for quantities of excitation which had not been disposed of otherwise (conversion)" (Freud SE 14). Breuer and Freud had different theories of the mental dissociation of hysteria, but Breuer broke with Freud concerning the extent of the importance of sexual aetiology in neurosis. Freud clearly contends in his 1914 paper, "On the history of the psychoanalytic movement" that his concept of repression was original to himself. He did not know, until Otto Rank pointed it out, that A. Schopenhauer in his The World as Will and Representation (see 1966 translation of 1819 first edition) describes a similar phenomenon concerning struggle against acceptance of a painful part of reality. Freud refused to read Nietzsche during his later life as well as most other philosophers because he wished to derive his ideas from clinical psychoanalysis, not from philosophy. Freud also claims that he had come to his central ideas of his dream-theory - that the reduction of dream-distortion could be traced to an inner conflict - before reading a similar idea from the engineer, J. Popper, whose Phantasien eines

Realistin (1899) was published under the pen-name of 'Lynkeus'.

Where Freud was directly influenced by others we must be rigorously specific. The generalizations about this in the literature are notorious. Ernest Jones (1953,1957) states that Freud often quoted von Schubert (Die Symbolik des Traumes, 1837) and Reeves (1965) concludes Freud had read von Schubert's dream theory. Von Schubert's concept of "Zweideutigkeit" or a double ambiguous significance, like a Janus-face, which he found in nature, religious practice, prophetic insight, dreams and in somnambulistic behaviour may have been an influence on Freud's pleasure-pain principle and concept of opposites. Von Schubert (1837) mentions a striving or desire as the essential drive with an opposing "desire of spirit" as directed to a world beyond the senses. Whether one disregards this as too metaphysical or not, the opposite concept of a desire that remains biological leads to an intense attachment to a more limited object of which von Schubert thought the reverse side to be destruction. Aggressive destruction goes together with intense attachment whether in the natural, biological or social world on this view. The important point here is that resulting dissociation states were postulated which may have directed part of Freud's thinking on the subject. Von Schubert believed in metastasis, or that organs designed to function in one way may take over the function of another. This was important in dream interpretation because von Schubert postulated a metastatic linguistic confusion of reference in dreams as well as in myth, poetry and prophecy.

He argued that the language of dreams followed differing laws of association to everyday speech using symbolic condensation so that one hieroglyphic image might act as symbol for something more complex or unknown. Obviously von Schubert's contribution to ideas about unconscious functioning had some influence on Freud but it should not be exaggerated. The other influence attested to by Freud in the posthumously published letters to Fliess was his interest in Taine's On Intelligence (1871) which Freud would probably have known as he formulated the Project (Freud 1895b and see Pribram and Gill 1976).

As Taine probably influenced Freud's theory of primary and secondary processes which relate to his ego theory as stated in the Project, this material needs thorough consideration. The Project stresses an economic account of the organism as having limited energy, if one uses energy for one thing, Freud believed there was less for something else. He tied this idea to two proposed neurological principles: a) neuronic inertia by which motor neurons keep the organism free of stimulation and b) constancy or the maintenance of equilibrium. Freud saw any action as reducing the tension of imbalance so that pain and pleasure were defined in terms of tension and detensioning throughout his theory.

Of particular relevance to this view is Taine's idea of perception as "veridical hallucination" containing antagonistic forces between 'sensations' and 'images'. Taine defined sensations as those processes that project outwards arising from the stimulation of receptors, sensory nerves and corresponding central areas. Taine believed that images are caused

by a revival of the memory of a sensation. Where recollective images become hallucinatory these could be neutralized by the external sensory input. This input, as a rival system of images, created a normal state. This idea of antagonistic and complementary nervous function seems fundamental to Freud's concept of primary and secondary processes.

Freud saw any deficit in hunger or sexual satisfaction as well as a stock-piling of aggression as creating an imbalance which produced tension. The primary process was thought to be immediately concerned with avoiding stimulation to get equilibrium. This was the sum of the representative product of externally induced change, plus the immediate product of internal stimulation. The secondary process involves a toleration of some energy to satisfy the basic drives. In the neuronal theory of the Project, the Psi neurones operate as a sub-system always energized to inhibit both internally-produced images and motor actions from the primary process. These responses Freud thought to be acquired or secondary.

In the Project the ego was this sub-system of neurones permanently cathected. The ego has two dangers to overcome: there could be a failure to separate hallucination from externally produced perception so hallucinatory tension would not be reduced and, similarly, internal memory might overwhelm external perception. The Project contains a simple explanatory model which discusses the discrepancy between memory and perceptual image: 1) 'wishful cathexis' as

neurones 'a' and 'b'; 2) 'perceptual cathexis' as neurones 'a' and 'c'; the ego halts action because 'b' and 'c' are discrepant and a search process is begun, on Freud's theory, until a perceptual discharge equalling 'b' is achieved.

We have discussed the widely accepted theory that infants are not thought to have a fully developed criterion for distinguishing external from internal image in the first weeks of life. Freud thought the ego was naturally the criterion as it could inhibit the intensity of internally-produced imagery but only through 'biological experience'. This would suggest that the ego needs to have a primary capacity for the whole organism to allocate stimuli associated with the past either to pleasure or to pain. Freud assumed that a baby has a very accurate memory image of anything that has satisfied. We have seen that M. Fordham, following Jung, postulates that the ego deintegrates out searching for a 'match' to fit the needs of the baby and that at first the baby can only tolerate a perfect fit without disintegrating. In the baby's long period of dependency, primary narcissism would be a basic a priori assumption behind psychodynamic theory in the first two years of life.

Freud has only a limited debt to acknowledge to the early ideas his teachers propounded. To defend this independent position, historical details of Freud's life must be kept in mind. Throughout his life work, it is to be remembered that Freud was to use these prevailing ideas extant in Vienna during his training in new and extended ways.

In his medical training Freud was taught by the physicalist group of Viennese neurologists who looked to Helmholtz and Mach. They tried to describe biological phenomena in terms used by natural science and they were helped by electrical stimulation and recording from biological tissue and measuring its effects on neural activity and on bodily chemical processes.

E. Jones (1957) traces Freud's work under Meynart and Brentano (see also Bernfeld, 1944, 1949; Merlan, 1949) and his tenure in Charcot's clinic where trainees studied problem-solving behaviour by using hypnosis and observation of seemingly unrelated associations. The claim that action is intentional was a basic assertion of the training. This had been argued by Brentano and may have influenced Freud's distinction between what is perceived (real?) and what is conceived (only thought?). Although Freud's refusal to have much to do with philosophy is well-documented, he does admit that the concept of unconscious determination in psychoanalysis is a psychological counterpart of Kant's philosophical views (Freud SE 14). Rapaport (1960) sees the epistemological implications of psychoanalysis as closest to Kant.

Freud's teachers were living in a time when Central European thought was somewhat influenced by Schelling. He propounded 'naturphilosophie' to be 'speculative physics'. All of nature was viewed as an organic, evolving unity with organic processes as the fundamental explanatory principles thus reducing nonliving nature to the living.

The true vogue for this thought was in Germany in the middle of the eighteenth century. Bernfeld (1949) points out emphatically that in Austria naturphilosophie never had much power and was at minimal influence in Vienna. It would be true to say, however, that Brücke who taught Freud his first courses in physiology was in reaction against J. Müller, a vitalist, who always doubted that the velocity of the nervous impulse could be measured. H. Helmholtz, although his pupil, succeeded in measuring this and formed the Berlin Physical Society (1842) with E. Brücke, C. Ludwig and E. du Bois-Reymond, in order to destroy vitalism, the fundamental belief of Müller.

It is doubtful if naturphilosophie, although an attempt at monism in which mind might be the only reality, was actually exactly a vitalism. It did have a Heraclitean emphasis on 'becoming', common also to monism. In Kant's sophisticated version of nature as 'unity', he postulated a uniting of the mechanical and the teleological. He thought parts of the organism could only be understood in terms of their function for the whole. (In this theoretical approach Kant supports the theory of the whole as more parsimonious than reducing theory to separate bits or parts of the whole and thus indirectly supports the idea of self as vital to theoretical framework and irreducible from this point of view of explanation). Kant maintained that the existence of the whole implies an end. One cannot see in nature a visible purpose but Kant thought one can only understand an organism if one regards it as produced under the guidance of 'thought for an end'. Goethe picked up this influence and developed a more Platonic implication of this thought

by postulating "ideas" in "God-mind" manifested as a limited number of patterns for the structures of organisms. The root of this was Plato's conception of the macrocosm of nature as reflecting the microcosm of man and Kant restated this idea believing processes of mind reflect the processes of nature. Jung, in his conception of the collective unconscious, postulates the archetypes as carriers of the 'patterns' of psychological adaptation available to the organism.

Was Freud, after he entered University, any longer concerned with naturphilosophie? Probably not. The only philosophy he studied was in five courses with Brentano, a classical and Aristotelian philosopher. The influence of Lenarch and Müller as vitalists had been over-ruled in 1842 and Freud did not enter medical school until 1873. The faculty was more analytic by then and the older philosophic style of broad, synthetic, deductive theory-formation no longer held sway. Freud is reputed to have heard Goethe's essay on nature read by Professor C. Brühl at the Gymnasium although J. Strachey, editor of many of Freud's publications in English, doubts that the essay was actually written by Goethe.

I reject naturphilosophie as a part of Freud's mature inner Zeitgeist by a thorough review of the facts surrounding his University teachers: we know that Brücke, with whom Freud studied the nervous system for six years, was close to Helmholtz. Both Brücke and Helmholtz were Müller's pupils and founded a club together in Berlin. Helmholtz's contribution to physiology emulated physics and chemistry in its approach. His discoveries were many. One can mention the

description of the peripheral nerve fibres, the principle of conservation of energy, the measurement of the velocity of nerve conduction, the muscle heat production studies and the several visual and auditory studies.

Freud states that Brücke's influence (see CW 1927, p.253) carried most weight with him during his studies. S. Exner, Brücke's assistant, like Brücke himself, postulated the accumulation of excitation at the cortical centres which Freud was to use in his theory as well. T. Meynart's Psychiatric Clinic, where Freud worked for five months after his clinical training was another influence of sorts. Freud used this laboratory for several years.

Meynart's school tried to reduce all nervous function to physical reflexes. Mind as an efficacious agent was apparently eliminated. Meynart's model is important because Freud did have somewhat similar ideas and presented them, after much new elaboration, in the Project (1895). Meynart attempted to work out a theory of how the cortex developed in response to its environment. By its environment Meynart meant both its own body and the external world. He saw excitation as pain producing. The discharge of excitation was by the subcortical reflex system but this would not stop the impingement of excitation as shown behaviourally in restlessness or convulsions. Meynart postulated a cortical image of an external agent which could stop the impingement of excitation. He thought that cortical innervation sensations were mediated through subcortical reflex

pathways so that a cortical representation occurred at the end of impinging excitation. Association fibres were thought to connect this system physiologically and Meynart used a sucking infant as his example in lectures.

Meynart, before Freud, postulated the primary ego (Ich) as the "nucleus of individuality" which by association was built up to a unique psycho-motor intensity. He used teleology in his theory by defining ordered thoughts as "goal ideas implanted in the ego" (Meynart 1889). "The goal-idea, is, for example, the cessation of hunger; the means-idea which fits with it can be robbery, work, or someone else's hospitality. Which means-idea gains the force depends on the synergistic and antagonistic ideas which are already sufficiently well laid in the ego". How far was Freud influenced by Meynart? It is fair to say merely that he also believed that all nervous excitation and the transmitting cortical pathways involved were thought to serve the discharge of all impinging sensation and he also believed in an ego structure. The claims that Freud's Project was a rewrite of S. Exner's (1894) Entwurf zu einer physiologischen Erklärung der psychischen Erscheinungen are overstated. Exner's paper shares only in a vague way some of the background ideas of the Project: it compares to Brücke's lectures on neurophysiology and Meynart's work on cerebral function in the sense of using Brücke's fundamental mechanisms and Meynart's nervous mechanisms to explain complex psychological processes.

What is important to remember is that neither Meynart nor Exner had physiological or anatomical postulates for their assumptions. Freud's Project changed this.

Via his own studies of aphasia, Freud began to see the speech area as less circumscribed than had his teachers. Freud's case studies did not fit the cortical location of the speech apparatus that his teachers propounded. In the Project, Freud added to the prevailing reflex concept by postulating, in addition, a mechanism on the cellular neuron level which resulted in the transfer of excitation from one periphery of the neurone system to the other. Exner had only assumed this transfer but did not postulate a mechanism for it. Freud postulated the Omega neurons which received excitation only when the Psi neurons did and assigned consciousness to these. His teachers had no such postulations.

The Project had several other innovations as well:

- 1) The theory of dreams as wish fulfilments following on experiences of satisfaction in infantile sexuality has no equivalent in his teachers; Freud argued for somatic sources of excitation as responsible for satisfaction in infantile sexuality, not just excitation from the afferent periphery, as he thought the latter to be insufficient to explain the considerable excitation involved.
- 2) The repression of hysteria contained a new concept of repressed ideas; Freud believed them to be isolated from association whether the ego functioned or not, whereas Meynart's 'amentia' involved a weakening of the ego so that hallucinatory ideas were cut off from associative processes.
- 3) Freud's therapy method was different from everyone else's and clearly innovative.

As regards the influence of his teachers on the Project about all that can be said is that Freud generally regarded the cortex as an association mechanism as they did. He then extended and modified these ideas to entirely original innovative concepts as early as 1895 and continually later on throughout his life. Rather than express his Zeitgeist, Freud used part of it as a launching pad for his new missile-ideas which were in sharp contrast to the available ideas of his teachers. It could be said that Freud was trying to apply thermodynamics to man and assumed that the nervous system is passive having as fundamental function the removal of the energies fed into it. More importantly, Freud included the unconscious within his theory. Freud's work unveiled "...the meaningfulness of unconsciously determined behaviour as an indicator of a scientifically accessible process, whereas others had merely concerned themselves with the obvious, i.e. the conscious" (Pribram & Gill, 1976). Freud, (SE1), wrote: "We at once become clear about a postulate which has been guiding us up to now. We have been treating psychical processes as something that could dispense with ... awareness through consciousness, as something that exists independently of such awareness. We are prepared to find that some of our assumptions are not confirmed through consciousness. If we do not let ourselves be confused on that account, it follows, from the postulate of consciousness providing neither complete nor trustworthy knowledge of the neuronal processes, that these are in the first instance to be regarded to their whole extent as unconscious and are to be inferred like other natural things".

This solution to the mind-brain-behaviour problem smashed the Zeitgeist of Freud's time surely. Freud was a busy clinician making his living with very little time to read outside his direct field. Although initially influenced by Charcot, Breuer and also probably by von Schubert and Taine, the academic interest in tracing Freud's precursors has been misplaced as he was an innovator drawing his conclusions from his clinical material much more than from what others thought. He actually represents very little of his Zeitgeist in the sense of the prevailing scientific opinion because he applied a new interpretation to all this in psychoanalytical interpretation. The rampant sexuality of Vienna could hardly have been expected to lead him to a theory of repression! Pioneers cannot be 'placed' into historical perspective by the wishful thinking of tidy intellectuals who are afraid of originality in psychology and hence of non-perseveration. There is little point in reflecting that others partly paved the way for Freud. He simply did not know very much about most of them. He had not read many of the similar ideas to his either before, during or after his major discoveries with the exceptions discussed above. Freud was an original genius.

M. Jahoda's claim (1977) that Freud suffered from cryptomania, or forgetting the source of an idea while remembering its content, is based on her reading of M. Dorer (1932) who claims Freud's ideas were "similar" to those of Herbart and to Freud's teacher Meynart. Freud denies this when in his "A note on the prehistory of the technique of

analysis" (Freud SE 18) he acknowledges three predecessors who used free-association as a means of self-discovery in creative writing (but not in the context of an analytic system): Schiller, in a letter to the poet Kerner (1819); Dr. J.J.G. Wilkinson (1887), in his published verse which were free-associations on chosen themes; and the writer L. Börne (1858), who said novels should be written after three days of associating. Freud, as usual, maintains that colleagues drew these sources to his attention after his own invention of psychoanalytic method and, unlike Jahoda (1977), I believe this assertion without reservation. Jahoda (1977) goes so far as to claim in Freud and the Dilemmas of Psychology that "there can be little doubt that further work ... restricted to European ideas, will uncover additional material [to be added to L.L. Whyte (1962) and A.F. Ellenberger (1970)], demonstrating that virtually every single idea of Freud's has been conceived by somebody else before him". What Jahoda seems not to consider sufficiently is that Freud was a divergent thinker in Liam Hudson's sense of the term and used the idea of free-association as a cure, without hypnosis, for the first time. If he borrowed from von Schubert and Taine, he transformed this material into a much larger system of dynamic theory.

The essence of Jahoda's lack of awareness of Freud's innovative approach is revealed on page 135 (1977): "Infantile sexuality, too, had been identified by many before Freud. Mothers and nursemaids must have known about it throughout the ages, whatever name they attached to it". This may be so.

The scientific point is precisely that no one had organized infantile sexuality into a causative concept or understood its inter-relation to later development before Freud.

There is an ignorance displayed on the subject of infantile sexuality as a theoretical concept by most writers prior to the nineteenth century. Freud acknowledges two doctors, Lindner, who wrote on sexual thumb-sucking, and Bell who collected more general observations of infantile sexuality. These ideas were tentatively put forward. Divergence rather than convergence characterized the development of Freud's ideas.

Freud began his working life as a laboratory scientist, but his experiences with patients led him to a study of dynamics in the disturbed emotional, individual psychology of persons beginning with the relationship of parent and child. Initially Freud based explanation of physical factors on biology following his medical training. He saw anxiety as sexual tension. It took twenty-five years for Freud to give this up for the psychological theory that anxiety is an ego-defence to some threat, relative to one's past self-experience. This shift from psychological instincts to the ego, or self as Freud tended to see it, was important but Freud oscillated between seeing the ego as the personal self and seeing it as a control system which was only a part of the whole system. This question is of prime importance to psychology. Bronowski, during his work at the Salk Institute of Biology, held that man is both a machine and a self. This would allow for two qualitatively different kinds of knowledge: the knowledge of the machine or physical science and the knowledge of the self which Bronowski saw as 'outside' science.

But how can genuine psychological knowledge be left outside science? Sir Cyril Burt (1968) cites Lord Adrian as commenting, "For many of us still one thing seems to lie outside the tidy and familiar (materialist) framework - the 'I' who does the perceiving". Burt (1968) also cites Professor Mace: "Freud seems to have been almost the first to take mental determinism seriously as a basic explanation in psychology". Burt (1959) maintains: "A man's conscious life forms just one continuous event ... (this) unity and continuity strongly suggest that the constituent events are related to some permanent and central entity, an entity of a special non-material kind, in short a personal self, who owns these events (by reflection) and refers to them as my conscious experiences or states, and describes himself by the proper name of 'I'".

If one adds to Burt's "conscious mind" the "unconscious" of Freud, the field of psychoanalytic investigation becomes a mental psychology actually called for within the climate of thinking in physical science. Freud's work from 1890 to 1938 gives one a basis for the study of the psychodynamics of the human personality. Psychodynamics as defined by a neo-Freudian, Guntrip (1971), is "...the study of the motivated and meaningful life of human beings, as persons shaped in the media of personal relationships which constitute their lives and determine to so large an extent how their innate gifts and possibilities will develop..."

Salzman (1967) points out that in psychoanalytic history there are two coexisting strands. One strand concerns the vicissitudes of "a theory of behaviour in the then prevailing model of energy mechanics and oversimplified concepts of causality...". The other history of psychoanalysis revolves around efforts to "move personality theory closer to a valid statement about man and his psychology... The physical models which have been offered to date do not adequately encompass man, who functions through a system of values as well as physiochemical changes". Freud's ideas fall into two main groups: (1) the id plus ego-control apparatus and (2) the Oedipus complex of family object-relationship. The first group of ideas pictures the psyche as a mechanism for securing homeostatic organization. The second group tends to a personal psychology of parents and children. The Oedipal work led Freud beyond the study of sex with its biological basis, to aggression with its social concomitants of depression and guilt and into the concept of the superego, an aspect of psychic life not traced biologically but traced on the basis of identification with parents. Freud believed once identification with parents occurred, the Oedipus complex was largely overcome.

The developments among neo-Freudians relate to the superego theory which implies the importance of personal object-relationships. H. Hartmann (1964) allowed the superego to decline in importance in his structural theory of the ego while Melanie Klein (1948,1952,1957,1961) used it as a starting point for the new developments she brought to object-relation theory.

Freud's hydraulic model or the apparatus for the control of id-drives is much more impersonal than his Oedipal ideas, with the object-relational life of meaningful and motivated relations between persons as its basis. Freud tended throughout his work to keep these two aspects of his own dynamic drives - the biochemical and the psychological - in oscillation. On the one hand, he put forward the mechanistic theory with the economics and topographical points of view. On the other hand, he presented the personal dynamic theory worked out on the basis of psychological processes within family relationships.

Mechanism had been exemplified in du Bois-Reymond's manifesto of 1842: "... No other forces than the common physical-chemical ones are active within the organism. In those cases which cannot at the time be explained by these forces one has either to find the specific way or form of their action by means of the physical-mathematical method, or to assume new forces equal in dignity to the chemical-physical forces inherent in matter, reducible to the force of attraction and repulsion". Freud partially rejected this mechanistic doctrine of physicalistic physiology and created an abstract, hypothetical psychic apparatus in place of the nervous system in which the operative quantity was psychic, not physical energy. This was not a 'pure' psychology but a convenient abstract theory of a psychic apparatus, based on the brain as he saw it, and probably intended to be eventually reunited with anatomy and physiology. "We must recollect that all our provisional ideas on psychology will presumably some day be based on an organic substructure" (Freud SE 14, 78). In Beyond the Pleasure Principle (1959),

Freud speaks of his views regarding the pleasure principle.. It gives us an example of underlying confusion between the mechanistic and the psychological: "The course taken by mental events is automatically regulated by the pleasure principle ... the course of those events is invariably set in motion by an unpleasurable tension ... it takes a direction such that its final outcome coincides with a lowering of that tension - that is, with an avoidance of unpleasure or a production of pleasure". Here Freud used 'automatically' as a mechanistic term having an unclear psychological meaning. Yet the terms 'pleasure' and 'unpleasure' may have a psychological significance not fully considered by Freud: "We have decided to relate pleasure and unpleasure to the quantity of excitation that is present in the mind... and to relate them in such a manner that unpleasure corresponds to an increase in the quantity of excitation, and pleasure to a diminution". These views stem from psychophysiology: "The facts which have caused us to believe in the dominance of the pleasure principle ... find expression in the hypothesis that the mental apparatus endeavours to keep the quantity of mental excitation in it as low as possible or at least to keep it constant ... the pleasure principle flows from the constancy principle". The constancy principle is defined as the tendency to maintain intracerebral excitation at a constant level.

Freud's use of 'endeavour' in the phrase "the mental apparatus endeavours" suggests purposive teleological striving. This would need a motivated psychic self and that would suggest we are not dealing with an apparatus. If there is an apparatus, on the other hand, this is mechanistic and

the term 'endeavour' is out of context. The idea of homeostasis, either on the pleasure principle or the constancy principle, is troublesome to explain psychologically. If a person devoted himself to keeping excitation to as low a level as possible, he would be bored. Increasing excitation might not be experienced as unpleasure but as a relief from dullness. As Freud in this physiological-quantity theory reduced psychological consciousness to just an accompaniment of bodily processes, he strayed back into scientific materialism. This is valid in itself but it is non-psychology. Psychology, by its very name, must be a study of mental or psychic life in its own right.

It is a valid criticism of the psychoanalytic energy concept that it fluctuates between being Freud's original concept of a physical cathartic quantity traversing the fibres of a nervous system and then being a more purely psychological, non-physiochemical concept. Freud assumed physical energy can be transformed into psychic energy, (SE 3) and also assumed that at the ontological 'gap' there would be 'surplus energy' if the psychic was transformed to the physical and a 'deficit' if physical energy transformed to psychic energy. This interactionism assumed a causal chain, e.g.: a physical event (e.g. a pattern of light) causes another physical event (a neural current from retina to brain) which causes another psychological event (visual perception) that causes a further psychological event (an intention to act) which causes a physical event (a movement of the body).

Lashley and Colby (1957) argue against any evidence for such an interactionist, mind-body dualism: "Neural activity has been sufficiently well explored to rule out such broad assumptions as of the energy of the libido or of the id... The energy of nervous systems is that of transmitted excitations, with its implied limitations and specifications. Energy dissociated from this ... is ruled out by definite experimental evidence ... the derivation of psychic energy from one or a few 'instincts' finds no support in the nature of neural activity ... Where instinctive activities have been analysed experimentally, as in studies of hunger, mating and maternal behaviour, there is nothing that suggests free or transferable energy ... behaviour can be explained without assumption of an energy other than the interaction of specific neural elements". Whatever one may think about the applicability of Lashley's specific experiments to the general human psychological condition to which Freud turned his interpretive insights clinically, Freud clearly did not adopt any one or consistent stance on the mind-body problem. His doctrine of psychic energy is similar to vitalism: it is generally dualistic but not clearly so; he does not postulate a spatial order for psychical systems, only a temporal one: cathexis is called a directional energy analogous but not identical with psychic energy and it is intrinsically directional as vitalistic processes or forces are. Psychoanalysis speaks of psychic energy anthropomorphically as if it "does things" autonomously; a mechanistic structure is postulated within which psychic energy operates. If these parallels exist between psychoanalysis and vitalism, Freud would never have identified cathectic energy with

either 'entelechy' or 'elan vital' nor did he ever refer in the Collected Works to the two vitalists nearest to him as contemporaries, Driesch and Bergson.

If, however, psychic energy is almost functionally equivalent to a vital-force concept, does this vitalism or psychic energy hold up methodologically as a useful scientific idea? McDougall's hormic or purposive psychology had a doctrine of energies which he linked via purpose as the central 'fact' of behaviour to free will, spontaneity and a belief in the Lamarchian inheritance of acquired characteristics. Carl Rogers (1961) has more recently supported a drive towards self-actualization in a directional sense as "...the urge which is evident in all organic and human life ... the tendency to express and activate all the capacities of the organism".

Vitalism degenerates easily into a mere description of events under any label presumed to apply. Is a concept of vital energy useless if we do not have a 'practical' operation to define life energy? Freudians have tended to use theoretical metaphors without rules for expanding them and hence there is a danger that 'systematic' meaning is lost. Nevertheless there is a fair amount of research started which is devoted to measuring psychic energy (D. Rapaport 1960, F. Schwartz and R.O. Rouse 1961 and Ostow 1962). These experiments arouse controversy as to whether they merely serve a Freudian language in which to discuss cases or whether they are a test of basic assumptions. M. Schlick (1953) defends vitalism because the adaptiveness of organisms

suggests an implication of purpose. E. Nagel (1953,1961), on the other hand, claims direction (as a system without an energy concept) is a matter of structure and information only, not requiring an explanation or inclusion of force. Causal concepts of natural science are assumed by Nagel as sufficient for explanation.

If vitalism is partly dead, so too is mechanism. T.C. Schneirla (1945) writes that mechanism went astray by "endeavouring to fit all adaptive capacities directly under physico-chemical rubrics ... and (vitalism went astray) by setting out to bring all cases under a universal supernatural causal principle". Both systems have sought for an explanation of the organic event by reducing it to a 'principle' or 'category' which 'causes' it. Mainx (1955) points out that psychoanalysis keeps to an energy concept that is defined as being directed. That means there is a tautological problem as the concepts tend to be defined only by their connection with the processes they are said to cause.

Psychoanalysts today argue that psychic energy can be interpreted non-directionally and non-existentially as an abstract, quantitative construct with qualities and direction contributed by structures (esp. Rapaport 1960). In physics, energy is only indirectly measurable unlike time, space and mass (Molt 1965) and psychological concepts do not need to be operational in any simple sense. Freud argues (CW 14) "basic concepts ... are not the foundation of science upon which everything rests: that foundation is observation alone. They are not the bottom but the top of the whole structure..."

Holt insists (1965) that the metapsychological theory of Freud could be rewritten without reference to energy and still retain explanatory power. Economic considerations are written into Freud's theories so extensively one might challenge Holt to achieve such a rewrite!

2. Early neo-Freudian contribution towards a self concept

a. Introduction

Harry Stack Sullivan (1953), a neo-Freudian, points out the argument against accepting scientific materialism as a basis for psychodynamic study: "Biological and neuro-physiological terms are utterly inadequate for studying everything in life... I hope you will not try to build up in your thinking, correlations (...of 'somatic' organization with psychiatrically important phenomena) that are purely imaginary ... an illusion born out of the failure to recognize that what we know comes to us through our experiencing of events". Sullivan saw the subjectivity of experiencing as the concern for psychodynamic studies which he defined as interpersonal relations. This introduces a way to disentangle object relations from biology altogether. This has been followed by the work of M. Klein, W.R.D. Fairbairn and D.W. Winnicott who have traced ego development back to their view of its earliest beginnings. Klein kept very little of Freud's psychophysical speculation in her psychodynamic work. She did perpetuate the terminology of Freud's instinct theory and the structural theory of id, ego and superego as well as the oral, anal, phallic and genital stage concepts. Klein saw object-relations as a principle not based on biology or physiology or the machinery of personal life, but thought

its essential quality was the meaningful personal experience of the personal self. In contrast, H. Hartmann (1964), in his system-ego theory, hoped to correlate this with brain physiology and considered social adaptation from a biological aspect. He viewed ego function as an organ of adaptation to be understood biologically. Adaptation as an ego aim ends up, according to Winnicott (1965), as a 'false self' based on conformity whereas he sees a 'true self' as not only adaptive but creative within the environment.

Nevertheless it is astonishing how E. Erikson (1964) continued to try and tie psychoanalysis to biological formation well illustrated by his description of the id:

The 'id' Freud considered to be the oldest province of the mind ... he held the young baby to be 'all id' ... the id is the deposition in us of the whole of evolutionary history. The id is everything that is left in our organization of the responses of the amoeba and the impulses of the ape ... everything that would make us 'mere creatures'. The name 'id' designates an assumption that the ego finds itself attached to this impersonal, this bestial layer, like the Centaur to his equestrian underpinnings; only that the ego considers such a combination a danger. Here Erikson is assuming human nature to be made up of an evolutionary set of layers. He suggests that we are all split-egos, like Centaurs, and therefore more or less pathological. By attaching the ego to a 'bestial' id, he reaffirms the impersonal process of Freud's biological theory, i.e. the id drives and the superego controls, and neglects the personal object-relational thinking that seems ready to break through in Freud but never quite succeeds in so doing.

Erikson has delineated ego-identities and has studied their roots in social organization but he stopped short of whole-person egos which the Freudian school tends to see as a concept similar to the self. Erikson continues to see a strife where self-destruction is avoided only if the ego makes compromises between the id and the superego. There is no clear delineation of a psychodynamic self or whole person. Erikson has only put an inadequate psychic foundation underneath his ego-identities: the bestial underpinnings of the Centaur.

b. M. Klein - an object-relative self

Melanie Klein's structural theory developed by interpretation of the internal psychic world of ego-object relations. Unlike Erikson she saw these internal struggles apart from the broad social environment. They were conceived to be made up of life and death instincts, sex and aggression. The inner drama becomes projected onto the outer world when the baby begins to be able to discern external objects. Klein sees a baby terrorized by his own death instinct and therefore having difficulties in perceiving real objects in an objective way. She believed that the death instinct is projected onto the breast in the first instance and is then reintrojected. This would mean the baby's outer-world experiences would double anxiety, as the death instinct would colour the reintrojection of the breast. Klein then claims that envy is an innately determined constitutional part of all infants' natures. Between envy and the death instinct, Klein leaves one little hope for any

friendly objectivity in personal relationships and the environment is left with little role of its own to play. The environment is seen as merely 'confirming' the baby's primary anxieties and inner conflicts.

The question one must put to the Kleinian school is this: if the object-world is of so little primary or intrinsic value, how can we speak of genuine object relationships? Klein definitely saw the death instinct as overshadowing either the love or life instinct and claimed it as the ultimate source of anxiety and persecutory feelings. In working with children of two, Klein claimed their fantasy life supported this theory of innately fundamental conflict. This fantasy world of the child contains emotion-laden relationships within which a variety of good and bad objects become mental images of parts or aspects of parents. Life is viewed as totally a matter of ego-object relationships. At primitive level, part-objects such as the breast or penis images develop into whole-objects which the infant may experience as good or bad. Bad experience is projected, reintrojected and then projected onto parents.

Klein believes instincts are object-seeking. The child's first love-object is its own ego in primary narcissism. The first hate-object will create the child's anxiety and this is postulated to be its own death instinct, or Thanatos, which aims to return the organism to an inorganic state. On this theory the breast is necessarily the "bad breast" as it has received the projection of Thanatos. As the baby cannot fully control the breast containing the projected Thanatos, he introjects the destructive force and

changes Thanatos from an instinct into an object both literally and in fantasy. On this theory external object-relations give concrete expression to Klein's theory of primary forces and their hypothesized internal relations.

This curious theoretical route to object-relations is accepted only by the Kleinian school. What is much more acceptable to the neo-Freudians generally and also to the neo-Jungians as we have seen, is that there is in the baby a development of an inner world of fantasy; this inner world is object-relational and would be a counterpart of the ego's relation to the world of real objects, at first centred on the mother. The end result of Klein's theory is that all therapeutic work would need to centre on the patient's winning back the reality and importance of the external world which was denied and distorted at the start of life.

Kleinian metapsychology rests on the domination of the death instinct. It is more philosophical or like a religious belief than a scientific theory. What Klein has contributed is to go further back than Freud into the beginning of life in tiny children. She worked with infants using play and dreams for conscious expression of the internal psychic life and interpreting symptoms of disturbed behaviour-relations as clinical material to support her concepts. Klein reworked Freud's stages-of-development theories. Freud saw all libido as sexual and the oral, anal and genital zones were regarded as possessing libidinal drive for the pleasure of de-tensioning. It would be clinically surprising if the small child did not fasten on to these obtrusive

phenomena in his body as they often attract the disapproving attention of anxious parents. Freud saw the oral, anal, phallic and genital scheme as a set of stages based on instinct maturation. Klein shifted interest to the quality of ego-experiences in object relations. She proposed two object-relational positions, both seen as problems to the child. They are not just transitional stages since they may not be left behind psychologically in the adult. Klein named the two positions the depressive position and the paranoid-schizoid position. Guntrip (1971) argues that the schizoid position should be considered separately from the paranoid as the infant is withdrawn from all object relations if schizoid, rather than being in relationship to objects but feeling persecuted by them, as in the paranoid position.

In the depressive position, Klein postulates the baby has mostly overcome the paranoid and schizoid positions and has whole-object relations. The child then is postulated to feel guilt and depression when discovering he can hurt those whom he can also love. These schemata are totally non-biological. The two positions may oscillate between themselves and the oral, anal and genital clinical phenomena are seen as symptomatic of conversion hysteria with emotional problems fastening on to one body organ or another to find psychic discharge.

Klein did not develop ego psychology: rather the id and the superego play an important part throughout her writing (1932, 1946, 1948, 1952). With her infantile arena of Eros and Thanatos in permanent struggle, Klein saw the ego as creative and loving, the superego as hating and destructive as it contains the internalized parent as a bad

object. This brings clarity to ego-splitting processes and is a fully psychodynamic clinical approach to object relations as the basis of internal development in infants. Klein realized that clinical work was, in itself, object-relational between analyst and the child being analysed. Freud had developed his ideas of transference, Oedipal problems and his superego concept from clinical work. Klein left the underpinning of Freud's idea of quantitative gratifications of instinctual drives, to be concerned with good and bad object-relationships and the concomitant guilt, reparation, love and hate.

I wish to point out that Klein's theory in no way reflects the baby's mixed good and bad experiences of external objects in real life. Instead, even in the womb, the baby is seen to have a split personality as its constitutional nature has a love or Eros instinct permanently threatened by a death or Thanatos instinct. Thus the origins of this internal world where the baby is thought to live in dread of his own death instinct exist before the baby experiences the mother as good or bad. As the baby projects the death instinct onto the breast, the mother becomes bad as the baby thinks she carries his own innate badness.

Klein argues that to counteract this the baby must internalize a 'good breast'. But how can the baby ever experience a good breast at all On Klein's theory? If bad-object experience is primary and the death instinct always ruins any projection of the love instinct onto the mother, the problem is insoluble and illogical.

c. W.R.D. Fairbairn - a whole self

The contribution of W.R.D. Fairbairn (1954a) is particularly germinal both to psychoanalysis and to this paper. Some of the ideas put forward here will influence the final model of the self to be proposed (Chapter VI). In proposing the 'id' Freud proposed layers of the mind, the id, ego and superego, which were in conflict with each other. The archaic layer or id was seen to be in conflict with the ego or more recent cortical layers.

Fairbairn totally rejected the id concept as he saw the origins of the concept in Freud's mind as due to a conversion hysteria symptom. Freud made an intellectual attempt to project the infantile, angry, needy life-urge of an infant onto something ("the id") outside the ego or real "I". Fairbairn rejected Freud's divorce of structure and energy seeing this as outmoded Helmholtzian physics. He argued against cortical layers as a concept and believed in a psychosomatic whole. "Impulses cannot be considered apart from either object or ego-structures. Impulses are but the dynamic aspect of endopsychic structures and cannot be said to exist in the absence of such structures. Ultimately 'impulses' must be regarded simply as constituting the forms of activity in which the life of ego-structure consists" (Fairbairn 1954a).

Fairbairn kept to a whole-human-being concept and, like Fordham, saw the baby to be a whole psychic self from the beginning. He speaks of a "unitary dynamic ego" and rejects the idea that the ego is a later synthetic growth.

He rejects Freud's idea that the baby begins as a bestial layer of animal instincts blindly seeking detensioning. Fairbairn believed the baby to be a whole dynamic being with ego-potential. The baby is a person - not a few awkward bits of personality needing fitting together.

This brings a new question forward as to what is important in the first weeks of life. It is no longer primarily the question of quantification of instincts, the reconciliation of independent psychic structures or the satisfaction of instincts. Instead preservation or restoration (if lost) of the psychic wholeness becomes the question of first importance. Fairbairn considered that biology studies somatic processes by methods that tell us nothing directly about subjective experiences. The opposite would be just as true: that subjective experience of a psychosomatic whole tells us nothing directly about biological processes. Libido is seen by Fairbairn not as a biological "per se" which he claimed would be a reification of only one element of a more complex process. He thought a "libidinal ego" could libidinize any part of the body. Not just mouth, anus or genitals but skin, eyes, hands and muscles are included in object relationship. Thus "the goal of the libidinal ego is the object" for Fairbairn and the self has a libido as a basis for its object-seeking drives.

Fairbairn rejects M. Klein's views in an outright manner. He sees the mother who is a whole ego as enabling the baby to perceive his own whole ego. There is no postulation of a death instinct in operation. Ego development depends on initially good object-relations or if that does not happen

therapy may repair this. He sees the baby as only internalizing a bad mother if she is actually not good enough. There is no initial projection of death anxiety onto the mother's breast. Fairbairn thinks mothers are usually not wholly bad, so the baby splits his internalization into a 'good mother' and a 'bad mother'. The 'good mother' is projected back onto the mother to enable an idealization that permits the relationship to function for the baby. The bad internalized objects threaten the good object and guilt and depression may occur. Fairbairn hypothesizes that the bad internal object is split into an exciting object and a rejecting object. Needing the exciting object sets up baby to mother dependencies and to control and partly relieve this the rejecting object is identified. With this an "anti-libidinal ego" develops through identification with parents when they refuse to meet the baby's needs. Fairbairn's system is complex; he sees three basic fantasied mother-types; 1) the mother who tantalizes needs but does not satisfy them, i.e. the exciting object; 2) the authoritarian mother who actively denies satisfaction, i.e. the rejecting object; 3) the neutral mother whom the child tries to please, i.e. the ideal object.

Object splitting occurs as both the exciting and rejecting objects are repressed while the ideal object is projected back into the real world by the baby. With this splitting goes an ego-splitting into three possible parts: 1) The infantile libidinal ego is always stimulated by the exciting object, needing the personal relations for ego growth. In adults this is manifest as compulsive sexuality, need for appreciation and chronic overdependency.

2) The infantile anti-libidinal ego, which identifies with the rejecting object, results in underdeveloped conscience, hostility and self-persecution.

3) The central ego, related to the idealized parents and conforming to them after disturbing elements of both ego and objects have been split off and repressed, may become split-off itself.

Splitting processes complicate every stage of later development because there is so much loss of unity between self and object. Fairbairn reinterprets Klein and rejects the inevitability of the schizoid position while accepting the depressive and paranoid positions. He sees the schizoid position as only occurring if sufficient fear creates a flight from object-relations. This would imply a loss of ego-wholeness. Fairbairn's contribution presents an object-relations theory with great clarity and fewer assumptions than Klein's. The problem of the origins of the ego was neglected, however, by both Fairbairn and Klein.

d. H. Hartmann - an adaptive ego

We have pointed to biology and psychodynamics as having been confusedly mixed in Freudian theory. H. Hartmann (1964) in an essay on ego psychology argued that Freud's theory of neurosis was built on biological concepts in that man's relationship to the environment should study action as its focus, not being. By relationship, Hartmann meant an activity-relation or the behavioural viewpoint of biology. Psychoanalysis began with a defective realization of the concept of 'person' or 'self'. G. Groddeck (1949) wrote:

"We should not say 'I live' but 'I am lived by the It'". The 'It' of Groddeck is a hybrid of the 'id' concept which Hartmann saw as the "personality's central sphere". This was thought to include the preconscious apparatus, the autonomously developing apparatus and adaptation of the ego which he defines as the "organ of adaptation". Hartmann developed his ego-theory as having two functions; one to solve the conflicts of the id and the superego and the other to concern the ego with coming to terms with the environment. Hartmann saw the ego as adaptive; either as autoplasmic, or altering oneself to fit the environment, or as alloplasmic, altering the environment to fit in with oneself.

But here we leave biology, for a human being may refuse to adapt to his environment to save a truth, a moral or political idea that is more valuable to him than biological survival. To speak of an ego, in this context, as only an organ of adaptation becomes unsatisfactory. Adaptation needs to be replaced by a meaningful relationship under the ego's direction, as adaptation can only express a one-sided fitting in. Personal relations demand mutual self-fulfilment of two or more persons. Hartmann (1975) struggled to confine developing human phenomena within a straightjacket of prepersonal biological concepts: "The crucial adaptation man has to make is to the social structure and his collaboration in building it". We may describe the fact that the social structure determines, at least in part, the adaptive chances of a particular form of behaviour by the term 'social compliance'. This is often coined in analogy to 'somatic compliance'. Hartmann wants to see psychoanalysis

as being only about the organism adapting to the external structure of the world, instead of a unique development of the psyche's ego-potential in order for a person to relate to other persons. Hartmann wants to limit object-relations to a study of their relation to biological equilibrium. He does not see object-relations as crucial to the maturation of the whole-person-ego. He sees the twin aspects of environmental compliance as the organism adapting to the human environment by both somatic and social compliance in a kind of parallel. But Hartmann goes beyond biology when he writes, "By adaptation we do not mean only passive submission to the goals of society but also active collaboration on them and attempts to change them". Guntrip (1971) points out, "When a human being challenges or opposes his environment on principle, in defence or pursuit of positive values, seeking to promote more genuine personal relationships, then we are dealing not with biological adaptation to secure survival but with psychodynamic motivation to safeguard the intrinsic quality of personal living". Here the person, the quality of selfhood, is more important than survival which is hypothesized as not worthwhile without selfhood.

3. Recent neo-Freudian contribution to a self concept

a. D.W. Winnicott - the real self and the false self

In "The maturational processes and the facilitating environment" (Winnicott 1965), biology and psychodynamics are related in an essentially object-relational analysis. The biological given are the maturational processes or

innate constitutional potentialities which unfold throughout individual life. These potentialities do not exist in vacuo. They require an environment that supports and permits individual growth. This releases the true or latent self. Unsatisfactory environment forces a false self to emerge in conformity with, or rebellion against the unsatisfactory condition.

Winnicott maintains that it is the beginning of life, and particularly the quality of mothering, that facilitates the child's ability to develop his real self. "We notice in the expectant mother an increasing identification with the infant ... and a willingness as well as an ability on the part of the mother to drain interest from her own self onto the baby... This is the thing that gives the mother her special ability to do the right thing. She knows what the baby could be feeling like. No one else knows. Doctors and nurses may know a lot about psychology ... they do not know what a baby feels like from minute to minute because they are outside this area of experience" (Winnicott 1965a). The total physical and emotional dependence of the baby at first requires the mother to give him as near a perfect security as she can. Gradually the mother must allow the baby to gain an increasing measure of independence without basically disturbing the inbuilt sense of relationship and security. Dependence and independence should ideally be complementary. Where the person one turns to must be the person one turns away from neurotic conflict of a schizoid nature develops. The origin of this lies in the failure of initial mothering to provide both sufficient support and freedom.

Winnicott uses his term 'ego-relatedness' to describe the capacity of a child to experience being alone in the presence of the mother or a representation of her such as a cot or a pram. "Ego-relatedness refers to the relationship between two people, one of whom at any rate is alone; perhaps both are alone yet the presence of each is important to the other" (Winnicott 1965b). This is the sharing of "a solitude that is relatively free from the property that we call 'withdrawal'". Winnicott describes the building up of the toleration of the mother's absence by the child in a useful formula: the baby comes to bear the mother's absence for X minutes, but then the baby feels he has lost her unless she comes back. If the mother is away X+Y minutes she must restore her image by special spoiling and mothering. But if she is away X+Y+Z minutes, the baby sees her as a stranger because his ego has begun to disintegrate. Acute anxiety of this kind leads to the schizoid state. This Winnicott relates to adults who, if they have acute feelings of isolation, unreality and non-entity, are re-experiencing basic ego-unrelatedness caused by maternal failure in infancy. A depersonalized person is hard to reach because this schizoid core is "(1) withdrawn and regressed in fear, (2) repressed because the weak infant is unacceptable to consciousness, (3) disintegrated in the beginnings of its ego-structure, thus feeling unreal and not a proper person, and (4) ... unevoked in its potentialities, never fully called to life in the unfacilitating environment" (Guntrip 1971).

We have already discussed Winnicott's transitional object (often the first toy) that the child experiences as standing for the reliability of the mother. As the first symbol of relationship, Winnicott sees this object as the beginning of culture. This requires us to see culture as an expanding elaboration of symbols for representing our life as persons. We have seen that this was Jung's viewpoint exactly. Ego-relatedness would be the foundation of selfhood, the feeling of 'inbeingness' as a definite self. Winnicott distinguishes between two types of experience, orgiastic, i.e. the satisfaction of tension-reducing instinct as in Freud, and non-orgiastic which is a reliable ego-experience. For example, Winnicott observed that a baby will stay at the breast after feeding, not for food or instinct-satisfaction, but for relationship. He specifically distinguished "this field of the bodily relationship between baby and mother" from the biological idea of "oral eroticism with satisfaction". In "The location of cultural experience" (1967), Winnicott states: "The phenomena I am describing (that is, basic, secure personal relations) have no climax. This distinguishes them from phenomena that have instinctual backing where the orgiastic element plays an essential part and where satisfactions are closely linked with climax ... Psychoanalysts who have rightly emphasized the significance of instinctual experience and reaction to frustration have failed to state with comparable clearness or conviction the tremendous intensity of the nonclimatic^c experiences of relating to objects". And again, "We now see that it is not instinctive satisfaction that makes a baby begin to be, to feel that life is

real, to find life worth living ... the self must precede the self's use of instinct. The rider must ride the horse, not be run away with it".

Winnicott thus creates a new and revolutionary position beyond the classical view of psychoanalysis: that instinct phenomena are to be seen as subordinate partial experiences relative to the whole of the person-ego growing as a result of 'good enough' experience of personal-relations. The human infant becomes a self, or person-ego from his original state of mergence or fusion with the mother and identification with her in varying degrees in the period when he mentally separates out from her. Later, individuality would be built upon a basic self of ego-relatedness which enables an adult to experience isolation, suitable self-abnegation or self-devotion within a mature context of giving love without loss of ego-identity and an ability to defer gratification. Obviously this involves the dissolving of the earliest ego identifications into a real object-relations with a strong self-identity and capacity for self-development.

A theoretical position can now be summarized: no longer can one think that psychic life originates in physiological processes which are purely internal. As the fertilized cell results from two adult psychosomatic whole persons, the psyche and the soma are taken to develop together from the start. The first environment of the child is inside the uterus. There the birth 'trauma' can cause anxiety. Good-enough mothering can allay this and help facilitate object-relations experience. Subject and object relations probably begin with the baby's in utero response to noise, temperature of the uterus, etc. This suggests that libido

may be one basic psychophysiological drive towards the object world. It is here that Winnicott links to Jung, who saw libido as the sum total of all drive. The ego is in control of a part of this and develops a structural identity by organizing experience as it 'goes along'. Here we are reminded of Fordham's neo-Jungian contribution of deintegration as an ego-development theory. The self, in a Freudian setting, comes into its own with Winnicott. Aggression is seen as one part of drive that develops in the service of the libidinal ego, which in turn is part of the whole psychesoma whose fundamental energy is libido.

b. H. Kohut's psychology of the self

b-1 Erotogenic zones and self

H. Kohut (1977) has been the greatest Freudian champion of a "nuclear" self within "neo-psychoanalytical framework". His reconsideration of orality and anality well illustrates his theoretical approach. In the Freudian school, orality was considered, if fixated at an early level of development, to be related to an ego-infantilism. Kohut believes that neither drive fixation nor ego defects are the primary or central locus of the problem. Kohut argues that if the self of the child has not been securely established because of disturbed empathic responses by the parents, the enfeebled self turns to stimulation of the erotogenic zones and these drive-aims of the self, or following Fordham, its deintegrates, attempt to assure itself that it is alive, by over-deintegrating into fragmentation. This forces the self to

turn definitely to the erotogenic zones for ego-support secondarily bringing about oral or anal drive orientation. The ego becomes enslaved to drive aims that correlate to the stimulated body zones.

In anality, Kohut maintains it is not enough to say that because there is an anal fixation, a penuriousness develops. Rather one should look at the early stages of consolidation of the self which occur during the anal period. Kohut believes the child is seeking confirmation of his forming self through a mirroring self-object, the fecal gift. The child feels this "fecal-gift acceptance or rejection" of his tentative and vulnerable "creative-productive-active" self (Kohut 1977) as confirming or non-confirming to his self-image. If the fecal-gift is rejected, pathogenic and unempathic personalities may develop or a fragmentation-producing preoccupation with feces may occur. Kohut would go so far as to suggest that a child will abandon his joy of self-assertion and turn to the pleasure of fragments of the body-self when cohesion during the early feces-producing period is deterred. This loss of cohesion affects the learning, controlling and maturing of the total child.

Anality on Kohut's theory is not just a reference to anal fixation or retentiveness but requires a genetic reconstruction: a child that feels his self to be empty or crumbling tries to obtain reassuring pleasure from stimulation of a fragment of his body-self. This indicates that Kohut does not see libidinal drive as just attaining

momentum in the child but that drive experience is subordinated to the child's experience of the relation between the self and self-objects.

Obesity, for an oral example, was seen by earlier Freudians as either a flight from castration fears or from oral indulgence. This was believed to lead towards a primary drive-fixation at the oral level. Kohut believes it is not the child's wish for food that is the primal configuration. The psychology of the self as developed by Kohut asserts that the child from the beginning shows a need for a food-giving self-object. Empathically modulated food-giving is what is needed, not food as such. If this is unfulfilled, then the broader experience of being a whole, or an appropriately responded-to self disintegrates and the child retreats to a fragment of the larger unit, to an erotogenic zone causing depressive eating. Kohut argues that the basis of movement towards renewed health must be an awareness of this depressive-disintegrative reaction to an unempathetic self-object milieu, not an increasing awareness of drive (via education). Drive fixations and ego correlations to erotogenic zones occur when the self is enfeebled. The unresponded-to-self has not been able to transform its archaic grandiosity and its archaic wish to merge with an omnipotent self-object into self-esteem, realistic ambition and attainable ideals.

Kohut does not see oral and anal problems as a conflict-of-forces, i.e. drives and defences, with defences that achieve a "secondary autonomy" from drives. He sees the problem conceptually as a constituent of the self that

has become reconsolidated because of specific relations between self and self-object. The decisive issue is not that functions expressing the pattern of self are autonomous, but "that a self that had been threatened in its cohesion and functioning in one sector has managed to survive by shifting its psychological point of gravity towards another one". A child will shift from a frustrating self-object to a less frustrating one.

b-2 Oedipus complex and self

Freud saw the Oedipal conflict in terms of drives and defences involving compromise formations or psychoneurotic symptoms within the hypothetical space of the psychic apparatus. Kohut (1977) believes that this classical theory fails to do justice to experiences that relate to the task of building and maintaining a cohesive nuclear self. The results of this process - whether triumph or dejection - are not described by the Oedipal theory.

Are Oedipal neuroses and self-disturbances related?

There are two theoretical possibilities:

- 1) An emotional retreat from Oedipal conflicts may lead to a chronic defensively-held narcissistic position.
- 2) If the self fragments, the mortification experienced by the child may lead to defensively held Oedipal positions.

The classical Freudian theory stated that sexual desire for the heterogenital parent occurs concomitantly with rivalrous and murderous wishes toward the homogenital parent. Although with Fairbairn we have considered the id concept

unsatisfactory, in classical theory the id was changed by the repression of the Oedipal conflict into it, and the superego was influenced by an internalized imago of the hated homogenital rival. No explanation was ever given by Freud as to why the superego should not contain an imago of the loved heterogenital figure as well. This walling off of the id and superego from the ego was to prevent an infantile Oedipal neurosis. The unsolvable aspects of such a theory are many. The energy required to wall off Oedipal neurosis would take an enormous amount of libido away from intellectual and social learning. The ego could only function independently from infantile sexuality and aggression if the id and superego barriers are sufficient and permeable to any intercalated helpful structures. This suggests the self as a candidate for the precondition to the Oedipus complex. The child would have to see himself as an independent centre of initiative before he could experience the object-instinctual desires that lead to conflict and secondary adaptations of the Oedipal period. If the child has a cohesive, continuous self he can experience assertive-possessive, affectionate-sexual desires for the heterogenital parent along with assertive, self-confident, competitive feelings towards the parent of the same sex.

Parental response to the Oedipal stage has been neglected prior to Kohut's contribution. He points out the parent may become counteraggressive from sexual stimulation or may respond with joy to the child's developing vigour and assertiveness. Where parental responses appropriately inhibit the child's unconscious aim, he is helped to modulate

his Oedipal drive expression. If a father allows an Oedipal son to merge in being, he helps the child to self-consolidation and pattern-firming. Where there is no parental echo in response to an Oedipal child, the Oedipal nature becomes more malignant. Where joy at the child's development is well-echoed by the parents, it facilitates the child's inner awareness of a forward move to new experience from his parental self-objects. Kohut defines the Oedipal complex within a self-psychology as a matrix that influences the firming of the independent self. Kohut sees both the growth-promoting aspects of the period and its pathogenic dangers as equally important. If the end of libidinal strivings is to secure a 'self' (see Jung's individuation), then the loss of self breaks up his body-mind in space, thus also breaking up the sense of continuity in time. Another danger to the self from Oedipal strivings is aggression which is a topic in itself.

b-3 Aggression and self

The classical Freudian position places aggression within drive theory. The oral-sadistic drives are tamed to using utensils to eat cooked food instead of tearing the flesh apart. Destructiveness is postulated as the primary given and the overcoming of killing is seen as a secondary aspect to tame or overcome destructiveness. What the grandiose fantasies of the self may have been when tearing apart and devouring and how they relate to using cutlery and remaining upright as food is lifted to the mouth is open to speculation. Although Kohut acknowledges the

force of aggression, he sees it as a disintegration product related to the psychopathology of self-objects in childhood. He sees man's destructiveness as a secondary phenomenon arising from the failure of the environment to meet the child's need for optimal empathic responses. Aggression is thus considered a psychological phenomenon rather than an elemental one. Like the inorganic constituents of the organic molecule, aggression is a part of a child's assertiveness and usually remains "alloyed to the assertiveness of the adult's mature self".

The real danger to the cohesion of the nuclear self is inability to overcome narcissistic injury, a threat argued by Kohut to be more serious than that of physical danger, male dominance or penis survival. Narcissistic injuries would be described in self-theory as occurring if in childhood the self-objects' selective responses have not laid down the usual nuclear self. This leads to an acquisition of nuclear ambitions and ideals not characterized by a primacy of phallic-exhibitionistic physical survival or an active dominance. The result is a toleration of death and martyred passivity as fulfillment seen in Buddhist self-immolations and the mass suicide of religious groups. Another variant reaction can be the appearance of a victorious survival and social dominance at the price of abandoning the core of self with a resultant sense of despair and meaninglessness (e.g. the problem behind the suicide of Marilyn Monroe).

Aggression is incorporated into self theory as a constituent of the broader self configuration, not as a primary instinct striving for outlet as Freud thought. The baseline in a baby's aggressive behaviour is not the raging-destructive baby but the assertive baby whose aggressions are a part of the firmness with which he makes demands on his self-objects. When empathic responses are delayed, rage is not seen as primary. Leboyer's (1975) films of births provides evidence that the raging cry of the newborn baby is not an unalterable given. He demonstrates that if the baby is responded to with empathy from the beginning, aggression is initially absent.

The primary configuration is assertiveness. This soon gives way to a larger configuration isolating the assertive component and transforming it secondarily to rage. In utero, the baby has had nine successful months via assertive development not via rage. The baby re-establishes his confidence, innately developed in utero, by healthily and assertively announcing his wants. There is no primal scream, it would be entirely secondary already at birth. This non-destructive assertiveness serves the maintenance of the rudimentary self. Over time, more mature forms of assertiveness develop in which aggression is subordinated to the performance of tasks and can subside when goals are reached.

When the child is frustrated in his phase-appropriate need for omnipotent control over the self-object, a chronic narcissistic rage leads to Klein's 'paranoid position' discussed earlier. A 'conviction environment' is missing

and a lifetime of disintegration products may occur. Kohut (1977) is anti-Kleinian in that he sees rage as a regressive phenomenon: a fragment isolated from a more comprehensive configuration of assertiveness and arising from a deficiency of empathy on the part of the self-object. When the child's assertiveness - as healthy merger-wishes with the self-object - has remained unresponded to, the idealized self-*imago* breaks up into fragments and the merger needs are sexualized and directed only to the fragments. This lost merger is accompanied by a chronic narcissistic rage of sado-masochism in fantasy and action. This type of aggression may be held throughout life, e.g. Hitler's followers, Kleist's Michael Kohlhaus and Melville's Moby Dick. Lessening of narcissistic rage can be accomplished therapeutically by a reactivation of the original need for the self-objects' responses and the meeting of those responses to a better extent. Governments are parental self-objects; self-cohesion can be stimulated through competitive sport and increasing self-esteem within group activities.

A child's healthy exhibitionism will be affirmed by a self-object mirroring his self-assertion. Normal exhibitionism represents the whole self and the whole body. Single "greatness symbols" take over: urinary stream, feces or phallus. Where parental admiration fails, isolated sexualized voyeuristic preoccupations concerning adult power take over e.g. penis or breast. The original self-object constellation includes fragments both of the grandiose self (exhibition of one's own body) and of the fragments of the

idealized object (voyeuristic interest in others' body parts). The sado-masochistic forms of aggression develop where this constellation becomes pathological.

b-4. A self psychology

I would like now to turn to the broader thesis of Kohut's psychology of the self. He fully supports the position that self/self-object relations are precursors of psychological structures. This postulates that it is a transmuting internalization of the self-objects which leads gradually to a consolidation of the self.

Kohut analyzes why a patient becomes angry if there is an attack on his resistances. Freud (1938) called this "resistance against the uncovering of resistances". Hartmann (1950) described this anger in another way: "... metapsychologically speaking ... reaggressivized energy of the countercathexes, mobilized as a consequence of our attack on the patient's resistance". Kohut points out that Freudians have tended to think of this anger occurring because a correct interpretation by the analyst has loosened defences activating the aggressive energy bound up in them. With this Kohut disagrees. He feels the anger is a narcissistic rage caused by a repeat that is occurring of the patient's early experience of faulty, nonempathic responses by the self-object. The precarious self-of-the-child as revived in the analytic situation depends for maintenance on adequate empathic responses of the self-object so the patient experiences the analyst as a nonempathic attacker of the inferiority of his self. Any break-up of

the primary self-experience, in which the merger of the child and his empathic self-object are seen by him to be one, is felt to be threatening.

Kohut points out that within a context of self-psychology, a psychology that differentiates objects that are experienced as part of the self from those that are experienced as independent centres of initiative or true objects, there is a secure vantage point from which to control anger. Kohut here shifts emphasis from a mental apparatus as framework to a social psychology.

There is an important link to omnipotence, a feature of the etymology of the term 'self' as presented in the Preface. Kohut assumes that just as the respiratory apparatus of the newborn infant may be said to 'expect' oxygen to be contained in the atmosphere so, too, psychological survival depends on a human milieu of self-objects that is responsive to his psychological "need-wishes". If the child's psychological balances are disturbed by under-adequate mothering, this will be empathically perceived and responded to by the child. The mother, or surrogate, as the earliest self-object will try to remedy the child's need through action to restore the infant's homeostatic imbalance. The child's anxiety, drive needs and rage are reinterpreted by Kohut to be the child's experience of disintegration of the preceding broader and more complex psychological unit of unquestioning assertiveness. This brings about empathic resonances within the maternal self-object. The normal child moves in phase with experiences of merger with the omnipotent self-object, or mother,

if she gives him appropriate vocal and tactile contact and she holds, carries and talks with the child. The child experiences the feeling states of the maternal self-object as if they were his own and Kohut (1977) believes the child and mother or self/self-object unit experiences these feelings in the following order:

1. mounting anxiety in the self
2. stabilized mild anxiety in the self
3. a 'signal' from self-object not to panic
4. a following calm and absence of anxiety in the self-object.

Following these stages the rudimentary self is re-established over the disintegration products. Defects in these procedures are believed to occur mainly as a result of empathy failures - from the part of the self-objects. This would be caused by the self-object's narcissistic disturbances or a latent psychosis. Kohut believes that, if the environment is otherwise responding to the child with a full range of empathic responses, serious deprivation such as food shortage or war do not affect the possibility of a full development of the self in childhood. He does not defend such a controversial statement adequately however.

Kohut's ideas can be reduced to a two-step sequence;

A) The self-object responds to the child's affect signal (not an affect spread) enabling an empathic merger of the infant's self with the more mature psychic organization of the self-object. B) This need-satisfying action is performed by the self-object.

When this merger with the omnipotent self-object is deprived, the child cannot experience the sequence of spreading anxiety, anxiety signal and calmness. This means he is deprived of building structures capable of dealing with anxiety which is itself a normal tension-regulating structure. On the other hand, if the self-object over-responds with hypochondriacal attitudes, the child noxiously merges with this, causing himself panic or the attempt to wall himself off from panic. Then a weakness in the ability to curb affects of anxiety results. This aligns the pathogenesis of anxiety proneness and affective disorders with the merger of the nascent self with the self-object's depressive and/or manic responses.

Kohut argues convincingly that the affective disorders were not well-enough formulated by the earlier Freudians on the basis of drives and structures, e.g. either depression, seen as neutralized aggression turned away from the object to the self, or as the superego sadistically attacking the ego. Kohut restates the precursor of psychological structure to be the merger of self with the omnipotent self-object considering this theory to be a better and more parsimonious framework for the affective disorders than earlier Freudians achieved.

Problems remain for psychoanalysis and its new inclusion of a self-concept. As the adult environment reacts to the baby as if it had formed a self, there may be a danger of "adultomorphic" distortion since the baby's rudimentary self is seen to be the juncture where the baby's innate potentialities and the self-object's expectations converge.

This raises practical problems of when a mother should first see her baby: should the baby be cleaned up from the delivery first?

b-5. Conclusions

We may conclude from this review of the major Freudian contributions to a psychology of the self that the self-concept is needed to explain the pathology of the fragmented self (autism and personality disorder) and of the depleted self (depression). Freud's omission of a definite self-concept is definitely repudiated. Determinism may be adequate to explain that part of a man's psychological activities which are performed in reactive analogy to external world processes and the laws of physics may be an aid to this conception. Some phenomena, however, require for their explanation a self, or posited configuration, which is a centre of initiative, whatever its history, that as a unit tries to follow its own course.

It is generally thought that the newborn infant does not have a reflective awareness of himself as a cohesive unit in space and time. The baby is instead fused to an environment that does experience him as possessing a self and anticipates, causing a channelling of the later self-awareness of the child to occur. The mother or surrogate responds to some but not to other of the baby's idealized images and the different ways the baby mediates his ambitions. The baby's nuclear self is based on the responsiveness of the nuclear selves of the self-objects. The damage of the parental generation is mirrored in the baby.

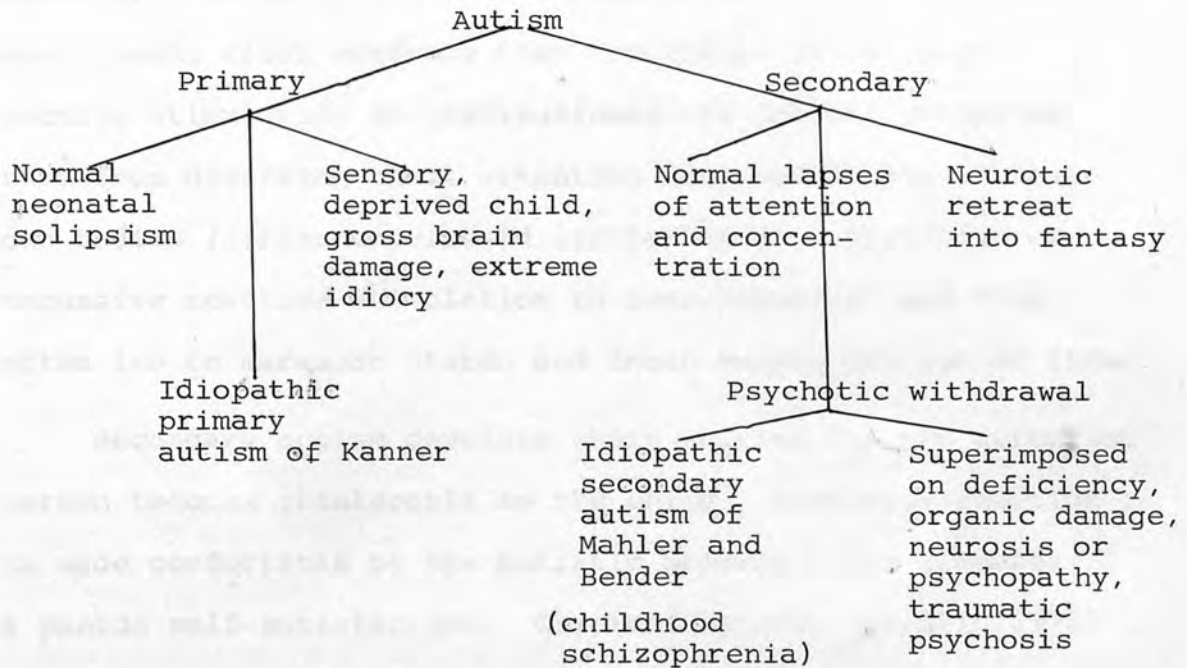
Chapter III Autism: the childhood self in disorder

1. Introduction to autism as a clinical concept

We have now seen a theory of the self as put forward by the neo-Jungians. In childhood, a particular disorder of the self is infantile autism and the ground needs to be laid on which to consider autism theoretically. The general pioneer work on the syndromes of infantile autism which particularly relates to this study of the self has been done by Bender (1953, 1959), Despert (1938, 1951), Kanner (1948, 1954) and Rimland (1964). The psychological structure and origins of autism have been studied by Freudian and Kleinian analysts: Bettelheim (1956, 1967), Isaacs (1948), Klein (1932), Mahler (1955, 1969, 1975), Tustin (1972) and Meltzer (1975). It is the thesis of Part II that a Freudian and Kleinian foundation can now be extended and modified to include a neo-Jungian concept of the self.

Despert, in summing up his early work with autistic children in 1938, described twenty-nine children over a period of seven years who had infantile autism. In all cases he noticed a failure to achieve emotional relatedness to reality. One symptom of this was their use of words echoically as signs, but never as direct communication with others. The autistic language had too little ongoing function or external feedback to engender its normal development. Bender (1959) has pointed out that this lagging maturation occurs in all patterned behaviour of autistic children be it autonomic, perceptual, motor, intellectual, emotional or social. Rimland (1964) agrees with this and describes autism as a 'total integrative failure'.

Anthony (1958) has grouped the various syndromes of infantile autism into a workable schema:



To grasp an overview of the field it is necessary to define primary and secondary autism in dynamic terms and then to define primary and secondary narcissism. This classification relates primary and secondary autism to primary and secondary narcissism. In considering primary autism it is useful to remember that in general the primal cavity in the infant's early experience is his mouth and that he interprets his mother's significant caring parts through his own most significant body zone. That is, hands, breasts or face can be experienced in autistic affect as a mouth. In primary autism these 'mouth' feelings prolong into a mouth-experienced 'hole' type of depression. Bowlby (1969) has emphasized that infants need more than available food. They require "bearable sensory stimulation from without,

and the relief of excitements arising from stimulation from both internal and external sources" (Tustin 1972). Clinical material from Spitz (1955) and Shevrin and Toussieng (1965) has brought clear evidence that too little or too much tactile stimulation in institutionalized infants prevented them from diverting their attention from sensations in their own bodies (either unrelieved irritation at deprivation or excessive reactive stimulation to over-handling) and this often led to marasmic states and death before the age of three.

Secondary autism develops where waiting for the nurturing person becomes intolerable to the child. This over-reaction is made comfortable by the autistic process which produces a pseudo self-satisfaction. Clinical material (Tustin 1972) indicates that the beating of a child's heart may sustain him when the mother is absent. It is not known if this is because the nipple in the mouth is associated with the beating of the heart or whether the infant has an inborn awareness of the mother's heart and may think that if his own heart beats mother must be present. The heart beat is predictable whereas the mother's presence is not.

The defence against the panic of unbearable physical separateness causes secondary autism. The distinction between living and non-living objects is blotted out in an anxiety against the fright of losing the bridge between mother and child, or nipple and mouth, and avoiding any repetition of this painful experience by repressing feelings about the (tactile) loss of the mother.

Primary narcissism is the Freudian designation for the ego's original store or share of libido with the unconscious. When libido begins to be cathected onto objects and ideas about objects, the ego takes hold of part of this libido, trying to retain it, as a secondary narcissism. It is helpful that Anthony's classification relates autism to narcissism. For example, the pathological form of 'psychotic withdrawal' is related by Anthony both to normal states (e.g. 'normal lapses of attention and concentration' in secondary autism), as well as to abnormal states such as neurosis and organic brain disease. Anthony claims that each entity in his system can combine with another so that a case of childhood autism presents a continuous spectrum rather than a number of discrete disease entities. Although the distinction between primary and secondary autism has been accepted by Fordham (1976), Mahler (1969) and Tustin (1972), these workers all mention cases that do not fit in easily to either type of autistic disorder, primary or secondary.

In the 'idiopathic primary autism' of Kanner (1948) the differential diagnoses are between brain damage and mental defect. Kanner maintains that the less serious secondary autism is different from obsessional disorders although Bion (1955) and Meltzer (1975) see obsessional states as more like autism. Kanner's (1954) overall criteria for autism, however, retain the 'obsessive maintenance of sameness' as a major aspect of the syndrome.

Prognosis in autism is poorest when mutism exists. Children who never speak or who never do so beyond a few words are less likely to recover than those who have started to speak but regress in response to a traumatic event such as the birth of a sibling. Mutism as a symptom suggests that the core of the disorder stems from the very early life of the infant (Fordham 1976).

Autism tends to interfere with normal language development because processes of identification with speaking objects are stunted. Identification through the autistic child's narcissism encourages him to deal with the bodily features of objects rather than the mental function required in inter-relationship with objects. Meltzer (1975) claims that even where there is some speech these language events occur within the autistic state and are essentially meaningless (as in equivalent epileptic states). Gestures and signals are sufficient to control objects which, as they are dehumanized through poor identifications, is all the autistic child desires to do.

In general the inner mental activity of verbalization and its manifestation outwards, vocalization, is not so clearly conceptualized by science that clinicians can know how to frame it theoretically when severe disturbances occur. Clinical research is heavily based on an analytical approach to speech. The formulation of language in clinical settings tends to rest on the clinician's view of B. Russell's conception of meta-languages at varying levels of abstraction, on Wittgenstein's view of language as part of the natural history of human beings and Bion's conception that the

employment of projective identification is the primal mode for communicating states of mind. This is taken to be the content of L. Wittgenstein's 'deep' language (1945), N. Chomsky's 'deep grammar' (1966) and can refer to S.K. Langer's ideas on a musical basis of language (1942) which is interpreted to apply to 'deep' rather than 'surface' structure.

The child obviously requires a deep grammar for representing states of mind and to order thoughts in a way suitable for communication by some means, not just to evacuate thoughts easily or blindly. Presumably inner speech "must find an object in the outside world which has sufficient psychic reality and adequate differentiation from the self, to require the vocalization of this inner process in order for communication to take place" (Meltzer 1975). Desire for communication with others at this level must be sufficiently maintained or autism develops.

The influence of the mother on the infant is another important aspect in the literature on autism. Both Anthony (1958) and Mahler (1969) argue the mother is less significant in the primary group than in the secondary group and they would not find the mother's influence absolutely decisive in either. The designation of 'idiopathic' infantile autism is thus justified. On the other hand, Winnicott (1955, 1958, 1965b, 1971a) definitely considers that there has been an environmental defect which must include the mother's role and Bettelheim (1967) contends that autism occurs because the children so afflicted came

into the world only to confront mothers who wished for their death. Tustin (1972) sees the mother-infant interaction as the basis and fulcrum of the therapeutic repair necessary in the treatment of autism.

2. The genetic hypothesis of autism

For the development of the thesis of autism as a disorder of the self, we shall confine ourselves to a study of characteristic features of idiopathic autism, i.e. the full-blown clinical-pathological disease. There are two types of hypotheses postulating a 'barrier' between the child and the external world.

Anthony (1958) presupposes that an autistic child is born with a 'constitutional stimulus barrier' which may be insufficiently reliable or grossly defective through insufficient maternal care or which may be both strong and sensitive and yet becomes pathological as a defence against defective mothering.

The majority of workers e.g. Mahler (1969), Winnicott (1955), Bettelheim (1967), Tustin (1972), Rimland (1964), Bender (1953) do not presuppose a barrier from the beginning, though it may become established later on. Mahler, for example, believes autism arises from two stages of infant development that may not have been outgrown. Each stage is believed to lie at the root of two kinds of psychosis she distinguishes. In primary autistic psychosis the infant has no awareness of his self as distinct from the inanimate. 'Symbiotic psychosis' presupposes a separate mother and baby who fuse into a unity "which is characterized by

delusional, omnipotent symbiotic fusion with the need-satisfying object" (Mahler 1969). As an insecure boundary between mother and baby is assumed in symbiotic psychosis, a rigid and separate classification other than primary autism (where no self-object boundaries exist at all) may be difficult to sustain without resorting to a barrier concept where both types of illness can be included, the barrier postulated as variable.

How a barrier comes into existence has different explanations among workers in the field. Rimland (1965) speaks of organic failure of the arousal system in the centrencephalic system; Bender (1953) places the origin in some disorder of intrauterine life; Tustin (1972) argues the barrier develops out of very early psychotic depression; Bettelheim (1967) ascribes it to a death wish on the part of the mother and Winnicott (1965b) thinks it is wholly due to environmental failure. In the present state of knowledge, it would appear that any one of these explanations, alone or in combination could describe most aspects of the global integrative failure, with its arrests and regression, that autism contains, but that no sufficient explanation or proof of a barrier has been empirically put forward definitively by any of these experts.

3. Object relations in autism

The child's relation to the 'external' object is arguably the most elementary of all characteristics of autism in that mothers are quoted who detect the disorder as originating during breast feeding (Fordham 1976).

With an hypothesis of such an early origin, the core of the disorder is unlikely to be completely understood merely in terms of a child's retreat to an 'inner world'. The literature agrees that autistic children manipulate any object that engages them and that the child's interest must comply with what he wants to do with the object, be it a toy or a hand or arm of a person. Failing this, the autistic child will -- rage or panic, treat the object as without existence or cease to be interested. Fordham (1976), Kanner (1948) and Diatkine (1960) have separately argued against a lack of perception of objects on the part of the autistic child but they maintain that there is a close inspection of reality. Diatkine (1960) said of one child: "He lived in a perfectly perceived world, but one devoid of meaning as an abstract painting composed without inspiration". The child, because of the world's apparent meaninglessness to him, does not investigate what he perceives.

Another feature of autistic children is their passive compliance when adult intervention changes their activity. This curious detachment affects the child's own choices. When the autistic child "aims to use part of a person or object for his own purpose, should that object not fit in with his scheme of activities, he simply desists" (Fordham 1976).

These descriptions of autistic behaviour suggest that if autistic children live in an 'inner world' it may well not feel so to them; rather they live with an object world that may be precise and organized but not in terms of what is inner or outer. We have noted that a firm distinction

between what is internal and external requires a child to reach a stage where the ego is strong enough to distinguish between inner and outer after the state of fusion with the object has been lived through and superseded. If this hasn't happened, a barrier is set up, not against parents as external objects or to protect an inner object of the child, but against any not-self object.

There is, however, a type of autism where secondary fantasy systems may work as unreal world-systems. Symbolic representation occurs in these less ill children and they develop object-relation systems but observation of real objects is not precise and is exaggeratedly determined by affective processes. With such children the adult must enter the child's world-system so that the child's self can fuse with him and continue in maturational development. Meltzer (1975) points out that the obsessional quality of the autistic child can lead to total withdrawal of attention in an effort to manage massive depressive anxiety. Containment of the object is not possible and mental life disappears. Objects seem to be 'paper thin' lacking three dimensional quality. "Only isolated motor and sensory modalities remain, so that the child presents the pattern of a ruin which the therapist can handle like an archaeologist who confines his activities to observing bits and pieces which he can grow to recognize as isolated bits of a structure that is no more". However it must be said that the dismantling and re-operation of single sensory motor modalities and the surface nature of object relations may express an attempt of the self, even if

a distorted one, to arrive at a simple operational unit so as to begin development and correct the fault.

The obsessionality which characterizes autism arises from two factors in self/object relations; it depends on omnipotent control by the self over the objects and it relies on attacks by the self against the linking of objects to separate them so they may be better controlled. This attack on the linkage of sensory modalities seems to be an essential operation for the autistic state proper (Meltzer 1975). It is directed against the ego in a passive and non-sadistic mode. "The ego-function of attention is manipulated in a way that simply allows the experience of objects to fall into bits and to spring back together". There is, therefore, a spectrum of sadism. At one end of this spectrum would be the cruel pleasure with which objects are held in a state of suspended animation. At the other end of this spectrum would be the non-sadistic dismantling of the self which Fordham sees as an attempt to reconstruct a healthy self from one simple sensory modality upward. Interference with emotional responsiveness in the autistic seems to refer to a 'cerebral' oversimplification when obsessive thought obtrudes upon distorted object experience.

This may relate to Winnicott's 'transitional object' discussed in Chapter I, section 3, in that the dismantling mechanism so evident in autism is thought to be the basis (in normal development) of the formation of the transitional object. If external objects are not correctly or normally perceived, a strong narcissistic organization, a factor in autism, may develop an essentially perverse or fetishistic tendency and the transitional object then is focussed upon

to reinforce narcissistic isolation. If transitional objects are rigidly adhered to or substituted in lieu of human relationships this can be a first reliable sign of pathology (Mahler 1969). Winnicott (1953) describes the overall psychological claims of these arguments about autism as "the perceptual human task of keeping inner and outer realities separate yet inter-related".

Rodrigue (1955) sees the idealized first object - the breast - as an object stimulating defensive observation because any alteration of it would be terrifying. This is theoretically argued because the breast, as an idealized 'internal' object and possessing characteristics of omnipotence, is invulnerable to destructive drives ejected into the external world. Thus the infant erects autistic defences against a potentially "terrifying world". Preserving the 'good object' projection can reinforce defences. Rodrigue proposes that a 'bad object' is dealt with by negative hallucination. The 'bad object' is actively removed from relation to the ego by denial. This would suggest a triple process in the autistic system: 1) projection, 2) a negative hallucination to eliminate the projection, and 3) idealization of the 'internal' object. Freud (1924, 1938) originated this idea of eliminating projection and argued that the object is made non-existent by affective processes which prevent it from having any effect on the ego. Freud considers the ego's alienation from reality to be the pivotal disturbance in adult and adolescent psychoses. In infantile psychosis the fact is that the baby has to become acquainted

with reality gradually via the mother. The psychotic child has an inability to use his mother to arrive at a primitive or core-sense of her as a need-satisfying object. In this case a solid sense of external reality is never attained.

Rodrigue's theory suggests that the acute observation of reality should be interpreted as a continuous scrutiny of the object (the breast-mother) should defences fail at any point in the autistic child. He sees this as a primary feature of autism.

4. The self and autism

Fordham (1976) has attempted to bring together the ideas discussed above into one theory resting on his concept of deintegration. This neo-Jungian theory, drawing on Freudian and Kleinian studies already discussed, is based on the idea that a healthy baby is a psychosomatic unity or self and that the self will contribute by deintegration to the differentiation of all psychic structures in the course of growth. Deintegration differs from the release mechanism of the ethologists in being conceived of as a psychic process as well as a physiological process. Deintegrates derive from the primal self and they carry the attribute of wholeness and treat the 'external object' as a part of this wholeness. In breast feeding "if the child's mother does not match the infant's need closely, she, or any part of her not provided, is deemed by the infant not to exist" (Fordham 1976).

At first all structures developed by deintegration conform to the criteria of the self, i.e. self-objects. Before ego-development, the infant cannot distinguish 'not-self'. In autistic children, where no capacity for symbolization exists, the postulation of a basic catastrophe in the relation between baby and 'breast-mother' is useful. Bettelheim believes the baby despairs when the feeding experience provides no communication because the baby cannot participate in it and becomes defensive.

To create a barrier theory, defence systems would need to exist in the self to respond to impingement. Stein (1967) has postulated that the self has defence-systems which preserve identity and establish and maintain the difference between self and not-self. Stein points out that immunological research suggests a theory that immunological reaction is aimed at rejecting or annihilating not-self objects such as bacteria and alien tissues. Bio-chemical processes are only furthered in a healthy way by objects that can be assimilated to the self. (See Chapter IV for full discussion of this theory). A barrier in autism may be constructed if the baby has noxious stimuli in utero, during or after birth, which are pathogenic. A persistent reaction of the defence system would take place which through the baby's projective identification would become compounded to parts of the self. Not-self objects would hold great danger and would be felt to be the principal focus so that no inner world would develop, deintegration would not proceed normally and the primal-self integrate would persist against maturational pressures. This would lead to disintegration and the defence

system would build up to violence and hostility split-off from the natural libidinal communication with the object.

Empirical evidence of the mother's and baby's interactions is hard to obtain in the earliest period. Feeding schedules are useful for too great an ease in feeding may lead to the compliance symptoms of autism later on. Deintegration seems to have become split-off from the soma by the time breast feeding begins in idiopathic autism. The baby shows no effort to relate to the mother, no smiles, friendly looks or play during feeding. If this pathology of integration is formed, the organism will be damaged whether before or at birth, or the mother may damage the baby in such a way as may not be recognized by her through an unconscious wish for the baby's psychic or even physical death.

Whatever the degree of integrative pathology in various autistic children (and personal behaviour patterns are reported to vary enormously), it is postulated that none of their behaviour patterns are built into the "main body of the self" (Fordham 1976). This prevents a coherent ego-self relation which in turn prevents a continuing self-identity and self-esteem. A system develops which makes 'external' objects conform and be treated, along with parts of the body-image, as the primal self or else the autistic child may annihilate them altogether. Deintegration either does not operate at all or only partially. If in breast feeding the neurophysiological apparatus operates without its psychic counterpart integration is too rigid and negative.

Autism suggests that an infant cannot shut out or organize the continual flood of perceptual stimuli received into the self. The autistic child does not relate as a whole either to internal or external objects. This obstructs his growth. The component parts of the self in relation to the whole organism cannot develop.

Fordham (1976) states his resultant theory of idiopathic autism as a disorder of the self in infancy in this way: "It is assumed that the essential core of autism represents in distorted form the primary integrate of infancy, and that idiopathic autism is a disordered state of integration, owing its persistence to failure of the self to deintegrate". The autism theory strongly supports Fordham's general theory of deintegration within a theory of the self in early childhood. It is parsimonious in combining aspects of Freudian, Kleinian and Jungian concepts into an integrated self-theory which can explain what is now known about self and infantile autism. The fact that autism does so distort the development of the infant self provides evidence that there is a self that can be distorted and that the self is an essential concept in the theory of very early human life.

Chapter IV. Self and physiology

1. The infant self and physiology

The facts known regarding the physiology and maturation of the brain provide a basis for the claim that the infant has a considerable brain function at term and that the correlation of physical state with self/not-self is a justified study.

Cortical brain function (Herrick 1963) is arguably different in kind from subcortical brain function. Qualitative differences in morphological organization show up especially in reflex responses. "Reflex responses usually follow immediately upon presentation of their adequate stimuli and their central adjusting mechanisms are elaborated within the relatively direct lines of conduction employed (medulla oblongata, midbrain, thalamus, corpus straitum, etc.) ... cortical functions are in larger measure delayed reactions and individually acquired controls redirecting and recombining the innate reflex..." (Herrick 1963). "The introduction of large masses of higher correlation tissue concerned with delayed reactions within the innate reflex apparatus would tend to distort the reflex patterns and interfere with their prompt and efficient independent action when this is desirable" (Herrick 1926, reprinted 1963).

The neurophysiology of attention-mediating systems in mammals involves feedback networks between nuclei of the thalamic reticular system and the neocortex. Bronson (1965) contrasts the global-alerting capacity that takes place if

brain-stem activation of the neocortex occurs with the rapid and focal alerting mechanisms of the thalamic reticular system which allow for attention either to specific sensory modes or to particular input patterns within these modes. Bronson (1965) firmly believes that thalamic nuclei activate parietal, occipital and temporal areas just adjacent to primary sensory-reception areas. The control which the neocortex has over the thalamic reticular system would enable the neocortex to modulate its excitation level enabling selective attention to 'significant' aspects of immediate input to occur. This is believed to allow the infant a chance for 'exploratory behaviour' if other dominant motivational systems are not turning attention to 'needs-relevant' objects only.

The option to delay responses by an inhibitory process is important for learning from experience. If several immediate possible responses are not made there is additional time to consider the nature of the stimulus and select a response appropriate to the context of previous similar responses held in memory. Brain lesions that interfere with the option to delay responses usually impair recent memory functions (subfrontal, temporal, anterior limbic or hippocampal lesions).

A selected behavioural response could lead to a response involving a symbolic withdrawal from the stimulus, with or without a physical withdrawal from it. On the other hand, if responses are made without regard to internal state and the impingement of painful external stimuli, a sufficient condition exists for the development of a dual consciousness or 'unreal self'. The human cortex allows a very young child

to respond to environmental stimuli with a lower threshold than the normal response to visceral stimuli. Cortical function is sufficient to mediate responses with a relative disregard of visceral imperatives. Thus young children "have the sufficient neurological capacity to eat when they are not hungry, to "potty" when there is no need, to use a spoon at mealtimes when fingers are preferred, to "shush" when they would otherwise cry or scream ... ad infinitum" (Janov and Holden 1975).

When external stimuli are very intense the disregard of visceral imperative may occur to extreme degrees, e.g. primary anorexia, extreme obesity, drug abuse, alcoholism. These clinical illnesses suggest that human cortical ability to symbolize the relation to external stimuli may mediate responses with no observable relevance to the personal, visceral relevance. It should be pointed out that "the organization of the human cortex does not present a necessary organization for this dual consciousness only a sufficient one" (Janov and Holden 1975).

The study of body memory has led to the development of a new logic or dialectic regarding the adequacy of specific parts of the brain at a given time of early development and what portion of the body and brain might code early preverbal memory. An example would be the memory of a painful stimulus in a three-month-old child. The infant would not represent a painful reaction by an overcontraction of his lumbosacral muscles or facial frowning because the muscles of the face and body wall,

i.e. the sacrospinal, truncal and proximal limb muscles, are mediated by a portion of the brain not yet adequate in either afferent or efferent function to do so. One would look to the median zone where trauma could be represented: in stomach pain, oversecretion of hydrochloric acid, spasm of the colon, anemia or cardiac arrhythmia.

Myelination is the process whereby nerves obtain the white fatty covering named myelin which enables the nerves to conduct impulses more rapidly. Myelination of the brain, even in adults, is sparse in the median zone so the paucity of myelin in this zone in infancy cannot be a basis for rejecting functional adequacy of a newborn's brain. Neurological function is not all-or-nothing. It represents degrees of reactivity. The median zone is made up of multisynaptic nerves interconnected ablaterally like a three-dimensional spider's web. Median zone nerves are not connected serially or in parallel. Little is known about all that such a median system can do at three months. What is known is that with increasing age the mediation of the stimulus-response relationship increases functionally. The difficulty in precise statements about this is that, using our capacity to move the fingers as an example, simple finger movement is represented at spinal cord level, rerepresented in the medulla, pons, the relay systems in the mesencephalon and has extensive elaboration by the basal ganglia. At the level of the cortex, further modification, fragmentation and selective inhibition are known to occur.

The relationship between the development of myelination and the onset of functioning in nerve pathways is now documented with some accuracy (Yakovlev 1962). This is important because adequacy of the brain system in the visual and vestibular systems, correlates behaviourally in an almost one-to-one manner with the thickness and distance of myelination in a given pathway. Yakovlev (1962) shows that body and limb posture extension occurs at five to eight months when myelination of requisite vestibular pathways occurs and underlies the adequate relationship to gravity, helping to mediate the ability to roll over, sit up and finally to stand.

The brain has three concentric layers: an inner matrix zone which is never well myelinated but starts to become so first, a middle mantle zone which is next to myelinate and an outer marginal zone which myelinates last. "The progressive myelination of the neuraxis is the most readily observable morphological criterion of maturation... In the central nervous system, myelination until term is confined almost exclusively to the fibre systems of the mantle zone in the wall of the neuraxis... It spreads from within out, toward the marginal zone, but the fibre systems which develop in this outermost or cortical zone of the neuraxis, or are derived from this zone, do not begin to myelinate until the end of gestation is reached and the infant is about to face extrauterine life" (Yakovlev 1962).

In the normal infant, at term, the observed facts support the argument that the inner brain is mature enough to mediate visceral responses and that the central nervous system is myelinated in the mantle zone. For concepts of

a self/not-self awareness it would be important to find out if the mantle zone of the brain could contain a system of fibres which can register pain as protection of the self from anti-self. French et al (1953) argue for two pain systems in the brain: a lateral one and a medial or middle one in the reticular core of the neuraxis. The latter system is most susceptible to general ~~ana~~esthetics which suggests a dominant quality or capacity. Hilgard (1973) and Liebeskind et al (1973) agree that, in cats, the electrical stimulation of cells surrounding the middle of the midbrain abolishes pain reaction for the duration of the stimulus. This supports the idea that there may be a gate to pain from the periphery in the middle of the midbrain. Critchley et al (1972) and Janov and Holden (1975) also support this thesis.

From the work cited it can be argued that the brain of a newborn child is mature enough to register and transmit pain along the course of a medial reticular pain system and that depth psychology, in its concern with early experience, is supported by these findings. This is fundamental to the idea that the self is functionally whole enough at birth to be subject to attack (pain) from not-self, or that which is outside itself via environmental stimuli. The midline pain experiments also support the idea that the quality of early handling of the child by the mother or caretaker is important to pain relief. It also supports psychosomatic indications that adults when stressed will, if they have had pain-filled infancies, emit visceral dysfunction which reflects an obligatory learning of maladaptive visceromotor reactivity in relation to a painful infancy or birth.

The neurophysiology of attention supports the idea of a sensory gating function residing in the rostral pons and midbrain. Hernandez-Peon (1969) argues for a gating contribution not only from the neuraxis below this site but to all cerebral sensory analysis. This would include early body-memory. The principle upon which argument is based is that the midbrain reticular formation via reciprocal relationships with the neocortex and the limbic system is serving a 'strategic' function of directing attention to particular sensory inputs, rather than to all, and thereby diminishing attention to 'irrelevant', or less important sensory input. This is documented by Hernandez-Peon (1969) in electro-physiological data supporting selective enhancement/inhibition of neuronal activity as the basis for directed attention. Different biochemical neurotransmitter substances are claimed for general vigilance as opposed to focused attention. A midbrain gating function can be electrophysiologically demonstrated during REM sleep according to Hernandez-Peon.

If one views neurosis as a disorder which limits one's consciousness, gating operations to pain stimuli and selective impulse occlusion in the brainstem reticular formation provide pertinent support that traumatic early painful experience establishes patterns of neuronal interaction which may partially occlude awareness of the entire visceral and extra-personal environment. Where perception and response bear an obligatory relationship to earlier pain or trauma there is a limitation of options and an impoverishment of consciousness. All levels of the neuraxis may be affected:

at the level of visceral function it is a consciousness of feeling state; at the functional level of the body wall, outward expression of the internal state is postulated; beyond the body wall, relation to ideas, sensory environment and interpersonal relationship may be affected. These discrete levels of consciousness, if gated, would become 'unconscious' but not biologically so. Long lasting changes in the central nervous system would produce neurosis. Gate theory (Janov and Holden 1975) proposes that pain may be biased upward or downward within the levels of the neuraxis for long periods of time. The pain system is seen as dualistic with a lateral component mediating knowledge and a medial component mediating the suffering of pain. The locus of a third gate has been proposed by Holden as the orbitofrontal hypothalamic projection. This locus is based on evidence from studies of hypnotic analgesia and the co-consciousness in some temporal lobe epileptic patients that gating is occurring in the telencephalon as well as in the brainstem reticular formation and the spinal cord.

These gating systems represent three protective control systems which the self would experience both as facilitating and as warning devices and also as pain controls. The interfaces between the environment and gate one as well as between gate one and two are believed to exist in the dorsolateral grey of the spinal cord and brainstem, in the medial rostral mesencephalon and in the orbitofrontal cortex. The orbitofrontal-hypothalamic projection is seen as the highest third gate.

Although the work cited supports a thesis of a three-level gating system, more empirical proof must be found for certainty in this area of theory. Putting the gating system aside as a proposition needing further proof, there is sufficient empirical evidence of myelination and medial brain development to support the hypothesis of the existence of a self/not-self with or very soon after birth.

2. Self, immunology and psychosomatics

A self/not-self awareness may in the first place be concerned with or about defence. If one accepts Jung's archetypal theory and considers the archetypes as inter-related constituents of the self which would have a teleological aspect of serving the individual as a whole, then the self would have a defensive or protective role towards itself at a more basic level and definitely so in the infant in advance of full ego development. A weak ego would be overwhelmed both by powerful archetypal unconscious material and by the impinging outer world of objects.

To recognize not-self, the self would need to possess a great number of items of information referred to in biology as 'the message'. The message on present knowledge is encoded in the structure of genes made up of desoxyribonucleic acid (DNA) in a folded double spiral shape. The messengers that carry the message are believed to be a type of ribonucleic acid (RNA) in a chain shape determined by the pattern of DNA. Psychologists and biologists tend to agree that these messengers may be in the form of templates, enzymes, hormones, genes, catalysts or pheromones.

These diverse messengers are described in relevant theories by appropriate or acceptable terminology. "The psychological message concerns: 1) a diversity of specific responses to stimuli from what is not-self; 2) it must be all-pervasive so as to reach all defence outposts; 3) it enables the individual to recognize what is imposed not-self even if the self shares with the not-self certain features; 4)... it prohibits the wrecking of elements of the system as if they were extraneous" (Stein 1967).

In biology the defence system is a somatic system with four characteristics analogous to the four psychological aspects of messages described above (Burch and Burwell 1965): 1) the somatic defence system shows a wide range of specificity; 2) its agents are ubiquitous or pervasively present; 3) this system recognizes the not-self; 4) in pre-disposed persons, the agents can attack self-tissue in a 'misguided' way which is presumed to be at the root of auto-immune disease.

As neither the nervous nor the endocrine systems are able to fulfill all these functions, Burch and Burwell (1965) assume that the biological analogue of the self would be the lymphoid stem cells and/or the undifferentiated mesenchyme cells of the reticulo-endothelial system (Gell 1957). There is data that is consistent with such a postulation of some psychosomatic equivalence between stem cells and self without giving any intention of indicating that there is a lateral psychophysical parallelism between the self archetypes and endothelial system which is autonomous and free from total nerve control (as the self is also thought to be in terms of

its superordinate function). Neither hormonal nor nervous systems store or carry information that allows a secondary response, e.g. antibody production can go on months or even years after the first immunization. Stein (1967) points out that this reminds one of belated psychological reactions to trauma *in* early childhood. However even if deposited patterns in the nervous and endocrine systems are not thought to be paralleled by those borne by the self, this would not prevent functions like conscious acts or symbolization from being delegated to the former systems.

Anatomically the lymphatic system is described by Burch and Burwell (1965) as correctly qualified to serve as a defence against not-self. Random disordering due to the enormous complexity of the genetic message could be found in the stem cells. Medawar (1957) points out that evidence supports the theory that the antigenic substance which stimulates antibody formation is DNA from which chromosomes are made. If inoculated, DNA can bring about genetic transformation and behave as if it were a gene.

The idea of immunological mistakes is important to these general considerations. For example, in mammals the unborn offspring gets necessary nutriment by sharing the mother's blood circulation in the womb. But if cells from the embryo's blood pass the barrier of the placenta and enter the mother's bloodstream antibody function can be induced. If these re-enter the baby's blood haemolytic disease or damaged red blood corpuscles can result. Another example

would be chronic inflammation of the thyroid gland where autoimmune disease sets in, the condition where the organism erroneously or to its detriment destroys a needed constituent as if it were not needed. In thyroid inflammation as described by Burnett (1962) the gland has been invaded by lymphocytes which release antibodies and ultimately render the thyroid useless.

The distinction which enables the organism to recognize self and distinguish it from not-self may depend on the stereo-chemical fit of the "mirror image" with which the organism is confronted. Steric shape refers to the different positions in space which atoms occupy within molecules of the same chemical constitution. Differences of steric shape are characteristic of amino-acids on which life depends (Libby 1965). An identity of stereo-chemical fit could be schematically assumed when an object characterized by troughs and peaks is turned to its mirror image so that its troughs and peaks correspond. Complementarity would reverse the object and mirror image so that peaks face troughs and vice versa. This idea of two types of fit would account schematically for the maintenance of biological identity and when either the self archetype or the lymphocyte encounters a not-self pattern of either type of fit in mirror-image. In the identity-type fit, Fordham's deintegration theory involving quick reintegration of an object when there is a good fit would be the archetypal self theory in analogy; psychosomatically, the process whereby the original whole or self becomes structured into interrelated elements (or messengers) occupying certain postulated preferred stations (statistically) would be an identity-type fit.

Fordham describes the second or complementarity type of steric fit when the correspondence between object and deintegrate of self is not exact. At first the object will not be perceived at all but a tolerance develops so that the object later is perceived when not fitting the deintegrate (Fordham 1957). In view of the examples given in autoimmune disease with their disastrous consequences it must be said that in immunity theory the non-fitting object is an antigen or toxin. A toxin is toxic because its structure is in some sense a complementary fit to a genetically predetermined one.

Burnett (1962) assumes that the function of the antigen is to stimulate a pre-existent pattern into activity. In Fordham's theory of deintegration this is precisely what the object does to the self as a pre-existent structure at birth. Just as at first a foreign substance may be accepted by the organism, the repeated injection stimulates an antibody into action and when injected, antibodies provoke an immunological response. It is not surprising that the steric fit necessary for genetic stability can become pathological if changes develop from an identity to a complementary relation. This happens if an immature organism (the infant) is presented with a foreign substance as if it were a part of the self. When the self knows the object stands in a relation of complementarity to the archetypal image then the host will not tolerate the object.

An example of complementary opposites and their possible incompatibility is Parrish's (1966) work on sperms and ovum in infertile women. In four out of forty-eight infertile women, destructive antibodies specific to the plasma coating

of their husbands' sperm was produced. Biologically, complementarity can lead to a violent reaction.

An important example of this is reported by Turnbull and Hawk (1966) in the study of regional ileitis in the colon. Unlike chronic ulcerative colitis, the mucous membrane is not primarily involved in colonic ileitis. Rather the self appears to be destroying the colon as not-self via the lymphatic and reticuloendothelial systems. Acheson and Truelove (1961) found the disease often came to patients suffering from a conflict between the need for dependence and the family's ideal of independence and that a period of immaturity unduly shortens the time for digested (or introjected) not-self material to be accepted and psychoimmunological tolerance is not developed. Twice as many patients who had destructive diseases of the digestive tract were weaned from the breast during the first month of life as in the control group who had later weaning, in Acheson and Truelove's study.

Physiological, pathological and experimental findings in the field of immunity and autoimmunity have been presented as analogous to unconscious processes concerned with the recognition of self and not-self in Jungian theory and the related processes of self-defence and self-destruction described. Types of psychosomatic illnesses have been used as illustrations.

3. A defence of the analogical act

Analogy if presented in rigorous scientific and theoretical discussion is useful heuristically. In the New Oxford Dictionary, one definition describes analogy as

"the resemblance of form or function between organs which are essentially different". Where analogy is noticed, especially in medicine and biology it rarely is carried out by logical argument in the step by step fashion of the philosopher. Much of the philosophy of science comprises theoretical situations that rarely happen in the real life of the laboratory or the clinic and the term 'analogical act' is considered more germane to this paper. Analogical acts are an aid to discovery by suggesting clues and hypotheses. They concern resemblances between the relationship of things, rather than between the things themselves. The value of even erroneously described analogues can be profitable as it was with Malpighi: encountering insuperable difficulties in his anatomical studies of animals, he looked instead at their analogues, the plants, and founded the science of plant anatomy. In biology and medicine the examples of how analogies have helped new discoveries are legion. In neurophysiology these would include nervous transmission and electric current; the brain and the electronic calculating machine; the eye and the photographic plate; and the study of memory which employs many analogies in its understanding. The ancient Greeks (fifth century BC) who did not allow autopsies used analogy in their attempts to understand the movement of body fluids, conception, respiration, nutrition, congestion and the formation of bladder stones. Descartes was concerned with the analogy between mechanical and physiological action and analogy became the cornerstone of comparative anatomy.

As analogies have a long history in generating hypotheses to inspire ensuing further investigation and development, it is scientifically justifiable to include the carefully argued analogues between the self archetype and certain aspects of immunology. The analogical act never proves; it may however bring revolutionary advances if scientists detect certain analogies not seen by others and thus give a new basis for further development of a science.

nothing and sense impressions. ...
Hume writes however, "The ...
taken entirely ...
passions..." Hume was ...
experiences but if the ...
need the individual ...
must change as it is ...
development and intellectual ...
independent via its ...

The polarity between ...
of most self studies. Knowledge ...
acquired knowledge, may affect ...
As Ryle (1949) suggests it may be ...
observe oneself as one is at a given ...
reflect on oneself as another ...
about ourselves through posing ...
conjectures. This is an ...

Chapter V. Theory in psychology

1. Theory as imposition upon observation

The identity of self is a basic awareness of sameness across time and space. Through breaks in this self-awareness during sleep or when unconscious, we are made aware of self as a continuity in its personal distinctness from other selves and objects. Hume argued in his Treatise, (see 1896 edition), that we cannot have an idea of self as we know nothing but sense impression. In Book II of the Treatise Hume wrote, however, " 'Tis evident that ... we are at all times intimately conscious of ourselves, our sentiments and passions..." Hume saw self as just the sum total of experiences but if the self is linked to what is commonly named the individual differentiated personality, it itself must change as it is both partially dependent on physical development and intellectual development and partially independent via its inventive initiative.

The polarity between self and environment is the subject of most self studies. Knowledge, including culturally acquired knowledge, may affect interpretation of this polarity. As Ryle (1949) suggests it may be almost impossible to observe oneself as one is at a given instant, but one can reflect on oneself an instant later. We can develop theories about ourselves through posing problems and testing our conjectures. This is an ongoing learning process.

Fantz's experiments (1963) with babies at five days of age show they fixate on a schematic drawing of a face for longer periods than on a similar non-face pictorial arrangement. Dependence on caretakers makes persons very important within the objects of a baby's environment. Through other's interest in him and through body discovery the baby learns he is also a person. To be a self, expectancy over time of one's self extending to past and future involves a theory of expectation. However many ways of acting that being a self for the baby may include, social experience will add to the sum of self-awareness. What can be said to be individual about an organism that is an open system or group of systems with atoms joining and leaving the system very often? The material particles and energy are in constant exchange through metabolism with the environment. To the extent that this is self-controlling the organism is a centre of control. A baby is a developing organism as a body before it becomes a person in the sense of a consciously perceived unity of body and mind or psyche-soma. The baby's knowledge of his mother or principal caretaker leads on to his need to learn what is part of his body and what is not. In time the baby distinguishes between persons and things. This knowledge is needed prior to his discovery that he is a separate self.

Underlying this idea is a principle of social cognition: that any knowledge gained about the other also must be gained about the self. Bannister and Agnew (1977) in a chapter on the child's construction of self maintain; "The ways in which we elaborate our construing of self must be essentially those

ways in which we elaborate our construing of others, for we have not a concept of self but a bipolar construct of self-not self or self-others".

Lewis and Brooks-Gunn (1979) divide the first two years of development in the baby into four periods:

- 1) Birth to three months: Infants are particularly interested in other babies as social objects. Single action-outcome pairings are seen regularly enough to postulate these primary circular reactions to be differentiated.
- 2) Three months to eight months: Means and ends relationships are established. Mirror contingency becomes of interest to the baby within an action-outcome behavioural unit. The self-other distinction is not consolidated prior to the notion of permanence.
- 3) Eight to twelve months: The critical development is the permanent establishment of the permanence notion that enables the infant to have a self-other distinction. Plans, intentionality, self-recognition, independence from some contingencies all appear.
- 4) Twelve to twenty-four months: The representational behaviour-of-self begins and self-recognition is more dependent on feature analysis than on contingency in experimentation. (The child can recognize self in pictures as well as mirrors). A categorical self-knowledge begins with gender and age. In his language the child uses complex means-ends and symbolic representation occurs.

There are sentences we use once and never construct again. Understanding such a sentence is more than understanding the sequence of words at which one might initially fail. A unique experience is suggested, not a learned

response to a former stimulus, which may probably have a brain process that is also necessarily unique. Brown (1965) in describing processes involved with the child's acquisition of language syntax mentions the induction of latent structure as the most complex and finds this more reminiscent of the biological development of an embryo than of the acquisition of a conditioned response.

In general the self seems both to observe and to take action at the same time. "It (the self) is acting and suffering, recalling the past and planning and programming the future; expecting and disposing. It contains ... a vivid consciousness of being an acting self, a centre of action" (Popper and Eccles 1977). Adaptation to the external world may be inherited and learned. Both forms of knowledge can have complex informative capacity. Inherited knowledge, in the unconscious and found in the genes (the genome of the organism), provides the background from which to acquire new knowledge. The idea that sense data are the only entrance to the intellect ignores the selection of evolution: ten thousand million neurones live together in the cerebral cortex. Eccles (1964) estimates some of these neurones may have ten thousand synaptic links which suggests a huge potential including genetic read-out in the inherited background of the baby. Critical ability, in the sense of knowledge as the object of knowing or that "which is known or made known" (Oxford English Dictionary), leads to hypothesis and conjectural knowledge. Looking at an object causes an experience of sensation but one then queries the problem of what it is. Man is constantly required to infer

that other higher vertebrates have achieved conscious awareness in their decisions about interpersonal behaviour towards himself. Husserl (1948) argued that the one indubitable fact in human psychology is that of consciousness. Knowing demands a knower. Just as there is no consciousness without an object so is there also none without a subject. "All knowing is consciousness of knowing" (Sartre 1956). There are three knowings which is the normal extent of regressive comprehension; e.g. 'I knew that I knew that I knew!'

The first knowing is the phenomenological knowing of whatever the object is (realization). The second knowing follows in the knowing of the first knowing (memory via recovery and recall). The third knowing is a reflexive consciousness of consciousness or knowing that one knows the first knowing. Sartre (1956) argues: "Consciousness of self is not dual. If we wish to avoid an infinite regress, there must be an immediate, non-cognitive relation of the self to itself". In my view this is a fourth knowing or a consciousness in which knowing is not known or transformed to cognitive knowing. If behaviour does not become an object of another behaviour by the same actor, it is less than conscious or unconscious. Beloff (1964) points out that sense perception can be dependent on unconscious processes. In vision, "... all those reflex processes on which successful vision depends: lens accommodation, pupillary contraction, binocular convergence, eye movement etc., all take place at an unconscious level".

Medawar (1957) reminds us that problem solving may be unconscious as the immune system ideally solves the constant stream of its new problems unconsciously.

Instead of a hypothesis that our mind is a stream of experience and the self only a summation of these as a functionally unified system of responses (Skinner 1953), we would argue that our minds focus active attention incorporating a selection programme which is adjusted to the repertoire of behavioural responses available. Penfield's (1958) stimulation of the cortex in his patients enabled them to re-experience past experience while they fully retained awareness of their body localization as they lay on an operating table. The patients reported that they maintained a conscious awareness of self while the perceptual experience of the past was re-stimulated. The central nervous system steers the organism in an attempt both to relate to biologically relevant environmental aspects and to devolve some tasks to a hierarchically lower unconscious integration.

The individual organism, unique genetically and experientially, with a long evolution of the central nervous system contained within it, must, in a unified or self-conscious and self-reflective way, use its own germ plasm linked to its own brain and its own descriptive function of language. This is the uniqueness or self of individuals built up through the long evolution of human individuation.

Dispositions to recall to consciousness give continuity to the self via memory and dispositions to behave unconsciously contain inbuilt expectations (Jung's archetypal theory) as well as inborn reactions and responses such as

the newborn baby's expectation of being fed. Psychologically and genetically this knowledge is a priori, i.e. prior to all observational experience. Observation tends to be selective and presupposes similarity or its opposite. It also tends toward classification. This leads to an adoption of a frame of reference, to expectations and to formulations within theory. The idea that science proceeds from observation to theory, rather than testing theory against observation, is questioned because although it is true that a particular hypothesis is designed to explain some preceding observations, the need for explanation invents new hypotheses, and expecting to find regularities, imposes them onto experience. Theoretical framework needs constant reassessment. Conjecture and refutation, rather than the preservation of current dogma, can be traced back as a method to Hellenic tradition and to Thales. A principle that emerges in Popper's work (1959,1963,1966,1977) is that the criteria of demarcation for scientific theories are test-ability and falsifiability. The logical validity in repetition based upon similarity, or the inductive method has been successfully refuted by Hume; instances of which we have no experience cannot logically be claimed to have to resemble those of which we have had experience. This questions reliance on statistical probability as an all inclusive proof of any behavioural tendency. Habit does not originate in repetition: walking or speaking begin independently of repetition before it can take part.

Repetition is not perfect sameness for several interpreters; each is repetition-for-us if it is based on similarity-for-us. A giraffe might not experience a repetition as the sameness I do because each would have a certain point of view! If logically a point of view must precede the decision that a repetition has been made (such as a system of interests, assumptions, anticipations and expectations) then the point of view is not merely the result of repetition because it existed independently before the repetition. So induction or a passive waiting for repetitions to impose regularities on us is replaced by a theory of trial and error and the search for 'similarities-for-us' which means that scientific theories are inventions rather than a digest of observations, put forward for trial to learn if they oppose observations in a decisive way. This critical attitude enables the survival of the fittest theory at a given period in scientific history and, if an inadequate hypothesis is eliminated, the survival of science as such, as it can classify all theory as conjecture or tentative hypothesis. Empirical test and evidence can falsify by deductive inference, but not by inductive interference since no observation or experiment can give more than a finite number of repetitions. Statements of laws, e.g. B depends on A, always transcend possible empirical evidence. In general science accepts a theory as long as it stands up to the severest test that has yet been designed to refute it.

2. Behaviourism: a refutation

Can the theory of unconditioned and conditioned reflexes survive severe test?

Behaviourism, based on the reflex theory of behaviour and the association theory connected with it, has used the concept of the 'condition^d/reflex'. It is historically associated with Descartes, Locke, Hume, Loeb, Bechterev, Pavlov, Watson and initially Sherrington, although he repudiated the reflex theory in the preface to the second edition of his 'Integrative action of the nervous system' (Sherrington 1906).

Epistemological problems arose concerning the concept of the 'conditioned reflex'. Within the suppositions of mechanistic materialism which caused biologists to refrain from admitting concepts of consciousness or volition to science, Descartes (see Haldane and Ross translation, 1911) formulated the concept of 'reflex' in 1649. He thought animal nerves were comparable to statues that were plumbed for water. Sensory nerve stimuli were thought to give rise to inborn automatic involuntary reactions. This idea has persisted. Pavlov (1927) wrote that "...psychologists ...are studying at the present time these ... inevitable reactions of the organism ... due ... to the inherent organization of the nervous system". Neural connections between receptor and effector organs were seen in contrast to conscious action or volition. Reflexes are automatic and a consequence of stimulation of a sensory receptor initiating a nervous impulse transmitted along a specific neuroanatomical

pathway to an effector organ. This is the conceptual 'reflex arc'. The use of 'automatic' and 'involuntary' in this definition and the notion of a sensory trigger for a type of response implies the existence of a class of non-automatic actions. There are also actions, although fully automatic and involuntary, that are not due to the mechanisms of the reflex arc, or its specific naming would be superfluous. Efron (1966) gives examples: the "reticulocyte response to chronic anemia, the contraction of a muscle following a mechanical blow, and the movements of muscles during convulsive seizures" which are examples of automatic and involuntary actions not involving a reflex arc. Chemical action in the effector link of a response to afferent stimulation is illustrated by milk ejection in lactating animals. The stimulation of the nipple, giving an afferent neural release of pituitary hormone, is followed by an effector response of the hormone's chemical influence on the mammary gland.

Voluntary movement presupposes a concept of consciousness. Its purpose, initiation and regulation to insure its goal is consciously established. Walking would be an example. Stretch receptors, if stimulated, will activate the alpha motor neurones causing muscles to contract. These are initiated by mental action - the desire to move to a goal - so the automatic mechanism involved would not by themselves lead to a classification of walking as non-voluntary action. As there has never been a purely anatomical-physiological definition of a reflex mechanism, physiologists have instead asked if all involuntary actions are reflexes.

Sherrington (1951) thought the reflex innate and inherited but Pavlov argued for habits based on training, education and discipline as a chain of conditioned reflexes. By 1927, Pavlov used the concept of the reflex as encompassing every action of the organism that was mediated by the central nervous system. Sherrington held out for a definition which excluded any behaviour dependent on a faculty of consciousness. By 1931, Skinner declared the concept of reflex free of any differentiae and called it any "observed correlation of stimulus and response". Sherrington argued that a 'simple' reflex did not actually exist as any motor neurone in the anterior horn received too many connections from neurones elsewhere in the spinal cord to be considered as having only one input. All parts of the nervous system's concurrent input to the motor neurone would be present, not just the input from a particular afferent pathway.

If the pure reflex is not a physiologically definable mechanism nor a definably exact structure anatomically it can only be defined by reference to the concept of voluntarily initiated action. Skinner (1931) recognizes this problem by stating, "We have been proceeding ... upon an unnecessary assumption ... that there is a flexion reflex ... such an assumption is wholly gratuitous ... our knowledge of ... the arc is ... derived wholly from the observation of a correlation...".

In general the epistemological chaos surrounding the reflex concept was caused by the underlying premise of mechanistic materialism which claims that all phenomena will be reduced to physics and chemistry one day. A problem arises as all the laws of physics and chemistry are not yet known. Reductionists, if failing to 'reduce' all consciousness to physics and chemistry, point out the inadequate state of present knowledge but rarely include themselves in this condition when claiming that reductionism will succeed. Skinner maintains that any differentiae that isolate reflex activity from all other activity as responses are "negative" and "unscientific", e.g. the reflex as unlearned, unconscious, involuntary or restricted to special neural paths. If reflex means nothing but a response the term need not be retained if it is no longer synonymous with involuntary behaviour. The materialists seemed to hope that consciousness might be biologically irrelevant and that all behaviour is determined by physical forces beyond one's conscious control. If all behaviour is a chain of reflexes then the mechanistic thesis would be maintained. But the complexity of the central nervous system indicates that one cannot isolate a reflex arc, so the theory is not testable or refutable.

Acquired responses to stimuli, on Pavlov's view, needed "new reflex mechanisms" or "temporary connections" as innate motor and glandular responses to stimuli. But this does not explain acquired responses sufficiently. No anatomical or physiological evidence has been found to support the postulate of temporary connections. No histological or physiological

discoveries have brought forward any facts to prove any altered state between neurones as a consequence of previous experience. Eccles (1964) discounts known changes in synaptic efficiency, such as in tetanus or following prolonged disuse of monosynaptic transmission, by pointing out that "... the demonstrated changes in synaptic efficiency are that long periods of excess use or disuse are required in order to produce detectable synaptic change". Thus the concept of an acquired reflex or a conditioned reflex may be meaningless in normal health or organisms without synaptic trauma. None of the physiological responses described by Pavlov as 'conditioned reflexes' or responses (striate muscles or glands) are found in unconscious animals. This observation demonstrates that the concept of consciousness is needed to explain both the study of the reflex and the study of acquired behaviour. But Pavlov maintained he could scientifically "ignore the mental state of the animal" and this violates the logical assertion that the facts of consciousness cannot be ignored. Pavlov did in fact consider the mental state of his animals by 1) referring to 'alertness', 'irritability', 'somnolence'; 2) by choosing to work on conscious animals; 3) by showing that conditioned reflexes disappear during sleep, but unconditioned responses do not; 4) by choosing an experimental chamber without "distractions" for the animals. Pavlov apparently was unaware of this discrepancy between theory, description and methodology.

3. Physics and the psychological theory of self

Both materialism and depth psychology have tended to lean on the classical Newtonian conceptualization where persons and objects move through a Euclidean space maintaining substance as they do so. Historically observation may have been contaminated by such conventions. If the world is not as atomistic as supposed but more 'continuous', it will be of interest to psychologists to become aware of the emerging 'field theories' in physics where any absolute distinction between matter or void is increasingly questioned. Weyl (1949) in discussing electrons as waves rather than as substance maintains: "... a material particle is merely a small domain of the electrical field within which the field strength assumes enormously high values ... an energy knot, by no means clearly delineated against the remaining field, (which) propogates through empty space like a water wave across the surface of a lake; there is no such thing as one and the same substance of which the electrons consist at all times". In the metaphor of the 'wave' as 'moving across a lake' the wave is not independent but construed as a particular mode of behaviour of the entire lake. The swell of the whole volume of the lake would cause the surface phenomenon. This reminds one of the unconscious as being partly causative of conscious behaviour.

Learned tendencies to perceive in an atomistic fashion supported by the sharpening properties of the central nervous system in interpreting visual gradients have been reviewed (Marr 1976). Campbell and Robson (1968), for example,

suggest that the visual system's 'modus operandi' analyses contours and objects in continuous components (sine waves) by Fourier analysis. Perception of the environment is seen both to imply a nervous system and to be implied by a nervous system. Following Einstein, the most recent theories in physics indicate that all properties of any parts of matter reflect their interaction with other parts. Thus self theory, as the interaction of ego and environment as the 'waves of the water' plus the archetypes as 'under the water' in Jung's conceptual framework is one of the psychological theories most alligned to recent development in physics.

Field theory illustrates a possible analogy between emerging physical concepts and Jung's self theory. The field, (self) plus (environment), is held to contain perturbations (ego's reception of environment) which propagate through the field (see Fordham's deintegration theory in Chapter I, section 3 as the ego matches to archetypal form-tendencies of the unconscious) to gain 'conscious interpretation'. Structures in field theory are the interacting and interfering of the perturbations or the self's assimilation of the ego plus the environment plus the archetypes in my analogue. As the structure needs accounting for (the self theory of the person) not only the interaction as 'continuous' (the ego continuously analyzing environmental input), the analogy between physics and aspects of Jungian self theory is quite powerful. If a person 'adopts' stable patterns of process, he is taking 'properties of the field' that are relatively localized in space and time.

This is the self's psychological role. It is the contention of this writer that a structural theory of self, reappraised and combining elements of Jung's and Freud's conceptual theories, enables a parsimonious, wholistic psychological hypothesis of this 'field' or experience of self in consciousness. The self is the pilot of one's relative being (unique consciousness), in a localization of space and time, and within the continuous 'universal mind' or 'perceptual field'.

Before presenting my new theory of the self-ego I wish to point out the scientific problems in using depth psychology as its perspective. Behaviourism as a possible mode of presentation has been negated on logical grounds. However, specific experimental studies are vital to learning about the self provided they are not based on inductive reasoning only and are not so 'subatomic' in nature as to be too hierarchically removed from a wholistic view of the 'self-field'. Psychology's advance requires that a body of workers think in terms large enough to see a self-theory as a part of all the environment in continuous relation to one's own 'energy knot'. This is the psycho-physical sense of self-unity in individual mind-beingness.

4. Assessing falsifiability in depth psychology

Popper (1966) suggests that "clinical observations... are interpretations in the light of theories...criteria of refutation have to be laid down beforehand...but what kind of clinical responses would refute, to the satisfaction of the analyst, not merely a particular diagnosis but psycho-analysis itself?" This question is misleading.

Suppose a critic of psychoanalysis were to produce incontrovertible evidence that all psychological conclusions based on psychoanalytic theory were false. Would this refute psychoanalysis? Many hypotheses would have been refuted and need rewriting, but the vast amount of psychological data needing explanation would remain and the general hypothesis that the unconscious influences conscious behaviour and can be linked by a series of interconnected psychoanalytical postulates would not be falsified as an approach. Assumptions would be modified but aspects of methodology and the groundwork might survive. Psychoanalysis itself would not be refuted. Disciplines involving systematic research cannot be refuted: hypotheses can be refuted. Even if hypotheses are inadequate in psychoanalysis, the discoveries made about behaviour in special conditions would remain and need explanation. Revision of a discipline doesn't demolish the fresh observations it continues to make. Revision of psychoanalysis would itself be psychoanalysis. The questions it asks would remain.

Another problem in falsifying theories and scientific statements has come forward through experimental work in physics. The work with individual paths of photons has shown that a precisely identical series of experiments will give differing results. When solitary photons are shot consecutively at the same point of a half-silvered mirror, half of the photons will pass through and half will not pass through the mirror. But no detectable variations in experimental conditions can determine which individual photon will pass through and which will not. Like causes may not produce

like effects. Some scientists are therefore abandoning the principle of the uniformity of nature. Jeans (1942) sums up the combined theories of Heisenberg, de Broglie and Schrödinger in discussing Dirac's theory which states: "...that events in the phenomenal world are not uniquely associated with events in the substratum (sub-atomic physics, etc.); different events in the substratum may result in phenomena which are precisely similar, at least to our observation". This view of physics is described by M. Johnson (1948) as "pattern without demand to know of what thing we discover the structure".

Scientific criticism may be said to be moving away from the need for models in the mechanical sense, although retaining form or structure for expressing functional dependence and keeping measurement, abstraction and transformation as ways of description. Patterns are not falsifiable, but statements are. In Einstein's (1933) relativity theory, electric and magnetic forces are not real. They are, rather, mental constructs resulting from an effort to understand the motion of particles. Gravity is a similar concept in this respect. These concepts are revisable rather than refutable when terms like 'energy' or 'momentum' in the Newtonian theory of gravitation have been used. Einstein's mass-energy equation $E = MC^2$ is not falsifiable in the sense that a prediction from the equation could be falsified, e.g. 'Star J will appear to Observer E at space-time s-t'. If this imaginary prediction were falsified, the mass-energy equation is not false as it is still applicable to the general class of phenomena from which it

has been abstracted. When Newton's 'myth' is rewritten in terms of Einstein's relativity theory there is a temptation, as relativity theory claims to fit the 'facts', to suppose that relativity theory will never be revised enough so that its original form will be considered a 'myth'. Facts are not independent of the form of theoretical statement subsumed and statements based on observations are not independent of prevailing theory and chosen paradigm. Factual aspects of theory are its observation statements and specific lawlike hypotheses which at a given time are thought to be factual. Reports about the scope of a law and applications of a law to particular cases are falsifiable or at least revisable. When reports and applications are confirmed, however, the question remains whether the methods of representation and techniques from which inferences are drawn are sound. Toulmin (1953) suggests that abstract scientific statements of a law or principle and conclusions of inferences drawn in accordance with a law are not actually empirical statements and are not clearly falsifiable or refutable. Popper has put forward falsifiability as a necessary inbuilt requisite for scientific theory/hypothesis formation. I wish to discuss whether psychoanalytic hypotheses and those of Jung's analytical psychology are falsifiable.

2. Falsifiability in psychoanalysis

Jeans (1942) has pointed out that in physics every observation in quanta theory involves "the passage of a complete quantum from the observed object to the observing subject, and a complete quantum constitutes a not negligible

coupling between observer and the observed". The sharp division between observer and observed is thus questioned and the relation between subject-object rather than the object of the subject-object relationship is what is perceived. In psychoanalysis agreement between trained observers using tape-recorded sessions of an analysis - about interpretive effectiveness and the falsification of specific predictions - is an objective forward step within depth psychology concerning subject-object relation as a psychological interaction. It is the relationship of subject-object itself with which psychoanalysis deals. Prediction hypotheses about an analyst's interpretations and their effects can be verified or falsified by several observers. Lawlike hypotheses drawn from predictions are not conclusively falsifiable but may be fruitfully updated and made more heuristic by superseding earlier hypotheses. These hypotheses about the psychic development of individuals (or of groups) are stated in the form: 'X's, if assumed to be 'Y', are more intelligible to the patient', not in the form, 'all X's are Y'. Derivative assumptions, prevalent across psychology, need to be considered closely. Is it scientifically important for them to be falsifiable in Popper's sense? Seaborn Jones (1968) in analyzing this problem asserts that scientific judgment should deal with sound but untestable derivative assumptions because, "hypotheses and unformulated assumptions which are derived from, and not formally deducible from, theories and high-level hypotheses play a very important part in determining attitudes and expectations". Seaborn Jones has divided psychoanalytic hypotheses into a large number of classes.

Nine will be considered here. Seaborn Jones finds that retrospective hypotheses about interpretations are falsifiable as they can be confirmed or not by a number of observers. Predictive hypothesis, if specified so that "interpretations p,q,r...will be followed within 24 hours by changes a,b,c...in the analysand's behaviour", are conclusively falsifiable. There is a second group of hypotheses that while not conclusively falsifiable are directly or indirectly testable and are of theoretical and practical importance: these would be anomaly hypotheses (p is inconsistent with q) and observer agreement would at least be a starting point for their consideration; interpretive or focussing hypotheses, which are frequently confirmed and are modifiable (they are influential to the patient's behaviour); ahistorical hypotheses about the subject's unconscious fears are not directly falsifiable, but the analyst revises his hypothesis when interpretations based on ahistorical hypotheses fail and thus modifies such an hypothesis; psychodynamic laws, like any scientific laws are indirectly testable by testing predictions taken from them, e.g. "If...the hypothesis 'Obsessional symptoms are a defence against phobias' yields the prediction 'As the obsessional symptoms disappear during analysis the phobias will appear', the appearance or non-appearance of the phobias constitutes a test of both hypotheses: a direct test of the second, an indirect test of the first" (Seaborn Jones 1968); historical hypotheses such as 'he probably suffered from phobias m,n,o...in his second and third years' are more speculative than decisively testable; hypotheses

about communities as a unit of psychoanalytic behaviour are not conclusively falsifiable or testable but the pragmatic value from prima facia statistical or experimental confirmation could be considerable; finally, heuristic hypotheses within analytical techniques are not privately conclusively falsifiable as they are often based on the analyst's unspoken and therefore unprovable interpretations during analytic sessions. Carl Rogers (1967) has pioneered the making of private therapy public through recording and filming techniques. Obviously if the unspoken hypotheses of the analyst were written down by him during the session being filmed, this would be timed to the spoken word as it is taped, and would supply independent observers with predictive material that is falsifiable.

Ideas spread across science from hypotheses and often make inadequate the criterion that science should be reduced to a collection of hypotheses. Freud's idea concerning the unconscious need for punishment has updated views about delinquency and crime; ideas about connections between breast feeding, sphincter training and its conceptualization and the character and mythology of primitive tribes has affected approaches in anthropological, sociological and psychological investigation. Of course, to produce sweeping social hypotheses from these scientific ideas is unscientific.

There is the problem for all psychologists concerning their own freedom from the enactive element in choosing various modes of theory presentation. Where there are conscious and unconscious motives for distorting or dis-

trusting a theory, the psychologist's own psychology is being projected into the discussions. Demarcation applied to people as scientists may be heuristically as important for the formulation of scientific hypotheses as Popper's falsifiability criteria. Seaborn Jones defines this theory of demarcation as applied to people in this way; "A person is scientific to the extent that 1) he is prepared to modify, reformulate or abandon his beliefs, either in the light of new evidence or in the light of philosophical criticism; 2) he uses deductive methods to form his hypotheses; 3) his predictions are not enactive in such a way that they change the situation they describe or predict; and 4) he is free from motives for distortion". It would follow that to revise a theory using the above demarcation of persons, one necessarily needs a detailed knowledge of the purpose and the method of the theorist. As my self-theory is a revision and conjunction of elements in Jung's and Freud's formulations, using Fordham's extension of Jung's theory, their work and the work of the Freudian and Jungian schools (to the extent that these can be clearly defined) has been extensively reviewed and considered where relevant to our subject, the self in childhood.

b. Falsifiability in projective techniques within Jung's analytical psychology

Symbol and myth as it appears in dreams has been a tool of interpretation in all of depth psychology as has the use of projective techniques in analysis such as spontaneous painting, building sand pictures, active

imagination (a specific Jungian technique), clay modelling, etc.. Classically, projective techniques have been criticized for being on so broad a level that the material is not classifiable in any narrow sense. Many responses may arise from recent or past experiences at a superficial level as well as at deeper motivational levels connected to unconscious contents. Because analysts are trained to analyze on these various levels shifting quickly from and between levels, it is extremely difficult to quantify these procedures into standardized tests. The layman or the unanalyzed psychologist may think there is too much danger of the analyst projecting onto the projected material of the patient, the analyst's own projections! Attempts to make published projective tests valid have partially failed although the success of the individual therapist's use of projective techniques where patients often express great appreciation and benefit from the analysis of projective material is well known. Especially with children, but also with adults, difficulties with questionnaires and oral interviews are avoided and play-like projective techniques are in wide use. Where psychologists draw on depth constructs in designing their hypotheses and testing procedures or activities an enrichment from analysts' insights is widely reported. Fantasy, as a release of overt and covert levels, is widely accepted by Jungian and Freudian analysts but a sufficiently objective description of this work is still lacking in the field. The incremental validity, in that these tests add to other diagnostic techniques to round out a fuller clinical picture of a patient, is an important contribution from the use of

projective methods. Experienced givers of the Rorschach test, provided their theoretical orientation is acceptable (Freudians use this widely, but Rorschach was a Jungian), claim very effective interpretive and diagnostic results. As projective techniques each have their own language and orientation, judgment by the untrained observer leads to confusion and misunderstanding. The information yielded from covert levels is distinctively useful in the clinical setting provided a team of workers understand the language being used, the techniques themselves, whether the setting is more public psychiatry or more private analysis.

The hypotheses derived from Jungian projective techniques (e.g. D. Kalff's sand-play or Jung's use of 'active imagination') would lead to the same classes of hypotheses as discussed for the main body of psychoanalysis and analytical psychology. It is assumed that theoretical validity would have the same problems and stimulus value for scientific advance from Jung's work as would that set forth by Freud and his followers.

Kant's (1788) decision concerning synthetic a priori judgments, so often claimed to be a fallacy in the interpretation of projective techniques, is that synthetic a priori knowledge is possible because the mind always reads certain things into the world of appearances in constructing it. Kant held that a priori concepts were read into experience both by the mind as well as by intuition (which Jung defined as largely an unconscious function).

Where these genuinely belong to the construction, they are empirical and they force themselves on us through the forms of judgment in which our thought is expressed. Interpretation, or knowledge, is held to be a kind of synthesis: there is an active interpretation of sense-data received (such as that produced in projective techniques) and one finds new connections not always at first obvious such as the different representations of a single changing object.

Alternative theories in various projective interpretations might serve too, but if a method works and gives results it is heuristic to retain it where it is at least indirectly testable, observable (the advantage of creative painting, sand and clay techniques) and even falsifiable. In using 'world pictures' constructed in sand-trays, the patient is projecting and constructing an objective picture using objects from life in the sand topography such as people, buildings, vegetation, symbolic figures, animals, vehicles, water, landscape, etc. The patient is using the world of appearances and constructing his own best guess of the real world or of the world of his inner experience of the moment. There can be no certain test that his projection is accurate to his inner world but what right have we to suppose it is definitely not accurate? The only way we can, as selves, conceive of others' selves, is by drawing an analogy to our own self introspectively and by using empathy to the others' self. There is more to oneself than the appearance of one as object, or there would be nothing for one's self to appear to inwardly. One's consciousness must exist in

order to carry out this phenomenological construction: 'I am myself'. The possibility of such experience depends on the self knowing itself as an object of experience. If one were only an item in the phenomenal world there would be no subject for experiencing. But self as subject need not be enduring and independent substance; synthesis is what the self is continuously doing through reflective, adjusting, insightful learning. Psychodynamics develops from theory based on many classes of hypotheses. These may have testable or indirectly testable assumptions, many of which have predictive value. Both psychoanalysis and analytical psychology need a more formal scientific grounding both in theory and technique. The essential dimensions of depth psychology are its historical discovery and study of the theory of symbol. Other aspects are its study of intersubjective logic and the temporality of the subject, mythology, the psychology of religion and a specific and unique use of language in the 'interpretation of resistances and transferences or even to differentiate the effects proper to repression and the structure of the individual myth in obsessional neuroses' (Lacan 1966). The problem of intersubjective time has been further secured in depth psychology through the theory of games.

C. Falsifiability in series of theories

Experimental results giving counterinstances to a theory may not kill it. An auxiliary hypothesis or a suitable reinterpretation of its terms may save it. Falsification at any price can be modified by setting

standards to demarcate scientific from pseudo-scientific changes within theory. As the thorough appraisal of a theory must include an assessment of its auxiliary hypotheses, its initial conditions and its preceding theories to ascertain what change brought it about in the first place, a methodological falsificationism needs to consider series of theories. If problem shifts are theoretically progressive, they are scientific. If new empirical content is corroborated with a new theory, the emerging fact makes it empirically progressive. Thus a series of theories must produce new facts not just be in agreement with the observed facts. Lakatos (1970) believes this shifts the ground of what falsification is. In dealing with one theory, scientists have tended to lean on the results of experiments; if they confirm the theory it is acceptable and if they contradict the theory it is rejected. In the context of a series of theories falsification "depends on the emergence of better theories, on the invention of theories which anticipate new facts..." (Lakatos 1970). The relation of falsification is not just between theory and the empirical basis, but becomes a multiple relation between competing theories, the empirical basis and the empirical growth resulting from the competition between theories. Here the urgency is upon replacing any hypothesis by a better one. There is no falsification before the emergence of a better theory. "Refutation without an alternative shows nothing but the poverty of our imagination in providing a rescue hypothesis" (Lakatos 1970). A theory is acceptably scientific according to the argument, only if

it has corroborated excess empirical content over its rival and leads to the discovery of novel facts. This gives theory then explanatory power as it represents growth. It is empirical and takes the activist approach from Kant. Lakatos calls this approach that of the "sophisticated falsificationist" and it implies that learning about a theory is learning which new facts it anticipated. Leibnitz (1717) anticipated these theoretical concepts when he wrote to Conring: "It is the greatest commendation of an hypothesis (next to proven truth) if by its help predictions can be made even about phenomena or experiments not tried".

5. Cognitive experimental psychology, neo-Kantian humanism and the self theory

Experimental science is defined by bringing measurement into the reality perhaps more than by what quantity it approaches. W. Mischel, a cognitive psychologist, has retained a self-concept. In doing so he opposes B.F. Skinner (1975) who attributes control of behaviour to the individual's environmental and genetic history alone. Mischel (1973) thinks Skinner ignores the individual's capacity to process information selectively in terms of the person's own psychological state and his constructs. The continuous interaction between person and conditions is emphasized by Mischel. In the analysis of the covariations between behaviour and conditions, the problem of environmental contingencies arises for often this is partly determined by human beings in society. Environmental contingencies also cannot be divorced in their effects from the varying interpretations and psychological

transformations imposed by persons perceiving these contingencies. Reciprocity between self and complete social environment suggests a complexity where both the personal variables and the environmental variables are so very numerous that one wonders if in the name of clarity or parsimony it is possible to make heuristic hypotheses amidst this multiplicity of person-situation interactions. The manipulation of such variables suggests an oversimplification of actual human situations. Life is not lived under control for a third-person observer's data. The person as 'self' comes at life with the same ability to align premises just as the experimenter does (by his judgments of 'order' made on the evidence 'order', his statistical assumptions and his experimental design).

'Variable' as a term in science is used as a methodological construct. Theory defines variables to see if they hold up to testing. Person variables and situation variables suggests an impossible dichotomy as any situation demands that a self would additionally put meaning into the equation. If self-directed purpose comes into the events under experimental observation, can it be non-parsimonious to include it as a cause? Control and prediction of an 'independent' variable, or the experimenter's own teleological framework, suggests what theory is actually being supported in advance.

Classical mediation theory and self theory run into problems: both Tolman and the sign gestaltists as well as Woodworth's S-O-R (subject-organism-response) ideas are built on a theory that mediators (signs, rules, models) are input and 'past' responses rather than simultaneously 'present' responses of the self within the organism. This eliminates the effect of possible arbitrariness in behaviour. An exclusive demonstrative explanation for behavioural description results. No place is allowed for dialectical reasoning in early mediation theory. Miller, Galanter and Pribram (1960) in applying the concept of the feedback loop as a fundamental building block called by them the TOTE (test-operate-test-exit), imply a simultaneous comparison, using feedback, of what stage a plan or intention has come to. The operational stage of the organism's response to that comparison could be new, not only repeated responses of the organism.

Mischel (1973) however updates these traditional mediational views and claims his objective is a "theoretical framework that recognizes the constructive, generative nature of information processing, the active cognitive operations through which stimulus meanings may be transformed, the goal-directed, self-regulation and planning through which the individual may avoid 'stimulus control', and the anticipatory quality of human expectations". And again, "Each person is potentially his or her own best assessor, engaged in evaluation and interpretation of behaviour as well as its enactment".

Thus such a cognitive social learning theory seems more concerned with self-theory which has primarily been the province of humanists and Jung's analytical psychology until the last decades of cognitive experimental work. The tendency for psychologists to ask if antecedent factors 'caused' this self to form is beginning to be left behind. The newer view of self moves from a concept of 'change' to a concept of 'identity'. Phenomenological empiricism increasingly attests that the term 'self' should be a fixed or unchanging (theoretical) contribution (as dynamic structure) which the reasoning organism makes to the sequence of events within which it behaves. This self premise changes over time, but is giving a fixed contribution of 'self' to an isolated behavioural event (assuming one could be isolated 'exactly for now'). This implies a stable framework within a given event. G. Kelly's (1955) personal construct theory and T. Kuhn's (1963) paradigms suggest a 'self' operating either via self-regulated assumptions within statistics or the fixing of parameters in paradigms to lend a series of events 'order'. Where the self takes a premise, this beginning or fixed point is named by Rychlak (1976) as the "proto-point". Rychlak's definition of self is as a construct: "...a construct enabling the theorist to conceptualize the contribution made to behaviour by an organism which brings meaningful premises to bear from a protopoint. The term 'self' captures the impact of 'logical weight' of a precedent meaning (premise) conveying sequacious implications for the sake of which behaviour to follow is at least partially determined". This is an introspective

formulation. It does not deny a contribution from the unconscious as well as from the conscious and reflects that sense of orientation and identity in behaviour everywhere "for this unit of time". Premises can be several or changed as the organism 'comes at' any one life situation. The multiplicity of premises possible to the self at a given moment is an area psychology has yet to peruse and study. Unconfirmed premises do not 'go away' but, as Jung (1954) discussed, these 'shadow' or repressed premises come back through dreams and into complexes where self-definition is poorly functioning and not under the individual's fuller self-control. The psychological uncomfortableness of a multiplicity of premises gives both cognitive, phenomenological and depth psychologists much to think about.

Rychlak insists that until a child knows the meaning of 'left' he will not know the meaning of 'right'. This is a conceptualization around which perceived or phenomenal reality becomes a meaningful dimension for comprehension; e.g. long-short, unity-plurality, possibility-impossibility, etc. Meanings, if bipolar, give meaning to the 'other'. The idea waits on experience. "Kant was not saying that individuals were born with the meaning of words put into them by the environment but with innate 'formal causes' like bipolar comprehension around which meaning can become organized by the self. Affective assessment of dialectical judgments along bipolar spectrums are idiographic assessments" (Rychlak 1976).

Reinforcement, on this view, is not only from the environment or tissue needs of the body, but is also positive or negative through the affectively assessing human being contributing as he 'comes at life' with his self. These affective states depend on our unique judgments. The self as a continuing 'actor', constantly evaluating, is everywhere described in the literature of the world. This is the neo-Kantian concept of self as a pre^ecedently-sequaciously behaving organism. But we must not reify the self. In the self model proposed it is only claimed that a reappraised self-concept is sufficiently instructive and not inconsistent with general psychological experimental data (see Chapter VII) and that it is heuristically essential in analytical psychology (Chapter I), in the neo-Freudian work of Kohut (Chapter II), to the theory of autism (Chapter III), valuable to physiological analogues of the self (Chapter IV) and centrally important to neo-Kantian humanism, to Mischel's cognitive models and to several of the dynamic construct models (Chapter V).

Chapter VI. A new model of the self

In the intense object-seeking of the infant I propose *that* there are seven con-integrates which are like storage bins for growingly recognizable areas of psychological experience which the ego develops as it separates out partially from the self. The seven con-integrates introduced here are speech, the shadow, the ego-ideal, the aesthetic, play, the persona and defence-of-the-self. In section 3 of Chapter I, I have suggested that the con-integrates can be thought of as "huge, unifying, Gestalt-like complexes of de-integrates, conjoined to insure survival through effective performance and perception". It is argued that the con-integrates help clarify a "group of very large de-integrated aggregates which re-integrate in special systems of great biological significance".

1. The theory of con-integrates

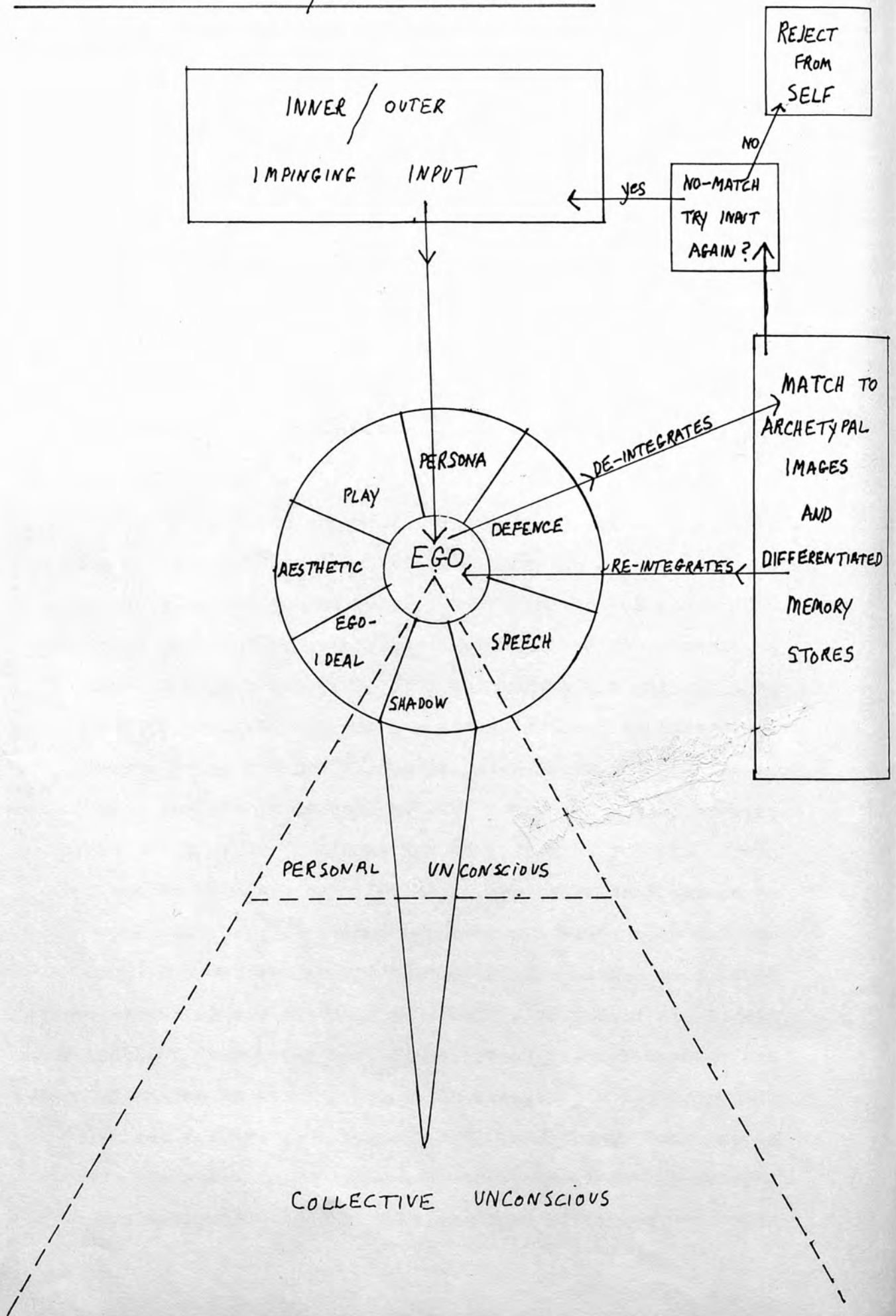
In this section a new contribution to the theory of the self in early childhood is proposed. I wish to underpin further Fordham's theory of the de-integrates which has stated that as the self de-integrates outward to the object the re-integration gives a tendency of unity as re-integrates are a derivative of a wholeness or an original self. This postulates a global theory without any hierarchical postulates or more testable lower levels to consider. In proposing seven con-integrates which develop very early during the first two or three years of the child's development, I am proposing to clarify further what happens when de-integration is re-integrated back after the first ego differentiation from self begins. It is my contention that the seven

con-integrates support not only overall psychic wholeness but specifically serve the most urgent developmental needs of the ego.

Why seven con-integrates? I believe the seven discussed below give the best illustration of what a con-integrate is, of what purpose or aim it serves and it restricts the number to be considered to the most essential for an introduction to the theory. There may be more and other theorists may wish to bring arguments forward for others, or extend the hierarchical levels of the theory further than I shall attempt.

The con-integrates are closely allied in dynamics and structure to ego development; there are seven a priori psychological areas seen very early in childhood which are designated as con-integrates. They are universally present in Western children and take precedence over lesser complexes as a linking and supporting part of ego-orientation. The boundaries of con-integrates are permeable to the ego as it re-integrates its de-integrates back for placement within psychological structure. The boundaries of the con-integrates are not permeable to one another. There is no reason to assume that over time brain cellular patterns cannot develop upon these a priori conglomerates provided they develop normally, but it is postulated that the con-integrates are basically a priori in type and within the structure and process I shall postulate for the self/ego. The shadow, the ego-ideal and aspects of speech involve structurally unconscious components. The other con-integrates are conscious. Where a con-integrate has unconscious structure they have permeable boundaries both to ego consciousness

3. DIAGRAM OF SELF/EGO CON-INTEGRATES



and to the personal unconscious; the shadow, technically, also reaches to the collective unconscious (see Diagram 3).

Multi-integrates are cognitive developments exclusively dependent on adaptation and reaction including physiological motility and are thought to be consciously built up. In the self-hierarchy multi-integrates stand underneath the con-integrate and are less ego-dependent and ego-related although all the integrates rely to some relative extent on the ego for their function.

Non-integrates are fragmented bits of cognitive material that the self stores in case a match to later input may require their use. If this seems unlikely, non-integrates are pushed out of the self entirely. Thus in this theory I believe there is some material processed through the self that is not retained in memory. Two kinds of memory stores are proposed, the first directly related to the acceptance of material by the ego as it de-integrates out to find a match either in archetypal images from the collective unconscious or in a highly differentiated memory store available to recall and to recognition. The second memory store is a non-differentiated storage of non-integrate material which may be available upon recognition of related bits or aspects of its material. This is not available to immediate recall, at least initially in the first months of life, but is more easily available to recognition.

The psychological areas put forward as con-integrates represent differing structural types in existing theory. They may be archetypes themselves, complexes or functions in existing Jungian theory. But in view of the self/ego

re-integrating back distinctive and definite de-integrates, it is maintained theoretically that it is unclear to allow no further differentiation than Fordham's theory does as to possible systems developing around the gradually differentiating ego and essential to its growth. Before proceeding further the ego-self relationship should be redefined.

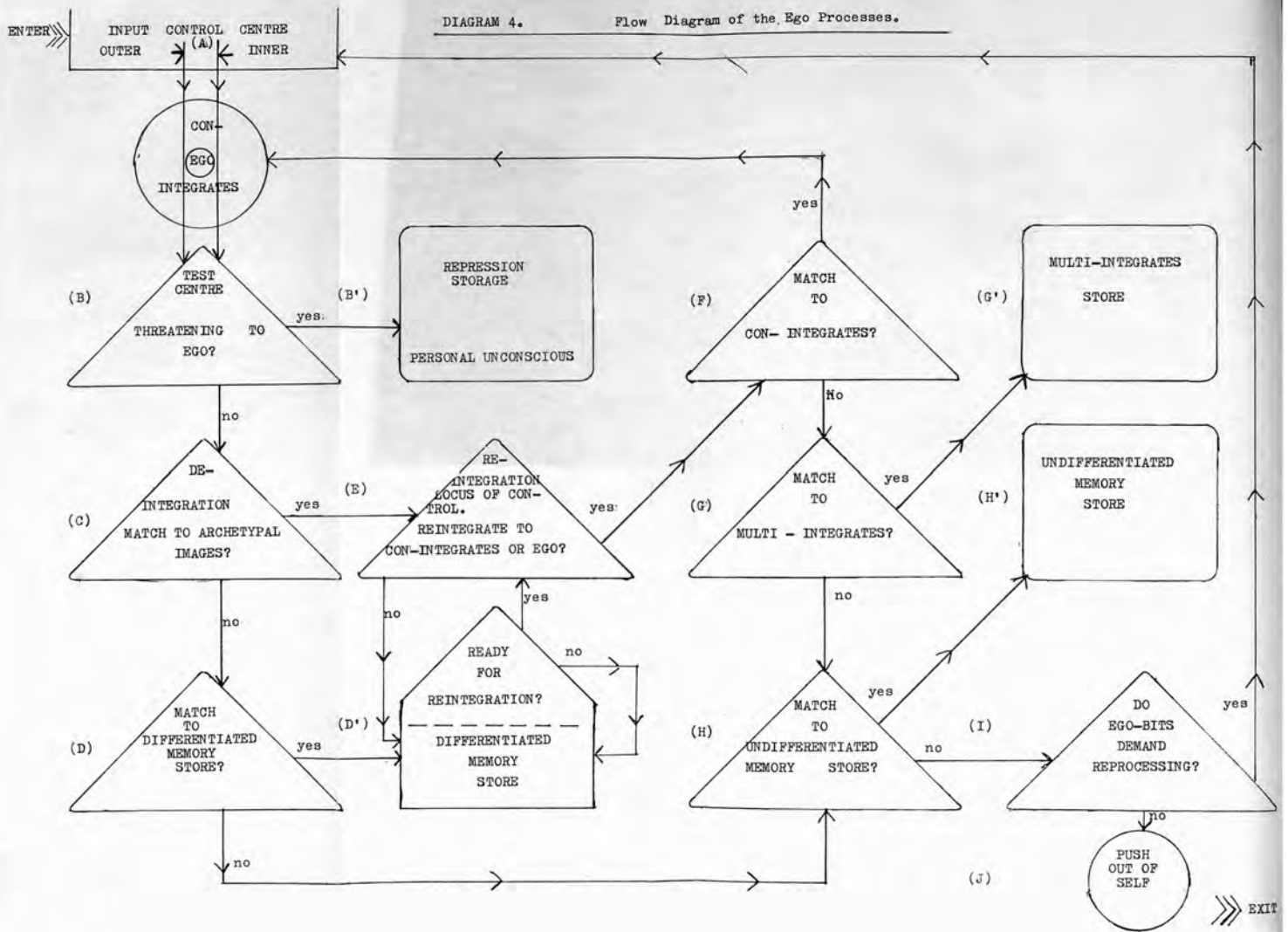
The term ego is being used here as the seat of consciousness. This concept is based on the theory of the ego's original state as being unconscious at birth or contained within the self as the original totality. Neumann (1954) symbolically describes the original psychic state before the birth of ego consciousness as the Uroborus or the circular image of the tail-eating serpent as a representation of the self or totality out of which the individual ego is born. During the first stages of life the separation of ego from self and their constant re-union shows an emerging ego which retains its primary identity with the self or self-system. The ego processes all incoming input as the free centre of the psyche which can differentiate, store or reject incoming perception either out of the self entirely or into the personal unconscious as repressed material.

The ego orders and focusses capacities of awareness as the presiding seat of consciousness. This process illustrated in a flow-diagram below is a process which enlarges its own structure as it develops. In elaborating the ego's surrounding structures into a new model, an attempt is made to clarify theoretically the process and its structure of the ego itself, as it separates out from the self. Because the ego can split or be destroyed, it must have a protective system around it, metaphorically like a

'cluster' of con-integrates which separate out and unite incoming stimuli received by the ego into at least seven categories. Where stimuli do not fit these con-integrates a lower hierarchical level of multi-integrates is proposed and discussed further below. Beyond these postulations one could propose that incoming stimuli not interpreted as con-integrates or multi-integrates would simply re-integrate to the less differentiated portion of the self named as a less differentiated store of non-integrates.

Operationally, the con-integrate has permeable boundaries to the ego but not to other con-integrates except via the ego. Where ego development is noticeably weak or undifferentiated in the child it is postulated that part of the problem is a too-slow development of con-integrates which defend, delineate and strengthen the ego and clarify areas of awareness necessary to performance and perception. Con-integrates are both adaptive and interpretive. They coagulate or bring together, via their permeable boundaries to the ego, the re-integrates of their specific 'area' which are fundamental to the early ego growth and its participation in infancy and childhood. It is proposed that with the exception of the play con-integrate which merges into a play-work content over time, the other con-integrates remain throughout life in their original focus and have in this regard the closest access to ego material and ego process.

DIAGRAM 4. Flow Diagram of the Ego Processes.



2. The flow-diagram of the self-ego system

In the following flow diagram a basic conceptual sketch of the con-integrate system within the self, including the multi-integrate and non-integrate levels, is attempted. The flow-diagram gives a binary and conjectural formulation of how input material may be processed through the archives of the self and its integrates' system of allocation (see Diagram 4).

The self/ego system has an Input Control Centre (A) in which initial registration of ectophysic and endophysic input occurs. As the ego's task is to focus the capacities of consciousness, the facts and data of the outer ectophysic environment are processed through the same system as the inner endophysic input from the matrix of inner psychic life, e.g. memories and recollections, affective emotions and the subjective components of conscious functions (thinking, feeling, sensation and intuition) and invasions from the unconscious. All incoming material passes the Threatening-to-Ego Test Centre (B) where contents which are threatening to the function of the self/ego system may be taken from processing into the personal unconscious for enforced storage in the Personal Unconscious Repression Storage (B').

a. Repression

Repression occurs to make contents inoperative which threaten the ego. The ego gives more strength to avoiding pain via repression than to accepting it. This rejection implies that ego development must be sufficiently conscious to resist that which is dangerous to itself and to keep it out of consciousness by relegating it to the personal unconscious.

"... (ego) is the mental agency which supervises all its own constituent process..." (Freud 1914). As the ego begins to de-integrate and re-integrate the conscious begins to emerge. "...repression is not a defence mechanism present from the very beginning ... it cannot occur until a sharp distinction has been established between what is conscious and what is unconscious" (Freud 1925). The ego, which is in direct contact with the external world during de-integration/re-integration, is adapted to the reception and exclusion of stimuli and is governed by considerations of self-preservation and safety. The ego must also defend itself against overwhelming demands of the internal input such as threatening instinctual contents of great power from the collective unconscious. The weak and immature ego of the child is particularly vulnerable to external dangers; parents ideally create a security for the child's ego but the child pays for this security by a fear of the loss of love from caretakers which would render him helpless to some of the dangers of the external world. Repression of these security fears often occurs and if ego development lags behind libidinal development generally, the precondition for neurosis occurs. The phylogenetic influences also act on the ego and if very intensified can become intolerably painful and repression is attempted. It is assumed that associative material to the repressed will also be repressed but the present state of knowledge is less than clear about this. Unpleasant mental content probably covers a wide field but repression itself is initiated by anxiety that arises from interference with conscience or other means of

preserving the parents' love, or interference with the maintenance of self-esteem. Internalization of the primitive threat from parents influences the repression sequence. Culture influences parents' opinions as to what behaviour in the child should be punished. Ideas or memories relating to motives that are punished would be what Freud considered unpleasant content that might be repressed.

Early experiments have been full of methodological defects (Sears 1942) but Kline (1972) argues there are some significant exceptions. Wilkinson and Carghill (1955) studied the recall of two stories from dream sequences, one neutral and one containing symbolic Oedipal material. Recall for the Oedipal story was significantly worse. Levinger and Clark (1961) took reaction times and galvanic skin responses to emotive words and to neutral words. Rotated factor analysis of all variables makes this experiment strong evidence for repression theory. The multivariate statistical check ruled out response competition as the determining factor of the results although its influence must be estimated, and failure to recall was shown to be related to the emotionality of words. Jung's Word-Association studies (1918) give impressive clinical evidence for the return of the repressed. Subjects when asked to repeat a list of word associations sometimes responded with difficulty, were reduced to silence, changed responses or were unable to associate again to certain words. Galvanic skin responses were higher for disturbed responses than for undisturbed response. These indicators of emotionality can be regarded as evidence for the return of the repressed.

Problems with testing repression lie with what the criteria for normal can be; an apparently neutral stimulus might be related, for some persons, to repressed material. Anxiety, as studied in experiments, has not been related to Freud's concept of the specific areas discussed above, which constitute unpleasant content for the ego in relation to repression thresholds. Virtually no repression experiments have been devised for very young children nor does it appear likely that the laboratory can concoct Oedipal or castration wishes or other profound anxieties.

b. De-integrates and archetypes

If the Input (A) is not sent to Repression (B') it moves to the De-integration Matches (C and D). De-integrates are like islands of consciousness in the sea of the self; they are archetypal predispositions for objects and experiences that activate bits of ego consciousness when they meet and link up. The de-integration process refers to cognitive and conative processes and applies to the entire development of infant, child and adult. Through the self-ego process system, de-integration and re-integration continually take place and the re-integrated parts of the self-ego become more realized "in terms of flesh and blood, space and time and also have more consciousness attached to them" (Lambert 1981). The ego ~~emerges~~ emerges, through the coming together of the initial pieces of ego consciousness, into a whole ego capacity. The ego can link the archetypal potentialities tested in the model by a match of the archetypal image (C) to a conscious reality and this forms the internal archetypal

self-objects spontaneously. "If we were to ask what the difference is between the original self-integrate and the re-integrated self, after an appropriate series of de-integrations, at the level of maturity suitable for the stage of life that has been reached, we could describe it in terms of content" (Lambert 1981). At birth, the infant's primary self-integrate is a conglomerate restricted to archetypal potentiality and nothing else. But at later developmental stages the ego-centre makes coherent archetypal images not yet fully experienced as well as archetypal internal objects fully identified by the ego.

Re-integration begins to occur if an archetypal match is made at (C) and the content moves to (E), the Re-integration Locus of Control for further processing. Where a direct archetypal match is not made, the Differentiated Memory Store (D) is searched in case associated differentiated material be stored there and indicate that integration to the ego-integrates is possible. If the content is less-than-ready for the integrates, it remains stored (D'); otherwise the differentiated material is sent for re-integration (E). If the content does not find any match at (D) at all, it is sent to the Match to Undifferentiated Memory Store (H) where it is matched to any fragmented ego-bits that may be contained in the Undifferentiated Memory Store (H'). If it does match the Undifferentiated Memory Store it is stored there. If not it is sent back through the whole system for rechecking if at (I) the identified ego-bits demand reprocessing. If no ego-bits are identified the content is pushed out of the self-ego system (J).

Before discussing the integrate-system (E,F,F',G,G',H,H') further, I wish to elucidate the difference between the two memory stores of the system, the differentiated (D') and undifferentiated (H') stores.

C. Memory stores

The critical difference between the differentiated memory store and the undifferentiated store is that the latter only stores non-integral ego-bits of information, not yet in a form suitable for recall but readily available to recognition where the original stimulus is present. In the absence of the original stimulus, recall involves an ego-orientated process in order to generate reconstruction within memory search and its verbal correlates. Recall develops much later in infants than recognition which Friedman (1972) tested at only a few days of age in babies. As quite substantial development is required for the ego's role in recall and the differentiated memory storage (available also to recognition, but recall from the non-integrate undifferentiated storage would be expected to be poor or even non-existent) it comes as a support for the self-ego model that recall is present only after one year of age (Piaget and Inhelder 1973). It is only then that the ego-orientated differentiated memory store could develop as a function and as a growing structure. Here I lean on Gottlieb's (1970) model for recall which assumes that there are "reciprocal effects in the relationship between structure and function whereby function can significantly modify the development of the structures that are involved in the events". Gottlieb admits structural development is probabilistic against a norm but argues it is unique to each child's

endogenous and exogenous stimulation. For fostering and channelling prenatal physio-anatomical growth, the stimulative events that determine the sequence and outcome of prenatal behaviour are: 1) presensory mechanical agitation, 2) interoceptive stimulation, 3) proprioceptive stimulation, 4) exteroceptive stimulation, 5) neurochemical stimulation and 6) musculoskeletal effects of use or exercise.

Gottlieb (1970) reports supporting experimental evidence from chick and duck embryo studies and from experiments on unborn kittens and guinea pigs. In chicks, movements are required from the embryo's own skeletal muscles to create articulated cavity formation and the sculpturing of cartilaginous surfaces. In duck embryos prenatal responses to strong flickering light enhances electrical responses at the retina, telencephalon and the optic lobe. Hormones injected prenatally can alter the sex direction of male chicks and guinea pigs. If structure were unidirectional, the structure would continue to determine function blindly and simply throw off these manipulative exogenous stimulations. Gottlieb's bidirectional structure-function hypothesis assumes reciprocal effects: that function can modify development of both peripheral and central structures.

Ego development is not an invariant course of development but is reactive to stimulatory developmental factors at all of its stages. This tallies with the integrate-theory in that recall would be available as ego-growth

permits a wider scope of differentiated storage to occur and be accessible. Both recognition and recall depend on acquisition and retention of information and both involve a match-decision process. Recall needs additional processing such as complex encoding skills, linking stimulus items, elaboration, generative representation, verbalizations, etc. These processes are facilitated in the self-ego model in that the check with the differentiated memory store comes first before integrate-matches and the secondary non-integrate store are reached. Of course, the process remains slower in recall than recognition because of its complexity and later partly because of the huge storage in the differentiated store.

Recognition failure of recallable words (Tulving and Thomson 1973) has been claimed: however superior recall was only found in testing recall in the presence of contextual clues, but recognition was not so tested. This experiment is really a test of recognition more than a test of recall as contextual clues contain the presence of partial stimulus. Tulving admits that his free- and forced-choice experimental designs bring problems underlying his procedure that are unknown. Light and Carter-Sobell (1970) argue that recognition tests should include a control of the semantic aspect; retrieval would need to be tagged the exact way a noun is used. 'Squash', for example, would be tagged in several ways; squash, the noun, as sport or as a drink and as the verb, 'to squash'.

In the self/ego model recognition would take perceptual input directly to each memory store; with recall it is assumed that self-generated representations requiring an

independent ego integration are matched with memory representation and that this is principally linked to the differentiated store under normal circumstances.

In psychopathology the undifferentiated store of non-ego material may flood verbalization as in the 'word-salad' of full-blown schizophrenia. The differentiated store where recall may evoke a full impression - in the absence of a model - that an object or event has been experienced or perceived at a prior moment in time, requires symbolic representation. Such internalized images are dependent on a healthy ego for the correct mnemonic process of recall involving figurative knowledge under a mnemonic referent. Obviously ego-damage seriously impairs the control of mental imagery and language, so here too a 'word-salad' may develop in psychopathology from the differentiated store.

The original healthy ego re-integrates a sufficiently whole image or clear mnemonic referent to differentiate integrate-memory back into language in the process of recall. I would argue that it is the role of the ego and its memory storage as an integrate (differentiated store) or a non-integrate (undifferentiated store) that is the initial criterion for the structure and function of storage.

Perlmutter and Lange (1978) report that two-year-olds are sometimes better than adults in recognizing old items presented again. Recognition involves, on the self/ego model, the quick scan of both memory stores. In the two-year-olds' life the differentiated store is still rather empty which could explain their speed in recognition scan.

Later the differentiated store is very full but improvement in encoding strategy via rehearsal would enable test results almost to equal out up to middle age. Recognition rarely improves much with age; that points significantly to the early availability in the first year of non-integrate memory - bits which the self/ego system scans as strategy and practice during the gradual tuning-in of the ego-integrate differentiated storage which becomes active at about one year. This postulation of memory stores within the self/ego model can assimilate the theoretical dual-process information models (see Kintsch 1970, Klatzky 1975) and Piaget's intelligence-dependent developmental memory model.

d. Re-integration and the integrates

If contact reaches the re-integration (E) centre it is first matched to the con-integrate prototypes (discussed at length in the next section). The seven con-integrates are closest to ego-identity and process and they have first choice of assimilating the material which the self-ego de-integrate accepts into re-integration. The con-integrates build up residues and implications from ego-direction as it balances, directs and processes the inner and outer impingement which re-integrates into the con-integrates' nature of function. All con-integrates are intrinsic to the infant's need to interpret experience and they incorporate the infant's most ego-related needs.

Ego re-integrates that do not belong to the con-integrates move to the Multi-Integrate Match (G). These are conscious bits of self which fall outside the con-integrates but which the self-ego can use progressively and developmentally. They cohere in the principal sensory, perceptual

and motility systems. Multi-integrates might be the cognitively and conatively developed areas when very complex, like the learning of a second language and other skills requiring combinations of integrates secondary to the con-integrates and beneath them hierarchically among the integrates. It is outside the task of theory at the level of the con-integrates to comment further on multi-integrates. They deserve separate empirical study.

Where no multi-integrate match is made, content is matched to the Undifferentiated Memory Store (H). It remains there should it contain sufficient ego-bits for retention. If not it is checked at (I) for a repeat processing through the self/ego system if any ego-bits are identified in the content at this last check point; if not sent back for reprocessing, the content is pushed out of the self/ego system altogether (J).

The binary-process scheme is an efficient descriptive method for imaging these processes and was introduced to clarify my model of the self-ego and its integrate system. The entire system is dependent on the ego as a growing locus of control within and relative to a self that integrates its a priori archetypal configurations against the endophytic and ectophytic realities of the infant's psychic life. This model has the advantage of being suitable for all developmental stages in the life of the self-ego and its emerging consciousness through its match-storage system. It has parsimony in its model-construction of great economy

and I could not discover a simpler conceptual framework that will integrate the extraordinarily complex data, i.e. everything a person can relate to and integrate into himself at any stage of life.

3. Description of the con-integrates

The seven con-integrates will be defined and described with reference to the self-ego relationship that begins in infancy.

2. Speech

With the influx of tape recording and video taping, the analysis of linguistics and acoustics has assumed vast proportions. Details of the infant's approach to speech has never before been so fully documented. Much of this work is reported for its own sake; some of it is related to theory. The overall quality of experimental work in the last two decades emphasizes the sense of utterances as more important than their form to the infant child. Work has often centred on distinguishing speech sounds in terms of phones, phonemes, distinctive features, phonological rules and intonation. These are the elements usually classified in the scores of recent publications on language development in children.

Some of the valuable discoveries in this literature relate to the development of speech perception in the very young baby. In work by Eimas et al (1971) one month-olds were discovered to have categorical perception of phonemes. This is well before the child begins to approximate speech sounds in babbling usually placed at three to four months.

By ten to fifteen months some words are intelligible and after age two there is more evidence reported by the de Villiers (1978) that the correct reproduction of distinctive features on their own as a learning device becomes important to children at this time. Studies of deletion and substitution which are based on later babbling suggest that in its last stages babbling is already partially governed by restrictions similar to those of the phonological development in early words. Between two and four the child learns a rather limited scope of grammatical rules using agent, possessive and locative. Simple two- or three-term propositions are first mastered and then shades of meaning, signalled by grammatical morphemes, are added in a relatively stable order.

The relationship between a child's world-knowledge, intentions to communicate and early word-strings is a difficult study. The boundary line between the sense in which the child may have an idiosyncratic linguistic category in his head and its similarity/dis-similarity to the generally accepted system of the category is difficult to judge or delineate. Experts argue over early semantics in child language. Bloom (1973) believes the child's correct use of words like 'this', 'more' and 'allgone' means children understand the semantic relations involved (nomination or existence, recurrence and nonexistence). On the other hand, Braine (1976) believes the semantic status of such terms is narrower in child's grammar than in adults. He points to the groping patterns of early speech and suggests

children express a meaning before they learn word position in linguistic strings. Both Nelson (1976) and Rosch (1973) point out that the exemplars of nouns such as 'cat' or 'chair' may share some physical features but a search for common features among all proper exemplars fails and leads to null sets. This suggests that the child searches for semantic meanings, not physical elements of syntax, and that core meanings, feeling, function and experience combine into prototypically organized experiences in which core meaning is lodged. Further experience then elaborates this.

Language enables the child to demand, to question, to blame and to deny. The de Villiers (1978) believe the child comprehends more information than he can express in language at first, and that he uses conceptions of events that are based on stored information as to what is likely in a situation and what is expected of him.

Condon and Sander (1974) report the results of a decade of films of neonate and caretaker taken during the first hours of life. Their interest is the connection between linguistics and kinesic body movement. Condon hypothesizes that the neonate moves synchronously with adult speech as early as the second day of life. Body motility is seen as partly growing out of sound patterns around the child as well as its well documented relation to touch. Film was analysed in 1/6th of a second 'units' and a self-synchronous rhythm-hierarchy in babies' motility characteristic of human speech behaviour was discovered. The unit is a segment in which several body parts will sustain whatever direction or speed in which they are moving for brief duration.

This reveals a behavioural 'mode' that contrasts with previous and following 'bundles' of speech-movement. This may be characteristic of all nervous systems. A listener moves synchronously with a speaker in an 'entrainment'. In videotaping infants from twelve hours to two weeks of age, the stimuli used were an adult speaker and audio tapes of English, Chinese, vowel sounds and tapping sounds. Precise synchrony of infant movement with the articulatory structure of adult speech was discovered.

The infant, by moving into the organization of his cultural speech structure, gains a huge number of repetitions of linguistic forms before he uses them in speech. The neonate participates immediately in communication from the first day of life through entrainment of body movement to environmental speech patterns. This behavioural evidence suggests that entrainment to speech may be innate and that a con-integrate is developing within the self/ego from the first or second day of life. It could only become delineated with the ego's own development.

The use of continuity in early child language suggests the early participation of the ego. 'She came it over there' was a sample from a child's use of 'come' while watching a dog take a piece of food into the next room (Bowerman 1974). This child had always used 'come' with the meaning 'move'. She thought it could also mean 'cause to move' by hypothesizing that it might operate as 'walk' in 'the dog walked' and 'the man walked the dog'. Children tend to build on what they already know. Early objects are usually named only after they are noticed, picked up and studied.

This choice of objects suggests the ego is involved in naming objects and that language has the formation of a con-integrate in close relation to ego-object delineation from the first weeks of life.

E. Clark (1978) has traced the use of continuity and hypotheses in the development of deictic terms which in person-deixis involves 'I', 'we', 'you' or 'they'. Deixis relates to objects with locative or demonstratives like 'here' or 'that'. The study of deixis also includes place, movement and cause. Gestures start off and are built into directives in language by children in a series of developmental stages. The learning of 'here' or 'there' is dependent on the ego's separation from the outer object or speaker in order to comprehend where the point of view originates. This is essential within deictic language.

Personal interaction and the shyness of a child dynamically effect the way linguistic ability develops. Language is closely related in its idiosyncratic development to the complexity of ego-needs and the way these are met in the child linguistically. The speech con-integrate develops in the early weeks of life and continues as a principal mode of expression throughout life. The speech con-integrate is postulated as indispensable, important to ego-object separation and as taking to itself all the linguistic signals for cognitive development that it can. The large area of the left hemisphere usually used for much of speech development shows its great biological significance. For the self to utilize its complete sphere of ego-consciousness, speech becomes enormously important to the self-expression of ideas as information and as theory.

b. Ego-Shadow

C.G. Jung designated the shadow generally as a principal archetype in the collective unconscious and also as the repressed material in the personal unconscious. To avoid confusion, my term Ego-Shadow relates not to all repressed material but to repression intimately connected to the ego itself and particularly to the birth of the ego. On the flow-diagram model above, this material would be automatically repressed by the Threatening-to-Ego repression centre and then that material most closely related to the stage which ego-development had reached would be filtered into the Ego-Shadow con-integrate for unconscious storage of ego material. This process which is unconscious is not shown in the model diagram itself. I insinuate it here. The ego would control release of Ego-Shadow material in projection as it becomes tolerable to the ego from its conscious standpoint.

I put the Ego-shadow into self theory as a con-integrate because repression is present in the baby as he de-integrates out from the ego to incoming phenomena, tries a match to the archetypal level to achieve re-integration into the self and may quite early on begin to project the repressed material of the personal unconscious which is specifically relegated to the Ego-Shadow con-integrate onto his growing conscious ability to tolerate a mismatch between ego/self and de-integrates. This toleration prevents disintegration and I believe all babies would experience disintegration without a repression system for ego protection. For example, we can consider that at the moment the mother stops a breast feed,

the infant may cry in rage having no cognition that he will get another feed later. Eventually he may be able to repress the anxious feeling as the nipple is withdrawn, or as he spits it out, and this repression into the Ego-Shadow con-integrate may enable him to tolerate the wait between feeds prior to a cognition that he is in a secure feeding schedule. In this way the Ego-Shadow would be serving the need of ego-development and preventing disintegration from the first days of life. Repression can initially serve a positive role to increase the child's toleration of delay in meeting immediate ego-needs and to help delineate the curious or de-integrating 'I' from a fearful and anxiously repressed nature. The shadow as an overall term contains all the non-conscious aspects of personality over time from both collective and personal levels of the unconscious and can only be measured in its projections. When a child begins to play, he can project good and bad repressions onto toys or the play situation enabling child therapists to catch glimpses of unconscious material.

Where there is a birth trauma through late or difficult delivery, oxygen problems or surgery directly after parturition, the shadow itself as a whole and the Ego-Shadow as a prefiguration in the con-integrate system can protect the birth of the ego out of the self by repressing and containing birth traumata so that something like normal ego development can begin. There may be a birth-archetype which would coordinate other elements of the fight-for-life outside the womb in the baby. Birth traumata bear a relationship to psychic life whether they remain unconscious or are later raised to consciousness.

The ego separates out gradually from the self until the child no longer refrains from saying 'I', drawing 'me' or acting out 'myself' in play. However difficult a problem the general shadow may be in the personality of adult life, the Ego-Shadow as a con-integrate is indispensibly helpful to the initial survival of the ego-complex in infancy as it begins to separate out from its initial fusion with the self. As the child's ego gains in stability and range the Ego-Shadow con-integrate functions when inhibitions and repressions, especially close to the ego, occur.

C. The Ego-Ideal

The Ego-Ideal con-integrate is conceptually based on Freud's super-ego but it is argued, takes effect earlier in the child's life than Freud postulated. Freud believed the super-ego to be the residues of the earliest object choices of the unconscious and not formed until the resolution of the Oedipus Complex in the child. It was derived from a transformation of the child's earliest object-cathexis by identification with the object and introjection with it. Freud did not realize that it could be formed before the resolution of the Oedipal Complex because he conceived of the super-ego as partly a reaction formation against the Oedipal Complex. But an earlier formation of ego-ideals in infancy is in no way dependent on a reaction formation to Oedipal or Elektra Complexes. The existence of narcissism in infants before the ego is differentiated enough to risk non-narcissism suggests an early identification with the lengthy childhood helplessness and dependence of self/ego upon parents or

caretaker and the beginning of a permanent expression to the influence of the parents. The Ego-Ideal even if it does begin with the mother and her nutritive role normally includes the father at a very early stage. There is no reason to assume that the feminine and masculine side of environmental influence on the infant does not begin almost at once in the infant from the atmosphere of the caring situation forward. This is particularly true now that fathers are tending to take a more active role with babies from their birth (Parke 1979).

The Ego-Ideal gives a "...permanent expression of the influence of the parents..." (Freud 1927). In the young child this spreads to include the influence of siblings and older relatives and friends of the household. Whatever personal evocation of the parents archetypal development enables a child to have, much happens psychologically as this influence moves into the development of external personality traits. "We know that the loss of the mother (without adequate substitute) during the first year of the child's life can lead to death, severe deterioration and psychotic disturbances, whereas if the loss occurs after a normal primary relationship in the earliest developmental period the chances of the child's healthy development are much more promising even if he becomes ill" (Neumann 1959).

Jung maintained that the real mother evokes the mother archetype in the psychic structure of the child and that this can function independently of the mother's reality as a compensating psychic reality. The same would be true for the instigation of a father archetype. Both archetypes would make secure the ego-self relationship achieved in a successful

primary relationship (usually to the mother, but possibly to a maternal father). If the primary relationship is the basis for security, nourishment and containment in the long dependency of the baby on its caretaker, then the Ego-Ideal has ample time to develop as a con-integrate. It would influence the regulation of development within the child's psyche, between him and other individuals and later between him and society. In childhood, the overall intrapsychic development can be described as an initial "... interdependence of ego and self, conflict between ego and self, growth of ego and consciousness out of the unconscious and conflict between ego consciousness and the unconscious as a result of increasing independence" (Neumann 1959).

At every stage the Ego-Ideal must be developing in its hierarchical, conservative and authoritative influence on the ego. Freud was very defensive in his arguments about the Oedipal situation and the super-ego and he overlooked the realization that ego-ideals were developing much earlier and that this influences the child's ego in the first year of life.

It is proposed that the con-integrate of the Ego-Ideal begins its long development early in the infant's development through the discipline and learned strictures of behaviour from the parents or caretakers and continues to operate, with modification, throughout life.

d. The Aesthetic

The aesthetic appreciation of the beautiful has been documented by C.W. Valentine in 'The Experimental Psychology of Beauty' (1962). The bulk of the statistical summaries referred to children over the age of four and is just outside the age-range considered here, although the individual case material involving Valentine's children is very helpful. It is a part of common experience to hear children of two, three and four years of age show a recurrent use of the word 'pretty' when referring to flowers and pictures. This showed up in Valentine's child "Y" who took Binet's Faces Test (see Burt 1921) and always showed preference for 'pretty' faces. Burt found when using the Binet test that 33% of three-year-olds chose the 'pretty' face in each of three pair-choices presented, 67% of four-year-olds did so and 91% of the five-year-olds. The criteria for 'prettiness' would be widely debated today. Was Binet simply measuring 'average' types of faces against 'non-average' which the children responded to as 'like' or 'unlike' their normal daily environment? Was Binet measuring evenness of photogenic facial features as against unevenness?

Spontaneous verbal description showing feeling for aspects of the aesthetic may be a truer indication of the aesthetic in the very young. Wilhelm Stern in his Psychology of Early Childhood (1924) reported that his daughter "L.E." at four years and four months said: "Who has made the dish so beautiful - just like a picture? How nice it looks - apples and vine leaves, you see yellow below and green above".

It is important in arguing that the development of aesthetic discernment should be a con-integrate to establish that the aesthetic dynamic is closely related to the growth of ego-consciousness. To get to the stage where the child can abstract himself from his needs and experience pure will and self-control while making aesthetic choices involves previous developmental processes (Abenheimer 1968). In the early oral phase of development, related to needs for being fed, protected, touched, comforted and brought into some sort of dialogue with caretakers (in vision, sound, holding and playing), the less good responses the baby experiences makes him exhibit defences. Self-awareness begins as the need for survival and help. In the anal phase that follows, the Freudian school believes that in the conscious expulsion of faeces the infant becomes aware of his own power. The omnipotence that results is neurotic. It becomes non-neurotic when the infant can show aggressive power without needing to feel omnipotent and achieves another development of flexible self-awareness. A third level of self-awareness, essential to aesthetic experience, comes out of the oral and anal phases. It occurs when a child can abstract himself under pressure of needs or dangers with self-control, in an authentic self, as the agent of controlled will.

An ultimate essence of all aesthetic experience has been described by Worringer (1908) as the need for self-alienation. He means this in the sense that the contemplation of the aesthetic takes the self away for a time from the problems of existence and its dangers. At the same time, there is a

bi-polar quality in aesthetic experience. It requires empathy which can objectify self-enjoyment and is a self-affirmation as well as requiring the capacity of self-alienation. In empathizing our will into another object (art, music, nature, etc.) we absorb ourself into the outer object with our urge to know it and accept, momentarily, its fixed boundaries. These boundaries limit the usual ongoing differentiation of individual needs and a self-alienation occurs. "In empathy ... I am not the real I, but am inwardly liberated from the latter ..." (Lipps 1903).

As the ego builds itself through the de-integration - re-integration process it reaches a level of function where it can afford to fuse temporarily with an object of aesthetic pleasure and thereby gain distance through alienation not only from the ego but from the self-defences. In what is felt as an empathetic ego fusion to the object, we are witnessing an ego-choice which is a self-affirmation in terms of need or taste, but a technical self-alienation in terms of the intensity with which the ego merges 'into' the chosen aesthetic object. In the development of ego-consciousness the child seems to experience two directions simultaneously. "On the conscious level he goes on developing even finer differentiations among the appearances of the real things around him, while in his unconscious fantasy life he undoes even the most fundamental differentiation of commonsense reality and so creates images that cannot have any possible correlate in rational thought" (Ehrenzweig 1967).

Both of these developmental aspects, conscious and unconscious, play into the aesthetic experience which involves a fine conscious choice and differentiation as well as the projection of unconscious image.

Aesthetic experience is paradoxical in its combination of objectified self-enjoyment and a temporary self-alienation in the urge to abstraction and fusion outside the self and its normally fixed ego boundaries. The aesthetic experience is a con-integrate because of the accumulation of these experiences which begin in early childhood and because of the particular relationship the aesthetic has to ego development and temporary separation from total control of the self. The feedback of the aesthetic can reflect upon the significance of the self and facilitate its authentic realization. The aesthetic builds ego-consciousness which contains "... its enabling awareness and consciousness, its focus of perception and its factor of mediation between itself and the environment within and without" (Lambert 1981).

e. Play

Play is a universal element of childhood. Play is a concept on its own not reducible to any one socio-psychological view of the universe or to any one stage of civilization. The play element has existed in all cultures and in all known historical periods. It may be described as a supra-biological form through which society expresses its interpretation of life and the world (Luria 1966). Why is play civilizing? The play element introduces certain rules and the concept of fair play into civilization.

This enables civilization to presuppose limitation and some mastery of the self which gives persons the ability to understand that personal conduct within any civilization must remain within certain freely accepted bounds. A general characteristic of play is tension and uncertainty. 'Will we win? Will it come off?' are conditions of uncertainty fulfilled in card games or football, in crosswords or archery, in shaking a rattle or reaching for one's toes. In the play world if the rules are transgressed, the whole play world collapses. In the same way, nations go to war if the currently accepted lawful rights of national sovereignty are overstepped.

Play has been considered both as a physiological phenomenon and a psychological reflex. These approaches overlook an aspect of "at playness" in play that imparts meaning to action. The fun of playing is rarely measured when experimenters view play as quantitative. In some types of play, biological functions are to be seen. A biological approach assumes play must serve something which is not play. Theories about this mention the need for abreaction, for outlets of harmful impulses, for wish-fulfillment and for a means to bolster the feeling of personal value. This may involve the release of extra energy through imitation, experimentation, assimilation and competition.

The contrast between play and seriousness is a fluid one. For the very young child, serious play was thought by Vygotsky to mean that the child was not separating the imaginary situation from the real one. In this way aspects of play are irrational. Tension and its solution are often

present in play. A game can represent a contest or it may become a contest for the best representation of something. Both Luria (1966) and Piaget (1951) agree that play is the leading source of development during pre-school years.

In viewing play as a con-integrate it is important to note how useful play is to early ego-strengthening. The child both pretends and tries to master adult situations through accommodation to the external situation and assimilation of experience into meaning. Play is an activity occurring before a behaviour is fully organized suggesting that aspects of ego-development are at an under-developed stage. Play can be a preparation for life both via the realization of the environment that it can demonstrate, as a repetition of experience and as the communication of symbolic fantasy. Symbolic play is assimilative in that it organizes thinking in terms of symbols and images already partly mastered. The child's ego-centric position during symbolic play enables him to make a transition over time to a more and more accurate representation of reality. As the child is more adapted, play becomes constructive and eventually the child very gradually plays less by himself after he enters the arena of school life (Millar 1968).

The idea that play may be an antidote to under-stimulation or boredom suggests that the building of more ego-experience is needed within an optimal amount of stimulation. But the concept of optimal stimulation has a wide application given the great variation in individual babies' metabolic and environmental stimulation levels. Both in its inner and outer reality for the child, play constantly challenges the ego

through its directedness, concentration and release of another form of play or non-play activity. Play is very much the child's own private ego-directed world and as such a strong conglomerate integrated very early around the ego.

As the child grows he learns through play's zone of proximal development: the imaginary is often near to the memory of the real and voluntary intentions may combine with the formation of real-life plans and volitional motives. In creating imaginary situations abstract thought develops. These abstractions, when expressed as rules, lead to the understanding of rules and the later division between work and play at school age. Play is a preamble to work.

In the young child there are many unrealizable tendencies and desires. Under age three, the infant wants immediate gratification. Play can be said to be invented at the point when the unrealizable tendencies appear in development. What interested the infant no longer interests the toddler. The transitional nature of play is described by Piaget as an intermediary between the situational constraints of early childhood and play ideas free of an actual situation. In game rules, the child can set the rules by himself free of the one-sided influence of an adult or make rules he jointly establishes with his parents. Freely chosen game rules include both self-restraint and self-determination. The ego is being relativized and has a close developmental relationship to the play-con-integrate.

f. Persona

Jung defines the persona as "... a function-complex which has come into existence for reasons of adaptation or necessary convenience, but by no means is it identical with the individuality. The function-complex of the persona is exclusively concerned with the relation to the object..." (Jung CW 6). Throughout the stages of life one adapts one's persona constantly to pressures of the environment and of one's own evolving value system. Persona is "a psycho-physical attitude that mediates between the inner and outer worlds, a kind of mask we develop to maintain a relatively constant or consistent front to the outside world, through which those we meet may relate to us fittingly" (Jacobi 1976).

Where in early childhood do we see signs of adaptation that are reflected in external behaviour? The infant's early persona is immediately involved with smiling. Ende and Harrison (1972) measured this to be at a rate of 11 times in every 100 minutes. They related this to internal arousal state or a change of state and to recognizable EEG patterns. The social smile appears in the third week when a mechanical noise no longer elicits a smile as well as a human voice does and as eye-to-eye contact begins to further alter smiling patterns (Macfarlane 1975). I would argue that the first almost embryonic appearance of a persona in the baby begins with his use of the social smile, at first unconsciously, and later very consciously and manipulatively. Shaffer (1971) argues that reciprocal behaviour, which would

involve the baby's use of cognition and a conscious persona, begins at the very end of the first year of life. Reciprocal intentional signalling to the mother requires comprehension of the difference between self-behaviour and the behaviour of the other and some awareness of feedback from self-produced behaviour. Feedback also requires the ability to anticipate the outcome of behaviour from past memory and to regulate responses in relation to this feedback.

The close connection with ego development is obvious if the persona helps the signalling processes and enables the child to begin to test details of his behaviour against the feedback he receives from his caretakers. Although the persona is very gradually socially developed during early childhood, it becomes such an important aspect of adult behaviour as to give it sufficient force to be a con-integrate from the beginning of infancy. Behavioural studies have tended to quantify measures of smiling, crying, eye movements and the like without picking up the idiosyncratic differences within these modes in individual children as their person develops and acts to alter their manner of appearing and doing. Families mould persona so individually that by the time the child enters school he will need a major change of persona adaptation towards the group. The persona's adaptive function deals with incoming stimulation in a principal way from very early life and is, I believe, a con-integrate in its great influence upon the ego's role in behaviour and style of response throughout life.

g. Defence of self

Self-defence as a con-integrate refers to the ways the infant can defend the self constellation psychologically. This is particularly dependent on the early sources of security and competence and of ego-defence. A study of how personal relationships begin in childhood suggests that they are dependent on having elements of security and competence between child and caretaker. Whether the child is socially advantaged or disadvantaged does not give us a probability statement about what damage may occur to the self at psychiatric levels of disorder. Often children from stable homes do show disorders of the self and children from disadvantaged homes may come through unfortunate experiences and still develop competence and psychological security.

In children's earliest social development in the first months of life, infants respond in much the same way both to familiar adults and to strangers. At about seven months infants usually attach to a specific person although it can happen from 3½ months to 15 months (Ainsworth 1967). Neither feeding nor caretaking is the essential feature. The intensity of interaction seems to have the greatest effect in bonding (Stayton and Ainsworth 1973). Increased anxiety and fear, expressing an ego needing defence, or illness when the self is attacked, increases the baby's attachment seeking (Bowlby 1969). There is a persisting hierarchy among attachments (Schaffer and Emerson 1964).

The reduction of anxiety if a familiar person is present, in a strange situation, proves how important bonding is (Cohen and Campos 1974). Bonding is differentiated from attachment by the selectivity in relationships in which the infant persists over time and place. It is associated with older children at one or two years when the ego is being used by the child in this lasting selection of relationships more apparently than in infant attachment where ego competence is still not ripe.

New-born infants react in a specific and individual way to frustration since de-integrates do not yet re-integrate easily. A similar reaction is present in surprise when the ego must try cognitive appraisal. Fraiberg (1968) points out that every baby defends or protects himself in very specific ways. Anxiety can become attached to ideas where previous experience produced pain, frustration, instinctive denial (hunger, cold, pain and general somatic distress), loneliness or the need to be autonomous. Macfarlane et al (1954) studied 100 infants of 21 months of age and found 30% had specific fears. At three years, 70% were affected by fears.

By the third week the normal baby is using smiles to insure that adults will interact with him. This is a primary defence of the self. The grasping reflex in the first two days enables a baby to hold onto a hand or finger and gain stability and contact at once. At six weeks amidst the gurgles and babbling and crying, some syllables can be heard. There is a rapid read-out of

defences for the self as the ego de-integrates out to objects to assimilate them and re-integrate those which match his self-ego development. Self-defence is, like the other con-integrates, a very early vital reservoir of experience and capacity to cope with attacks to security, competence and survival. It would occupy a central position of control among the con-integrates filtering incoming stimuli from the ego to see if defence of the self were needed. Then the incoming stimulus would filter into other con-integrates or if more general in nature and further down the hierarchy of self, it might be designated to a multi-integrate level and find its way to the more general store of integrative aspects of the self.

4. Theory and empirical evidence

It is not the task of the theoretician to provide complete empirical evidence. Other workers in the field can continue to build that up. Postulation requires a strong conjecture to be put forward as scientific theory and defended within the present knowledge in psychology. When experimental psychology is ready to acknowledge the unconscious through its projection into conscious behaviour we will have the requisite foundation from which to explore what experiments can achieve for a self theory. In the past experimenters have rarely been sufficiently close to the work of depth psychologists to fully comprehend what is being claimed and to determine if it is testable by experiment.

Basically depth psychologists cannot be blind to human experience or convert it very easily into a laboratory setting. Individual experience and its detail is important to them. 'Individual' implies that a self involving a total personality is what needs to be tested by experimenters in broadly-based open-ended psychometric approaches. If experimenters could work more effectively with depth psychologists and analysts it might be possible to begin to quantify depth psychology with carefully designed research and strictly controlled experiments. The chief problem has been that the postulates of depth psychology are difficult to frame in an experimental design. To do so, experimenters have often so altered the meaning of the behaviour to be tested as to be testing something other than the postulate under question.

Using Jung's totality definition of the self, it can be argued that the self theory should be the principal framework for human psychology as a whole. For all psychological work is the psyche talking about and working with the psyche. That includes everything that can occur to the psyche all of which must occur within some self or selves. To bring back the self theory to its inherent position of importance would be an important goal for the future of a total psychology - one that includes the riches of the unconscious and its manifestations in conscious experience. In a hierarchical self theory to which this book contributes, we have suitable boundaries for a unity among workers' approaches to the psychology of the self in all of its ramifications.

Chapter VII. The con-integrates theory, its empirical
research and philosophy

1. The self/ego-integrates theory as a universal theory

Most of the group of 'self' psychologists who worked in the United States since 1900 neglected the childhood self as the working basis of their theories. Of W. James, C.H. Cooley, G.H. Mead, R.B. Cattell, E.H. Erikson, A.H. Maslow, P. Lecky, A. Angyal, H.S. Sullivan, K. Horney, E. Fromm, C. Rogers, K. Goldstein, W. McDougall and G. Allport, only the theories of Sullivan and Allport and the work of H. Kohut (discussed in Chapter II, 3, b-5) closely relates to the body of work being extended here about childhood self.

Sullivan drew attention to the fact that subjects with differing available concepts focussed on different aspects of the 'same' stimulus. For self behaviour this is interesting because two similar behaviours may not have similar self-conceptions behind them. The monitoring of self by appraisal and the differentiation of self/not-self is well introduced by Sullivan (1953) but like the other workers in America, he treated the self as merely persisting and consistent behaviour which was his measure of the self throughout personal development. The self/ego-integrates system, proposed in Chapter VI, sets up a process and dynamic for behaviour but it contains enough flexibility through its repression, memory and de-integration systems to allow theoretically for all behaviours; it is psychologically well grounded in self theory (Jung, Fordham) and its extension in ego-integrate

theory (Ryce). Sullivan argued for consistency of behaviour as the teleological goal of self. It is rather the early archetypal behaviour of infants that has some behavioural consistency in the early deintegration-reintegration of archetypal image-matches that secures the first threshold of ego-development and begins the ego-self differentiation. Later behaviour is much too varied and complex to be consistent as measured by external means over time. As the ego develops together with its integrates the range of self behaviour would deny any possible externally measured consistency of self across a large population as a measure of behaviour except in extremely general terms, such as introversion-extroversion as a typology.

Sullivan discussed the 'good-me' and 'bad-me' concept in babies and concentrated his interest on anxiety states picked up from the mother. He reduced all early experience at the breast to "nothing but" a reactivity based on the degree of ego security in the child as achieved at feeding. In not dealing with archetypes Sullivan falls into the trap of supposing that the ego's only concern is defence. In relating the con-integrates to the ego I have tried to show the integral set of developing ego-areas that influence the developing self. All these may contain an element of defence, like an immune system in the body, but they contain many other dynamics as well.

G. Allport (1961) looked at self in young infants and believed in a functional autonomy. His Freudian orientation precluded his understanding of the collective unconscious and its important contribution to the self.

Allport named all ego-functions the 'proprieate' functions. During the first three years he thought the baby's self-experience consisted of a 'self-body' sense, a 'self-identity' and a 'self-esteem'. He confused the role of the ego by stating that no self/ego acts as an entity distinct from the remainder of personality. In the arche-typal sense, with which Allport never dealt, this is true, for unless the collective and personal unconscious can adapt to ego behaviour, and vice versa, the personality disintegrates. However the ego can function at a conscious level independently of its integrates in that it can use its repression system and control what enters the self for conscious dynamic use. My contention is that the ego is a process and the Flow-Diagram (Chapter VI) of the ego's dynamic process, showing its theoretical structural mechanism, is perhaps the solution to Allport's dilemma. It should be possible to include all of Allport's developmental self functions in my model. Allport names those developing after age three as self-extension, rational thinking, self-image, proprieate striving and the function of knowing. It is endemic to the ego's deintegration-reintegration pattern that a great range of ego material is accepted by the self/ego system for use and storage.

The con-integrate ego system makes clear how the ego-match to archetypal images and recognizable self-objects develops the personality from infancy. Such a system can theoretically operate to create the genius level of a Mozart or a Menuhin in infancy or the result of the other end of the same spectrum, the autistic infant.

Definite expression of development becomes more dependent on the nature of the environmental stimulation in relation to the ego-integrates than to exact intelligence levels. One could say intelligence levels may largely depend on the initial experiences of self, mediated by the ego, its con-integrates, the multi-integrates and the fortunes of health, genetic and maturational.

2. The research situation

As all activities, functions and structures of the psyche are subject to development, a theoretical requirement has been a clearer differentiation between ego and self and a more detailed developmental ego concept during the first years of life. The con-integrate theory modifies ego-self theory by suggesting that the ego-conglomerates are vital support systems for ego processes.

Development of this process depends on hereditary aspects, aspects pertaining to intrauterine and intraparture events and early postnatal experience. In reviewing empirical studies Schaffer (1971) proposes that the neonate has a structure that predetermines apprehension of the external world and a stimulus barrier affecting selection. Continuous adaptation transforms patterns of structure cognitively so that the baby changes his response patterns over time. By the tenth month Schaffer suggests an internal scan exists in children with which to match external image to internal image. Together with Fordham (1958b, 1969, 1976) I believe this match occurs during the first weeks of life and the deintegration-reintegration ego-process is present early on.

The development of an enmeshing, entraining intensity of interaction between self and other is empirically supported by one hundred scientific papers quoted in but one review of child development by Schaffer and Dunn (1979).

A particular example of research is by Spitz, Ende and Metcalf (1970) who recorded a clearly defined change in the third month in babies. They discovered that at this time there occurred the emergence of quiet sleep, rapid eye movement states, changes in smiling patterns and the introduction of the adult form of the EEG sleep-spindle pattern. These changes would suggest that ego-differentiation correlates with the rapid development of the ego-integrates as they build up through the deintegration-reintegration process and that these changes found in laboratory testing by Spitz et al. are actually to do with ego-integrates' development in the self. For example, exogenous smiling independent of the infant's endogenous needs, begins to occur after six to twelve weeks. Actions of anticipation based on memory become present and directed action is seen by the third month. This third-month development suggests that some of the con-integrates are starting to function in ego-support. Whereas endogenous smiling is present in even a microcephalic infant with no functioning cerebral tissue (Harmon and Ende 1970) and is believed to be mediated by the brainstem, the change to exogenous smiling between six and twelve weeks marks the increased function of the ego and its integrates to the outside world.

What kind of empirical approach is applicable to the study of the con-integrates? It could be said initially that wherever an organization of a behavioural element can be postulated as present in the child's psyche from three months forward (Spitz et al. 1970) that this is the developing ego and its integration system visibly functioning. After speech occurs, its patterns should reveal some of the con-integrates as they further develop in function, provided the observer can read the projection of archetypal images from the collective unconscious as it projects outward from the child's Shadow con-integrate and include this aspect in assessment. Depth psychologists are needed to help interpret play in the infant. Often activities are reported with little understanding of their symbolic significance and hence of the Play con-integrate's true relation to ego-self. The Ego-Ideal con-integrate can be measured by finding differences in behaviour that parents' behaviour-style elicits from the child and studying the child's projections of archetypal material as he interacts with parents. Sand-plays, drawing and paintings made by children are useful projective tools among others in the field. They can be correlated with longitudinal behaviour studies of family dynamics. The Aesthetic con-integrate cannot be measured quantitatively early on but careful observation of developmental signs of the earliest aesthetic awareness could lead one to its origins and its process which have never been clearly defined. The same may be said of the Persona con-integrate and its development (see Chapter VI, 3 for full discussion).

The great challenge to empirical study of the con-integrates is that it is essential to include experimental criteria of what only the subject knows about his own behaviour not just what another can measure. In the young child it is notoriously difficult to interpret experimenters' description and interpretation of early language but archetypally projected images can be studied by photographing the child's art or sand-play creations while taping any spoken interaction and photographing the child's movements and manner of using toys. Where the function of the archetypes is not included in the psychological study of early childhood, empirical work may remain full of unrelated detail in hundreds of thousands of experiments unrelated to any complete theory of the self/ego and hence become both parenthetical and perseverative. Babies cannot be reduced to organism or process alone. They are persons and however obscure the form of the personal has remained in psychology as a whole, the self/ego system is inevitably involved in behaviour. As the self is mediated by the ego's constructions and interpretations as agent, then experimentalists run a danger of incompleteness in that statements about personality should include deductions both from laboratory data itself and from the self-evaluation of those tested where age allows. The predictive capacity of experiments is questioned because the individual self cannot predict itself. The ego and the con-integrates have sufficient freedom of response within their archetypal framework to be simultaneous agents of the psyche. This precludes laboratory measurement of past

behaviour as totally predictive of future behaviour. The influence of outside objects and their study neglects the fact that the self-ego system can adapt its interpretation and meaning concepts constantly, so that over time the person's interactions change. The standpoint of the agent is in flux.

A parallel study to this idea concerning the indeterminism of self-prediction is found in K.R. Popper's work (see Popper and Eccles 1977). While the probability of events may be predicted from precise information, provided that similar conditions are present for their occurrence, events between the subject and object and their closed system of interaction leads to the unpredictability of events. Popper points out that it is impossible for a calculator to have up-to-date information about itself. I assert here it may also be impossible for the self, in each ego-decision process, to be up-to-date with the present and complex incoming demands. Past states can be explained in detail. It is self-prediction while constantly interacting with an on-going self system that cannot be accurate. The interaction introduces a disturbance into the system whose magnitude is unpredictable.

If a standpoint within this total ongoing action of self is not the paradigm for psychology, i.e. the self/ego-integrates system proposed here, the alternative is a scattered, broken up set of aggregates of extreme psychological specializations lacking coherence or an organizing principle. Disconnected data demands a self theory inclusive of childhood leading on through to old age. Hypotheses need

a developmental procedure that is open to what persons of any age can do and become. The self and the ego-integrates are the processing systems which can include a knowledge of what the person knows about his own behaviour as well as what others observe that behaviour to be. The amalgam of inner and outer experience of self/ego, including the repeated experiencing of the archetypes is the totality within which psychology should be conducting its investigations. Personality is not only what it seems to be for others, it is also what one knows it to be oneself. It is both about what one can do and about what is experienced in the doing. Action is experiential. This gives two sorts of propositions that lead on to higher-order theoretical propositions; one of the behavioural action and one of the experience of the actor.

3. The philosophical position

Throughout this reappraisal of the self concept I have assumed for theoretical purposes that Kant's 'Transcendental Deduction' in his Critique of Pure Reason (1788) is a philosophical basis for arguing the general approach I have used. A summary of those elements of Kant's arguments with which the self concepts deal would be that:

- a) all experience includes a plurality of sensory elements and for these to be seen as subsumed by a single consciousness it must be possible to posit a self which is able to be conscious of itself;
- b) judgments are required to bring elements together into a potentially self-conscious experience so experience is united by a propositional form;

c) an equivocation about self-consciousness would be that there are differing kinds: 1- a minimal self-consciousness, 2- a reflective awareness during experience that one is having experience and 3- a full consciousness of a persisting self requiring inbuilt judgments about the self's past for its conceptualizing;

d). there is a structural element in the conception of experience that we can make intelligible to ourselves which is pervasive, based on experience and related to self as a way of functioning and of knowing or experiencing. (This is the self-totality framing the self/ego as its 'centre' control of action-interpretation).

In the use of concepts to aid the interpretation which the self may use about itself, I refrain from citing Kant's belief in cause and effect as applicable to any and all experience: rather, I present the enlargement of the self/ego theory as the self's structural/dynamic system without touching on the philosophical arguments of strict causal theories. They are outside our direct concern. What can be said is that the self is a required unity if the psyche is to make experience coherently conceivable in a single consciousness. Theoretically, the subject may or may not ascribe each item of psychological experience to himself; although he must be able to do so in theory, he may not be so self-conscious as actually to do so (see Autism, Chapter III). Mental recognition that contains concepts, requires a span of memory if experience is to become fully conscious and involve the elements together. The entity of such a consciousness involves a duality of apperception and of concept.

These representations of apperception and concept belong to "... a single consciousness in the sense that they are remembered, compared, and so on ..." (Mackie 1974) but they may not be seen as belonging to a single consciousness in the psychopathology of self as in the contrast between 'mine' and 'not-mine' in object relations. P.F. Strawson (1968) sums up the position regarding the need for a self conception in The Bounds of Sense: "... any course of experience of which we can form a coherent conception must be, potentially, the experience of a self-conscious subject and, as such, must have such internal, concept-carried connectedness as to constitute it (at least in part) a course of experience of an objective world, conceived of as determining the course of that experience itself".

The con-integrates are proposed as the self's chief concept-carriers. They function under the direction of the ego and unify the self's objective input to its own subjective connectedness of experiencing. The influence of the archetypes is seen as the a priori categories of universal human experience as they read-out in projection from the collective level of the unconscious. The archetypes contribute a degree of regularity within the self's innate propensity to interpret sequences of impressions as unity within complexity, but their influence over time will be altered by the ego's propensities.

4. Conclusions

In proposing a more extended theory of the ego, two ideas were fundamental to its inception: 1) that existing ego theory was not sufficiently related to contemporary empirical studies and that these areas needed to be brought together and 2) that the relationship of the ego process to the self concept as a paradigm for individual psychology needed further elucidation, defence and theoretical amplification. To the extent that this study achieves its purpose a further step will have been taken toward the full clarification of the self as it constellates its ego process.

Psychologists have been diffident in recent times about extending ego theory. The disarray in the field concerning the postulates of ego function is marked. In proposing a model for the ego-process, carefully elucidated and growing out of the most substantial historical work in ego psychology that precedes it, the author has attempted to confront the psychological professions with systematic and thoroughly argued theory. There has been an attempt to define the terms 'ego' and 'self' with clarity and to make formulations parsimonious throughout. The mode of presentation of the ego process in a flow diagram follows the precept that scientific explanation should explain the 'most with the least'. A theory should be a simplifying statement.

The con-integrates are postulated to show how a large number of apparently different inputs to the ego system have much in common in their processing into the psychic structure. The possibilities for predictability studies

should be much enhanced by the theory of the con-integrates and their related memory systems. Empirical work must contain the context that gave it its motivation for study: man's subjective experience of self and its ego-processes. The theory of the self objectivizes this subjective set of facts in a hierarchical construct, which is parsimonious, partially testable in that its postulates are open to falsification, and which provides an exciting heuristic orientation to ego psychology of great explanatory power.

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