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A theory of thinking

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(i) In this paper I am primarily concerned to present a theoretical system. Its resemblance to a philosophical theory depends on the fact that philosophers have concerned themselves with the same subject-matter; it differs from philosophical theory in that it is in intended, like all psychoanalytical theories, for use. It is devised with the intention that practising psychoanalysts should restate the hypotheses of which it is composed in terms of empirically verifiable data. In this respect it bears the same relationship to similar statements of philosophy as the statements of applied mathematics bear to pure mathematics.

The derived hypotheses that are intended to admit of empirical test, and to a lesser extent the theoretical system itself, bear the same relationship to the observed facts in a psychoanalysis as statements of applied mathematics, say about a mathematical circle, bear to a statement about a circle drawn upon paper.

(ii) This theoretical system is intended to be applicable in a significant number of cases; psychoanalysts should therefore experience realizations that approximate to the theory.

I attach no diagnostic importance to the theory, though I think it may be applicable whenever a disorder of thought is believed to exist. Its diagnostic significance will depend upon the pattern formed by the constant conjunction of a number of theories of which this theory would be one.

It may help to explain the theory if I discuss the background of

emotional experience from which it has been abstracted. I shall do this in general terms without attempting scientific rigour.

(iii) It is convenient to regard thinking as dependent on the successful outcome of two main mental developments. The first is the development of thoughts. They require an apparatus to cope with them. The second development, therefore, is of this apparatus that I shall provisionally call thinking. I repeat – thinking has to be called into existence to cope with thoughts.

It will be noted that this differs from any theory of thought as a product of thinking, in that thinking is a development forced on the psyche by the pressure of thoughts and not the other way round. Psychopathological developments may be associated with either phase or both, that is, they may be related to a breakdown in the development of thoughts, or a breakdown in the development of the apparatus for 'thinking' or dealing with thoughts, or both.

(iv) 'Thoughts' may be classified, according to the nature of their developmental history, as preconceptions, conceptions or thoughts, and finally concepts; concepts are named and therefore fixed conceptions or thoughts. The conception is initiated by the conjunction of a preconception with a realization. The preconception may be regarded as the analogue in psychoanalysis of Kant's concept of 'empty thoughts'. Psychoanalytically the theory that the infant has an inborn disposition corresponding to an expectation of a breast may be used to supply a model. When the preconception is brought into contact with a realization that approximates to it, the mental outcome is a conception. Put in another way, the preconception (the inborn expectation of a breast, the *a priori* knowledge of a breast, the 'empty thought') when the infant is brought in contact with the breast itself, mates with awareness of the realization and is synchronous with the development of a conception. This model will serve for the theory that every junction of a preconception with its realization produces a conception. Conceptions therefore will be expected to be constantly conjoined with an emotional experience of satisfaction.

(v) I shall limit the term 'thought' to the mating of a preconception with a frustration. The model I propose is that of an infant whose expectation of a breast is mated with a realization of no breast available for satisfaction. This mating is experienced as a no-breast, or 'absent' breast inside. The next step depends on the infant's capacity for frustration: in particular it depends on whether the decision is to evade frustration or to modify it.

(vi) If the capacity for toleration of frustration is sufficient the 'no-breast' inside becomes a thought, and an apparatus for 'thinking' it

develops. This initiates the state, described by Freud in his 'Two principles of mental functioning', in which dominance by the reality principle is synchronous with the development of an ability to think and so to bridge the gulf of frustration between the moment when a want is felt and the moment when action appropriate to satisfying the want culminates in its satisfaction. A capacity for tolerating frustration thus enables the psyche to develop thought as a means by which the frustration that is tolerated is itself made more tolerable.

(vii) If the capacity for toleration of frustration is inadequate, the bad internal 'no-breast', that a personality capable of maturity ultimately recognizes as a thought, confronts the psyche with the need to decide between evasion of frustration and its modification.

(viii) Incapacity for tolerating frustration tips the scale in the direction of evasion of frustration. The result is a significant departure from the events that Freud describes as characteristic of thought in the phase of dominance of the reality principle. What should be a thought, a product of the juxtaposition of preconception and negative realization, becomes a bad object, indistinguishable from a thing-in-itself, fit only for evacuation. Consequently the development of an apparatus for thinking is disturbed, and instead there takes place a hypertrophic development of the apparatus of projective identification. The model I propose for this development is a psyche that operates on the principle that evacuation of a bad breast is synonymous with obtaining sustenance from a good breast. The end result is that all thoughts are treated as if they were indistinguishable from bad internal objects; the appropriate machinery is felt to be, not an apparatus for thinking the thoughts, but an apparatus for ridding the psyche of accumulations of bad internal objects. The crux lies in the decision between modification and evasion of frustration.

(ix) Mathematical elements, namely straight lines, points, circles, and something corresponding to what later become known by the name of numbers, derive from realizations of two-ness as in breast and infant, two eyes, two feet, and so on.

(x) If intolerance of frustration is not too great, modification becomes the governing aim. Development of mathematical elements, or mathematical objects as Aristotle calls them, is analogous to the development of conceptions.

(xi) If intolerance of frustration is dominant, steps are taken to evade perception of the realization by destructive attacks. In so far as preconception and realization are mated, mathematical conceptions are formed, but they are treated as if indistinguishable from things-in-themselves and are evacuated at high speed as missiles to

annihilate space. In so far as space and time are perceived as identical with a bad object that is destroyed, that is to say a no-breast, the realization that should be mated with the preconception is not available to complete the conditions necessary for the formation of a conception. The dominance of projective identification confuses the distinction between the self and the external object. This contributes to the absence of any perception of two-ness, since such an awareness depends on the recognition of a distinction between subject and object.

(xii) The relationship with time was graphically brought home to me by a patient who said over and over again that he was wasting time – and continued to waste it. The patient's aim is to destroy time by wasting it. The consequences are illustrated in the description in *Alice in Wonderland* of the Mad Hatter's tea-party – it is always four o'clock.

(xiii) Inability to tolerate frustration can obstruct the development of thoughts and a capacity to think, though a capacity to think would diminish the sense of frustration intrinsic to appreciation of the gap between a wish and its fulfilment. Conceptions, that is to say the outcome of a mating between a preconception and its realization, repeat in a more complex form the history of preconception. A conception does not necessarily meet a realization that approximates sufficiently closely to satisfy. If frustration can be tolerated, the mating of conception and realizations whether negative or positive initiates procedures necessary to learning by experience. If intolerance of frustration is not so great as to activate the mechanisms of evasion and yet is too great to bear dominance of the reality principle, the personality develops omnipotence as a substitute for the mating of the preconception, or conception, with the negative realization. This involves the assumption of omniscience as a substitute for learning from experience by aid of thoughts and thinking. There is therefore no psychic activity to discriminate between true and false. Omniscience substitutes for the discrimination between true and false a dictatorial affirmation that one thing is morally right and the other wrong. The assumption of omniscience that denies reality ensures that the morality thus engendered is a function of psychosis. Discrimination between true and false is a function of the non-psychotic part of the personality and its factors. There is thus potentially a conflict between assertion of truth and assertion of moral ascendancy. The extremism of the one infects the other.

(xiv) Some preconceptions relate to expectations of the self. The preconceptual apparatus is adequate to realizations that fall in the narrow range of circumstances suitable for the survival of the infant.

One circumstance that affects survival is the personality of the infant himself. Ordinarily the personality of the infant, like other elements in the environment, is managed by the mother. If the mother and child are adjusted to each other, projective identification plays a major role in the management; the infant is able through the operation of a rudimentary reality sense to behave in such a way that projective identification, usually an omnipotent phantasy, is a realistic phenomenon. This, I am inclined to believe, is its normal condition. When Klein speaks of 'excessive' projective identification I think the term 'excessive' should be understood to apply not to the frequency only with which projective identification is employed but to excess of belief in omnipotence. As a *realistic* activity it shows itself as behaviour reasonably calculated to arouse in the mother feelings of which the infant wishes to be rid. If the infant feels it is dying it can arouse fears that it is dying in the mother. A well-balanced mother can accept these and respond therapeutically: that is to say in a manner that makes the infant feel it is receiving its frightened personality back again, but in a form that it can tolerate – the fears are manageable by the infant personality. If the mother cannot tolerate these projections the infant is reduced to continue projective identification carried out with increasing force and frequency. The increased force seems to denude the projection of its penumbra of meaning. Reintrojection is affected with similar force and frequency. Deducing the patient's feelings from his behaviour in the consulting room and using the deductions to form a model, the infant of my model does not behave in a way that I ordinarily expect of an adult who is thinking. It behaves as if it felt that an internal object has been built up that has the characteristics of a greedy vagina-like 'breast' that strips of its goodness all that the infant receives or gives, leaving only degenerate objects. This internal object starves its host of all understanding that is made available. In analysis such a patient seems unable to gain from his environment and therefore from his analyst. The consequences for the development of a capacity for thinking are serious ; I shall describe only one, namely, precocious development of consciousness.

(xv) By consciousness I mean in this context what Freud described as a 'sense-organ for the perception of psychic qualities'.

I have described previously (at a Scientific Meeting of the British Psycho-Analytical Society) the use of a concept of 'alpha-function' as a working tool in the analysis of disturbances of thought. It seemed convenient to suppose an alpha-function to convert sense data into alpha-elements and thus provide the psyche with the material for dream thoughts, and hence the capacity to wake up or go to sleep, to

be conscious or unconscious. According to this theory consciousness depends on alpha-function, and it is a logical necessity to suppose that such a function exists if we are to assume that the self is able to be conscious of itself in the sense of knowing itself from experience of itself. Yet the failure to establish, between infant and mother, a relationship in which normal projective identification is possible precludes the development of an alpha-function and therefore of a differentiation of elements into conscious and unconscious.

(xvi) The difficulty is avoided by restricting the term 'consciousness' to the meaning conferred on it by Freud's definition. Using the term 'consciousness' in this restricted sense it is possible to suppose that this consciousness produces 'sense-data' of the self, but that there is no alpha-function to convert them into alpha-elements and therefore permit of a capacity for being conscious or unconscious of the self. The infant personality by itself is unable to make use of the sense data, but has to evacuate these elements into the mother, relying on her to do whatever has to be done to convert them into a form suitable for employment as alpha-elements by the infant.

(xvii) The limited consciousness defined by Freud, that I am using to define a rudimentary infant consciousness, is not associated with an unconscious. All impressions of the self are of equal value; all are conscious. The mother's capacity for reverie is the receptor organ for the infant's harvest of self-sensation gained by its conscious.

(xviii) A rudimentary conscious could not perform the tasks that we ordinarily regard as the province of consciousness, and it would be misleading to attempt to withdraw the term 'conscious' from the sphere of ordinary usage where it is applied to mental functions of great importance in rational thinking. For the present I make the distinction only to show what happens if there is a breakdown of interplay through projective identification between the rudimentary consciousness and maternal reverie.

Normal development follows if the relationship between infant and breast permits the infant to project a feeling, say, that it is dying, into the mother and to reintroject it after its sojourn in the breast has made it tolerable to the infant psyche. If the projection is not accepted by the mother the infant feels that its feeling that it is dying is stripped of such meaning as it has. It therefore reintrojects, not a fear of dying made tolerable, but a nameless dread.

(xix) The tasks that the breakdown in the mother's capacity for reverie have left unfinished are imposed on the rudimentary consciousness; they are all in different degrees related to the function of correlation.

(xx) The rudimentary consciousness cannot carry the burden placed

on it. The establishment internally of a projective-identification-rejecting-object means that instead of an understanding object the infant has a wilfully misunderstanding object – with which it is identified. Further its psychic qualities are perceived by a precocious and fragile consciousness.

(xxi) The apparatus available to the psyche may be regarded as fourfold:

(*a*) Thinking, associated with modification and evasion.
(*b*) Projective identification, associated with evasion by evacuation and not to be confused with normal projective identification (para. xiv on 'realistic' projective identification.)
(*c*) Omniscience (on the principle of *tout savoir tout condamner*).
(*d*) Communication

(xxii) Examination of the apparatus I have listed under these four heads shows that it is designed to deal with thoughts, in the broad sense of the term, that is including all objects I have described as conceptions, thoughts, dream thoughts, alpha-elements and beta-elements, as if they were objects that had to be dealt with (*a*) because they in some form contained or expressed a problem, and (*b*) because they were themselves felt to be undesirable excrescences of the psyche and required attention, elimination by some means or other, for that reason.

(xxiii) As expressions of a problem it is evident they require an apparatus designed to play the same part in bridging the gap between cognizance and appreciation of lack and action designed to modify the lack, as is played by alpha-function in bridging the gap between sense-data and appreciation of sense-data. (In this context I include the perception of psychic qualities as requiring the same treatment as sense-data.) In other words just as sense-data have to be modified and worked on by alpha-function to make them available for dream thoughts, etc., so the thoughts have to be worked on to make them available for translation into action.

(xxiv) Translation into action involves publication, communication, and commonsense. So far I have avoided discussion of these aspects of thinking, although they are implied in the discussion and one at least was openly adumbrated; I refer to correlation.

(xxv) Publication in its origin may be regarded as little more than one function of thoughts, namely making sense-data available to consciousness. I wish to reserve the term for operations that are necessary to make private awareness, that is awareness that is private to the individual, public. The problems involved may be regarded as technical and emotional. The emotional problems are associated with

the fact that the human individual is a political animal and cannot find fulfilment outside a group, and cannot satisfy any emotional drive without expression of its social component. His impulses, and I mean all impulses and not merely his sexual ones, are at the same time narcissistic. The problem is the resolution of the conflict between narcissism and social-ism. The technical problem is that concerned with expression of thought or conception in language, or its counterpart in signs.

(xxvi) This brings me to communication. In its origin communication is effected by realistic projective identification. The primitive infant procedure undergoes various vicissitudes, including, as we have seen, debasement through hypertrophy of omnipotent phantasy. It may develop, if the relationship with the breast is good, into a capacity for toleration by the self of its own psychic qualities and so pave the way for alpha-function and normal thought. But it does also develop as a part of the social capacity of the individual. This development, of great importance in group dynamics, has received virtually no attention; its absence would make even scientific communication impossible. Yet its presence may arouse feelings of persecution in the recipients of the communication. The need to diminish feelings of persecution contributes to the drive to abstraction in the formulation of scientific communications. The function of the elements of communication, words and signs, is to convey either by single substantives, or in verbal groupings, that certain phenomena are constantly conjoined in the pattern of their relatedness.

(xxvii) An important function of communications is to achieve correlation. While communication is still a private function, conceptions, thoughts, and their verbalization are necessary to facilitate the conjunction of one set of sense-data with another. If the conjoined data harmonize, a sense of truth is experienced, and it is desirable that this sense should be given expression in a statement analogous to a truth-functional statement. The failure to bring about this conjunction of sense-data, and therefore of a commonplace view, induces a mental state of debility in the patient as if starvation of truth was somehow analogous to alimentary starvation. The truth of a statement does not imply that there is a realization approximating to the true statement.

(xxviii) We may now consider further the relationship of rudimentary consciousness to psychic quality. The emotions fulfil for the psyche a function similar to that of the senses in relation to objects in space and time: that is to say, the counterpart of the commonsense view in private knowledge is the common emotional view; a sense of

truth is experienced if the view of an object which is hated can be conjoined to a view of the same object when it is loved, and the conjunction confirms that the object experienced by different emotions is the same object. A correlation is established.

(xxix) A similar correlation, made possible by bringing conscious and unconscious to bear on the phenomena of the consulting room, gives to psychoanalytic objects a reality that is quite unmistakable even though their very existence has been disputed.