

THE INSTITUTE OF PSYCHO-ANALYSIS
LONDON



The
International
Journal of
Psycho-Analysis

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Incorporating
the International
Review of
Psycho-Analysis

DECEMBER 1996 VOLUME 77 PART 6

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PROBLEMS IN THE CONCEPT OF REPRESSION AND PROPOSALS FOR THEIR RESOLUTION

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The authors of this paper accept the reality of the phenomenon of repression and consider that it alone explains many kinds of psychopathology. Nevertheless, the assumption in Freud's sketch of the mechanism of repression that the ego continually guards against the repressed impulse becoming conscious creates a logical problem. That would require that the ego remain aware of the repressed. A mental act becomes conscious only by being made the object of a second mental act, not through possessing intrinsic consciousness. Some barrier must be set up to prevent this second mental act. Freud's concept of primal repression is compared with Kleinian concepts of splitting and projection, which seem to avoid some of his difficulties. It is proposed that as a result of initial outbursts of anxiety, neurological blockages are set up between the neural registrations of certain images of instinctual gratification and those other neural organisations that could register the occurrence of those images. The latter thus remain unknown, though still affecting behaviour. Neurological findings suggest that some such mechanism is possible.

In 'Repression' Freud writes: '*the essence of repression lies simply in turning something away, and keeping it at a distance, from the conscious*' (1915a, p. 147). The term 'essence' has sometimes led to this being quoted as if it encompassed the entire meaning of repression, while in fact it is only part of it. It omits to mention the characteristic of the things kept at a distance from the conscious, which is that they would cause guilt if recalled. It does, however, show that Freud regarded the repression of any mental process as a continuing activity—'keeping it at a distance'—and that is where the central problem emerges, namely, how this is possible after the material has been repressed from awareness.

The proposal that we can have beliefs, fears and intentions of which we know nothing is so contrary to conventional ideas that it and the allied concepts of repression and

the unconscious are among the elements of psychoanalysis that are quickest to provoke scorn and disbelief. This has led many academic psychologists to attempt demonstrations or refutations of the phenomenon of repression. In his survey of sixty years of this research (1990) Holmes concludes that 'clever and thoughtful' investigators have been unable to demonstrate repression in the laboratory. The findings that do appear to demonstrate repression can readily be given alternative explanations, in terms such as conscious suppression of embarrassing material.

Laboratory phenomena that are sometimes claimed to reveal the possibility of repression include unconscious memory and blindsight. Unconscious memory appears when a subject's performance of a task reveals the effect of previous relevant experiences that the subject cannot consciously

recall (Jacoby & Witherspoon, 1982). Blindsight is the interesting phenomenon found in patients with damage to the geniculostriate nervous pathway from the retina to the occipital lobe. Where this causes hemianopia, in which patients report that they can see nothing in the affected half of the visual field, they nevertheless make fairly accurate 'guesses' about the position, orientation and movement of visual stimuli directed to the blind field (Weiskrantz, 1986). Philosophers find this intriguing because it seems to show that perception is possible without 'qualia', i.e. immediately conscious sensory data.

Michael Tye says: 'Consciousness ... seems *intrinsic* to perceptual experiences and bodily sensations'. This is an opinion we shall shortly dispute. He goes on to say that, unlike visual perception, belief and desire 'may or may not be conscious. They become conscious via the formation of second-order beliefs, or so it seems reasonable to suppose' (1993, p. 35). Here we agree, and just as blindsight seems to preclude the intrinsic consciousness of perception, it fits well with the 'second-order belief' theory of how thoughts become conscious (see below). One can say the blindsight subject *does* perceive the stimuli visually, since they are registered through the affected eyes, but lacks the neural machinery enabling the second-order recognition of that having happened. However, blindsight is obviously not at all an instance of repression, Freudian or otherwise.

The same can be said of all the laboratory attempts to demonstrate repression (Holmes, 1990), whether they claim success or not. The material used to elicit repression typically consists of 'unpleasant' or 'threatening' events such as failure on intellectual tests, or the inclusion of improper words in a list to be learned. But in Freud's view, repression is directed only against guilt-inducing instinctual impulses. It is patently unethical and difficult to persuade subjects to do something guilt-producing in the laboratory (Bower,

1990). Such laboratory tests have no bearing on Freud's concept. The personality dimension of 'repression vs. sensitisation' may seem relevant, in that 'repressors' cope with threat by denying its reality while 'sensitisers' show excessive anxious reaction and exaggerate potential threats (Byrne, 1964). Yet the self-report data are remote from clinical observations and throw no light on the mechanism of the repressive process, our essential concern.

THE DYNAMIC ORIGINS OF REPRESSION

Freud's view that it is for the most part from guilt feelings and the anxiety underlying them that repression arises is implicit in many passages concerning the origin of neurotic symptoms, and is explicit in a number of places. For example, he writes

Repression proceeds from the ego when the latter—it may be at the behest of the superego—refuses to associate itself with an instinctual cathexis which has been aroused in the id. The ego is able by means of repression to keep the idea which is the vehicle of the reprehensible impulse from becoming conscious (1926, p. 91).

The superego, of course, deals in guilt and declares certain impulses 'reprehensible'. It is in fact *only* the psychological representatives of instinctual impulses and their later associations that are repressed—that is, thoughts or images of gratifying such impulses—not merely unpleasant memories. The exception to repression 'at the behest of the super-ego' appears to be primal repression, occurring in the early months and years of life, in the pre-verbal period and before the superego proper had developed, in the Freudian scheme. In 1930 Freud wrote:

At the beginning ... what is bad is whatever causes one to be threatened with loss of love. For fear

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of that loss, one must avoid it ... This state of mind is called a 'bad conscience'; but actually it does not deserve this name, for at this stage the sense of guilt is clearly only a fear of loss of love ... A great change takes place only when the authority is internalized through the establishment of a super-ego (pp 124-5).

The establishment of the superego and the internalisation of authority are one and the same thing. One cannot understand what the superego could consist of if it existed before that internalisation. However, this is not to deny that repression may be a rather late development, or that it is preceded by more primitive defences, as Freud asserts.

In Kleinian psychology more has been learned about 'internalisations' or internal objects since Freud's own discovery that the internalised authority of the superego might be much harsher than a benevolent parent, through processes such as the turning around of aggression on to the person's self. Where Freud distinguishes fear of loss of love from an internalised sense of guilt, the Kleinians describe two ways of relating to the world, the paranoid-schizoid and the depressive, the former supported by anxieties about self-preservation and the latter by object-preserving ones (e.g. Klein, 1930, 1955). For example, the Freudian mechanism of turning round upon the self may be in the interests of different kinds of object relation—e.g. to avoid confronting a parent's perceived fragility, or to spare a parent who evokes love as well as anger. The developmentally earlier paranoid-schizoid mode of relating is especially subject to confused delineation between self and object, as a result of splitting and projection, which distort the perceived character not only of the object but of the self and its relation to the object. These vicissitudes begin in the period in which Freud locates the development of primal repression. We shall return to these matters after examining problems in the concept of repression itself.

THE PROBLEM OF KNOWING SOMETHING IN ORDER NOT TO KNOW IT

The major difficulty emerges from Freud's statement that:

The process of repression is not to be regarded as an event which takes place *once*, the results of which are permanent, as when some living thing has been killed and from that time onward is dead; repression demands a persistent expenditure of force, and if this were to cease the success of the repression would be jeopardised, so that a fresh act of repression would be necessary. We may suppose that the repressed exercises a continuous pressure in the direction of the conscious, so that this pressure must be balanced by an unceasing counter-pressure (1915a, p. 151)

The repressed idea acquires derivatives, i.e. associated ideas, and if these become strongly enough cathected, they must in turn be repressed. This appears to require that the repressing ego be constantly aware of the repressed and its activities in order to maintain its repression. That is, the repressed must be known in order to remain unknown, and this seems a logical impossibility.

Freud passes this off much too lightly. In 'Repression' he states that the idea representing the instinct

should vanish from the conscious if it was previously conscious, or that it should be held back from consciousness if it was about to become conscious. The difference is not important; it amounts to much the same thing as the difference between my ordering an undesirable guest out of my drawing-room (or out of my front hall), and my refusing, after recognizing him, to let him cross my threshold at all (1915a, p. 153)

The trouble is that Freud would still know of the existence of the undesirable guest after he had ordered him out, but 'the repressing ego is supposed not to do so. In the *Introductory Lectures*, Lecture 19, he endeavours

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to evade this problem by the image of the watchman who performs this function: 'he examines the different mental impulses, acts as a censor, and will not admit them into the drawing-room if they displease him' (Freud, 1916-17, p. 295). But it is not a question of their displeasing *him* but displeasing the master who sits in the drawing-room, who would need to have given the watchman a list of the visitors he does not want to see. Once that were done, this fanciful mechanism would encompass after-expulsion, but since we cannot believe in such knowing little internal men as the censor, some believable neural mechanism needs to be found that could perform the same function.

Freud's introduction of the censor as distinct from the conscious must have been motivated by his reluctant awareness that the repressing entity cannot both recognise and repress the unwanted thoughts. But the problem did not disappear when he dropped the censor and the systems of conscious, preconscious and unconscious, and adopted the tripartite structural theory (Freud, 1923). Having loosened the relation between consciousness-unconsciousness on the one hand and the ego, superego and id on the other, he simply falls back on the statement that large parts of the ego and the superego are unconscious as well as the id. Nevertheless, throughout the remainder of his work he retained the doctrine that repression is the work of the ego at the behest of the superego, and its upshot is that the ego is no longer conscious of the repressed material (e.g. Freud, 1933, Lecture 31 and *passim*). To say that this happens 'unconsciously' is just to brush the problem aside, not to solve it. Of course one is unaware one has performed an act of repression, which is only to say it has not been the object of another act of awareness, although why and how that comes about invites inquiry. The old difficulty remains that the *repressing* act, which was the work of the ego, must have included awareness of the object of repression, and must

remain aware of its continued pressure towards expression, yet the ego is no longer aware of that object. Simply to say that the whole business was unconscious makes its operation entirely inexplicable.

Some commentators apparently feel that Freud's introduction of the theory of 'signal anxiety' is a fundamentally different account of repression; however, while it is important in identifying anxiety as the cause rather than the effect of repression, it merely circumvents the problem we are discussing. Thus, Freud writes:

as soon as the ego recognizes the danger of castration it gives the signal of anxiety and inhibits through the pleasure-unpleasure agency (in a way we cannot as yet understand) the impending cathetic process in the id (1926, p. 125)

We sympathise with Freud's admission of inability to understand the process of inhibition. The pleasure-unpleasure principle is not another 'agency'; it is simply the principle that motivates the ego as well as the id. It is not an entity to which the ego can delegate the work of repression while the ego looks the other way. The ego becomes anxious because it recognises (in the case he discusses) the threat of castration contingent on an emerging instinctual impulse, and, driven by the pleasure-unpleasure principle, makes the impulse and the threat unconscious, disguising it with a phobia (Freud, 1926, p. 125). The incompatibility of awareness and repression remains unexplained.

THE DISTINCTION BETWEEN CONSCIOUS AND UNCONSCIOUS MENTAL ACTS

The position adopted in this paper is that the term 'consciousness' can only coherently be used in the sense of the *consciousness of some fact*. To be conscious of something is a relation between a knower and an independently existing known. Despite Freud's

occasionally adopting a representationalist view of some mental processes, his fundamental reliance on the reality principle is precisely in line with our realist position.

This is by no means a radically new view. In the current century it achieved probably its clearest and most uncompromising formulation by the Scottish-Australian philosopher John Anderson (1962), expounded anew by Baker (1986) and Maze (1983, 1991). The general position has received renewed emphasis in the last decade by the mental philosophers D. M. Rosenthal (1993a, b), and, less explicitly, Daniel Dennett (1981, 1991).

However, this position is not always consistently put, because the philosophers in question do not fully embrace the relevant logical point that nothing can have relations that are entirely intrinsic or internal to itself. Rosenthal, for example, accepts that there can be thoughts that 'have themselves as intentional objects'. He says: 'If I think that this very thought is about itself, then it is' (Rosenthal, 1993a, p. 164). However, he also thinks this can be embraced by the higher-order-thought hypothesis. 'On that hypothesis, being conscious is a relational property, and many relational properties allow that an object can bear the relation to itself' (Rosenthal, 1993a, p. 164). But the concept of such one-term relations undercuts the term 'relation' itself. A relation can hold only between two or more independent terms. Some common usages do suggest that an entity can have a relation to itself, for example, 'I hurt myself', 'I am angry with myself', or 'I know myself', but when these matters are examined more closely it will be seen that one part of me hurts, is angered by, or recognises another part, and the relation is extrinsic to those parts. Rosenthal's proposal that 'I can think that I am now thinking this very thought' is merely a verbal paradox, comparable to the paradox of the liar. The two 'thinkings' are separate from one another.

Rosenthal and Dennett and like-minded

mental philosophers do see that the 'mystery of consciousness', defined as consciousness that is intrinsically aware of itself, is too mysterious to be rationally acceptable. However, their approaches to the question of how some mental processes are conscious and some unconscious have virtually nothing to do with Freud's dynamic unconscious. They deal, rather, with epistemological matters and the definition of 'conscious' and 'unconscious'. Dennett, for example, writes:

We have come to accept ... a host of claims to the effect that sophisticated hypothesis testing, memory searching, inference—in short, information processing—occurs within us though it is entirely inaccessible to introspection. It is not unconscious activity of the sort Freud uncovered, driven out of the 'sight' of consciousness, but just mental activity that is somehow beneath or beyond the ken of consciousness altogether (1981, p. 12).

Dennett concerns himself with questions of how thoughts become conscious in the first place, but not with how they are driven out.

The cognitive relation, then, is a unique but non-mysterious one, occurring in physical space-time between particular kinds of organism, or better, between particular processes in particular kinds of organism and situations or events existing independently of that cognitive relation. In our view, this *sui generis* relation is what is referred to indifferently by the whole array of cognitive terms—to know, be conscious of, believe that, perceive, be aware of and so on. If the verb 'to know' seems to claim too much, in implying that the belief is true, we must add that the realist view of cognition denies any claim to indisputable knowledge; every knowledge claim is disputable. But the fact that we do not know anything with certainty does not mean that we do not know anything.

The recognition that being conscious of something is a relationship between at least two independently existing terms, the knower

conscious' (1915a, p. 148). According to the distinction between conscious and unconscious we have advanced, this would mean that although the infant had imagined a situation that would gratify some specific instinctual impulse, it had never admitted to itself that it had had such an image. How could this barrier be established? This is really the primary issue, on which an explanation of after-expulsion depends.

Freud held that cases of after-expulsion 'presuppose the operation of earlier, *primal repressions* which exert an attraction on the more recent situation', i.e. attraction on the associated idea excited by the recent situation (Freud, 1926, p. 94). Thus, the only things repressed because of their intrinsic nature are these original instinctual presentations; whatever is after-expelled is so only through association with the former. It is not merely memories or ideas that are repressed, it is primarily instinctual impulses; the ideas are repressed only because of their potential to recall the forbidden impulses. Thus, the concept of primal repression is central and fundamental to Freud's theory of repression. This centrality has not been sufficiently recognised, perhaps because of Freud's introducing primal repression as a hypothetical construct, whereas after-expulsion or 'repression proper' is an observable phenomenon.

The expression 'instinctual impulse' we take to mean the attachment of an instinctual drive to a kind of gratifying behaviour, to a person or to a particular behaviour with a person. An instinctual drive as such is not subject to global repression; aggression, for example, is permitted against enemies of the peace, and sexuality is permitted with legitimate objects and in legitimate practices. The instinctual impulses subject to primal repression perhaps should not be called 'forbidden', because that relates too much to superego pressure. Freud asserted:

There is a danger of overestimating the part played in repression by the super-ego ... At any rate, the earliest outbreaks of anxiety, which are of a very

intense kind, occur before the superego has become differentiated. It is highly probable that the immediate precipitating causes of primal repressions are quantitative factors such as an excessive degree of excitation and the breaking through of the protective shield against stimuli (1926, p. 94).

Yet in the next paragraph he says something which seems to militate against this use of the protective shield concept: 'the protective shield exists only in regard to external stimuli, not in regard to internal instinctual demands'. But it is precisely the latter that are at issue. These cause intense anxiety if they threaten loss of love, or fear of mutilation, or some unimaginable catastrophe, so perhaps it is such imagined externally arising consequences that fracture the postulated protective shield. Referring to little Hans, he says 'The anxiety belonging to the animal phobias was an untransformed fear of castration. It was therefore a realistic fear, a fear of a danger which was actually impending or was judged to be a real one' (Freud, 1926, p. 108). Frequently he makes clear that the ego's anxiety leading to repression is anxiety about the consequences of a dangerous instinctual impulse forcing its way into action and not the effect of a sudden flood of just any sort of strong external stimuli.

For Freud, what distinguishes primal repression is, as we saw above, that primarily repressed impulses have never been conscious. He does not offer any explicit account of this; he merely asserts it as a fact. Subsequent commentators have been inclined to ascribe this postulate to the early appearance of primal repression, pre-verbally, and relate this to the proposed necessity of verbal associations for recall. The evidence quoted above concerning pre-verbal self-awareness effectively disposes of that particular explanation of the supposed special feature of primal repression, that it is said to occur without the repressed material ever having been conscious, and in any case Freud himself made reservations about the need for verbal residues.

Freud has been able to show that the primal repression is an excessive thing through of it (1926, p. 94).

Freud says something against this concept: 'the infant in regard to the transition to internal objects is precisely the cause of intense love, or fear of a possible catastrophe, imagined or real, that fracture the ego. Referring to the ego belonging to the transformed state, a realistic ego was actually a real one' by which he makes reference to the consequences of the repressing effect of a strong

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This, then, is a particular form of the general problem of the theory of repression—that of having to know something in order not to know it. How can the infant mind defend itself against impulses if it has never been aware of their existence or consequences?

Freud's first attempt to evade this paradox occurs in *The Interpretation of Dreams* (1900). He proposes that for the first few months of life the infant mind operates only on the primary process, or hallucinatory gratification. The secondary process, reality-testing, takes some time to develop. In consequence of the belated appearance of the secondary processes, the core of our being, consisting of unconscious wishful impulses, remains inaccessible to the understanding and inhibition of the preconscious (Freud, 1900, p. 603). But the only explanation given is that the primary process is unconscious by nature. Consciousness, presumably meaning self-consciousness, must await the appearance of the secondary process. Even then, the primary process 'remains inaccessible to the understanding' of the preconscious. This suggests that the two kinds of psychical process are fundamentally different in nature. But if that were so, one cannot understand how the preconscious could ever recognise and guard against the emanations from the unconscious, if they were indeed 'inaccessible to its understanding'.

Despite these logical problems relating to the concept of consciousness, the crucially important point is that for Freud it is instinctual impulses that are the objects of primal repression. Everything else that becomes repressed is just auxiliary to them, acquiring guilt by association.

For object-relations theory also, the foci of repression are particular instinctual impulses, although the tendency is to de-emphasise that biological substrate and concentrate instead on the relationships with other persons with whom those instinct-based desires engage (Maze, 1993). Thus, Klein (1930) writes:

The earliest defence set up by the ego is directed against the subject's own sadism and the object attacked, both of these being regarded as sources of danger. This defence is of a violent character, different from the mechanism of repression (1930, p. 249).

These early violent defences became known as splitting and projective identification.

THE ORIGIN OF REPRESSION IN INSTINCTUAL CONFLICT

That repression in Freud's view arises as a consequence of conflict between instinctual impulses is the key to its dynamics, if not to the details of its mechanism. In 'Repression' Freud states that we learn from clinical experience

that the satisfaction of an instinct which is under repression would be quite possible, and further, that in every instance such a satisfaction would be pleasurable in itself; but it would be irreconcilable with other claims and intentions. It would, therefore, cause pleasure in one place and unpleasure in another. It has consequently become a condition for repression that the motive force of unpleasure shall have acquired more strength than the pleasure obtained from satisfaction (1915a, p. 147).

It is anxiety arising from the perceived potential for pain that causes the repression, primal or otherwise. According to Freud's dynamic view of mental structure, the infant would have come to believe that the gratification of one instinctual impulse would bring about the frustration of another, or several vital others, as might follow from the event 'loss of mother', for instance. The alarm arising from the instinctual drives threatened with frustration—i.e. the ego-instincts—establishes the affective block that prevents any *future* activation of the dangerous instinctual presentation from becoming conscious. But what about the preceding

presentations, which must have been conscious if the infant were to think their gratification would bring disaster?

Freud's assertion that in primal repression the repressed material has never been conscious is quite incompatible with his view of the dynamics of repression, is given no theoretical justification and should be abandoned. The term 'repression' would then be reserved for the impulses whose gratification, it is believed, would bring disastrous retribution. They are focal in that they motivate all later repressions—'repression proper' or after-expulsion.

The question remains, how can the knowing entity continually deny the existence of something while continually maintaining a watch against it? When the problem is expressed in that way, as incompatible statements about ongoing cognitive processes, its solution is impossible by definition. The only recourse, in our view, is to try to construct a neurological model, taking account of prevailing neurological understanding, which could bring about the effects in question deterministically.

NEURAL CORRELATES OF CONSCIOUS AND UNCONSCIOUS MENTAL ACTIVITY

The arguments above concerning the illogicality of immediately self-conscious mental acts militate against the conception frequently found in speculations about brain function that 'higher cortical centres', when activated, yield 'conscious awareness' because the notion of conscious—i.e. self-conscious—awareness is unacceptable. One example of that kind of thinking occurs in Kissin's (1986) proposals about hierarchical structures in the brain.

The term conscious brain activity contains in itself certain fundamental assumptions. For one, it is assumed that each event in the sequence has been cleared by the combined system of attentional, perceptual recognition, memory retrieval and mental

set mechanisms. It is also clear that there are different modes of conscious mental activity ranging from that of essentially external origin (conscious perception) to that involving both the external and the internal (conscious recognition) to the predominantly internal (conscious thought). In each case the individual is aware of his thoughts and as a result of the involvement of his entire self-system is in control of them (1986, p. 143).

His qualification of each kind of activity by the term 'conscious' indicates his view that they are intrinsically self-aware, as if this self-illumination were characteristic of the activation of certain kinds of nerve cell.

Rather than this, what would be required is the existence of nervous structures supplied with afferent nerve fibres enabling them to register the existence of cognition-specific states in other nerve structures—the individual information-bearing states set up by the person's perceptual reactions to external or internal events. That neural registration would underlie the becoming conscious of the previous perceptual reaction in question, in that the becoming conscious must be a second act additional to the previous perception, and so must be mediated by a second nervous event.

It is a reasonable assumption that any specific mental act will be mediated by a distinctive neural process peculiar to it, and that a reminiscence of that mental act includes some form of reactivation of that neural process. It should be understood that in discussing possible neural processes, the term 'information' in 'information-bearing' means a unique pattern of neurophysiological events. This is distinguished from the cognitive sense of 'information' as something known. It is not as if these neural traces are scanned and interpreted by some central cognitive scanner. Rather, the excitation of the neural trace is itself the organismic or 'subject' term that sustains the cognitive relation to the object term. The reactivation of a previously laid-down neural trace would not be identical with the original inscription,

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as that would result in the hallucination that the same external event was recurring; it would have to include some additional neural registration of the spatio-temporal context. For our purposes it is not necessary to speculate whether that neural process might be an event in a specific set of neurones or some specific pattern of activation that might take place from time to time in different neurones, as long as it were distinctive of the mental act in question.

Let us use the non-committal term 'en-gram' for it. It would meet the formal requirements of primal repression if the flood of anxiety immediately consequent on any activation of an engram mediating an instinctual presentation should set up a neural condition such that no neural impulses could pass directly from that engram to any further neural process capable of registering that the engram existed—registering it in whatever way underlies becoming conscious that the dangerous mental act had occurred. The precondition of this anxious reaction would be the memory of a previous threat, real or imagined. This neural block is conceived as being automatically set up by the contiguous anxiety rather than as the result of a purposive, informed reaction; in that way the problem of having to know in order not to know would be avoided. This proposal elaborates one by Rosenblatt & Thickstun, who say that neural irradiation making 'subjective consciousness' possible may be

subject to inhibition through other neural circuits or through some other biochemical alteration in conductivity effected when the previous irradiation to conscious cortical 'centres' was accompanied by stimulation of certain affect systems (1970, p. 276).

If the primally repressed material had never been conscious, as Freud contends, such 'previous irradiation to conscious cortical "centres"' would not have occurred, and so the condition for the neural or biochemical inhibition would be lacking. It seems

that the Kleinian proposals about these very early defences may offer a more workable solution—that is, that what the infant resorts to is a mixture of splitting and projection. As we said above, the effect of these is to locate the dangerous feelings outside the mind. If such mechanisms could be articulated, it might be as: 'It was not my wish, it was hers', or 'I didn't wish it about her, it was about the bad one'. If such beliefs could be held with conviction because of reality-principle weakness, then the repressive mechanism saying 'I have never wished that' would not be necessary.

However this early cancellation is accomplished, once the affective blocking is in place any subsequent perception potentially evoking reminiscence of the dangerous instinctual presentation or directly exciting a recurrence of it, would, as with all memory, arrive at the original engram and thus be inhibited from progressing from it to the cortical levels which make consciousness of the event possible. Thus, the image of and wish for the forbidden gratification could occur repeatedly, and the person remain unconscious of it.

Some neurological research indicates that some such mechanism is conceivable in terms of known brain functions. Relevant information was collated by Kissin (1986). He finds the activation and deactivation of the reticular activating system to be implicated in repression and its manifestations.

The argument for the critical role of the alerting system in repression runs as follows. The difficulty that a percept or memory has in entering awareness is in part a function of the intensity of its negative emotional charge; the latter is influenced by the general level of activation in the brain. Thus the more active the norepinephrine-driven RAS alerting system, the higher the level of arousal and the greater the decathecting repressive effect at the subcortical level (1986, p. 340).

The relevance of this subcortical decathecting repressive effect to our proposal above is plain. Kissin continues:

Since the ability of a negative emotional charge to elicit a defensive reaction is related to its ability to produce arousal (the physiological signal of threat), then in states of lower activation (low arousal states) this mechanism will have been relatively deactivated. In such circumstances, all threatening engrams should be less threatening, if only because the organism is not physiologically in a state to register strong emotional responses. Under these latter conditions, the ready passage of decathected engrams from either the right or left hemisphere into impaired awareness seems highly plausible (1986, p. 341).

That is, in altered states of consciousness or REM sleep, some repressed material can become conscious, as fantasies or dreams.

An apparent paradox is that REM sleep is a high-arousal condition, yet seems most capable of allowing deeply repressed material to find some expression. Kissin proposes the paradox is resolved if in the waking condition the hippocampus with its inhibitory or 'gating' role is stimulated noradrenergically but in sleep is under cholinergic stimulation.

Within that formulation, the hippocampus under noradrenergic stimulation inhibits the entire inner world ('repression' of the unconscious) and those portions of the external world that are not being attended (Kimble, 1968). With cholinergic activation the hippocampus would still be very active

but would be inhibiting the entire outer world and not the inner (release of repression). In both instances the inhibitory activity of the hippocampus would be high ... but the directions of inhibition would be antithetical (Kissin, 1986, pp. 342-3).

Plainly, much more information about the locus of 'engrams', and about neural functioning as affected by various neurotransmitters, would be required to show what the detailed structures mediating primal repression and after-expulsion might be, and that is far beyond our ambit. The essential point about any such working mechanism, however, is that the neural inhibition must take place at a subcortical level, i.e. without the

necessity for a percept to find its way to the cortex, where its arrival could be registered, so that it would then have to be repulsed and reconstituted to lower levels (the unconscious). This avoids the paradox of knowing in order not to know.

Freud rejected the view that unconscious processes are merely neurological, rather than psychical—that is 'that they correspond to residues of somatic processes from which what is psychical can once more arise' (1915b, p. 167). His reasons do not apply to our proposal. He says that 'this objection is based on the equation of what is conscious with what is mental'. Clearly our account entirely accepts the concept of mental processes of which one is not conscious, whether they are preconscious or dynamically unconscious. But it is difficult to imagine an ongoing, active unconscious *thought* comparable, say, to the ongoing conscious rehearsal of some memory. Would it be continuously, repetitively expressed in some representational symbolism throughout the years of its existence?

A more plausible explanation is that the perception of any situation sets up a persevering neural condition ('engram') specific to that situation, and that the knowledge of the situation consists solely of the existence of that engram in its relation to that situation. When another instance of the situation is perceived, then the afferent process constituting the new perception arrives at the existing engram. The reaction to the perceived situation will now be affected by whatever associated engrams have accrued to the original registration—that is, our reactions to anything are changed by our acquired beliefs about it and its consequences. The neural processes will pass to different motor channels; our original instinctual response, if that is in question, cannot simply run off but will be deflected. That is a neurological re-phrasing of Freud's account of how the pleasure principle is modified by the reality principle.

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over and above neural functioning—that is, if we are to avoid the unnecessary and insoluble problems of mind-body dualism, as Freud wished—then we can describe these behavioural vicissitudes by using either the language appropriate to neural processes or that appropriate to belief processes, with no difference of substantive meaning. Of course, in view of the insuperable practical difficulty of monitoring the minute details of a living individual's neural activity, the language of belief processes will be the only useful one for the foreseeable future. We have taken this detour into neurophysiology to show that there are imaginable mechanisms that would provide a workable account of how repression can occur, without the impasse encountered if it is thought of solely in terms of motivated cognitive confrontations.

AFFECTIVE AND IDEATIONAL RELATIONSHIPS OF REPRESSED MATERIAL

The bearing of primal repression on after-expulsion is determined by the network of cognitive associations into which the primally repressed material enters. It is a commonplace of cognitive science that every item of information we possess has its place in such a network; every item has links to many others and each of those in turn to many others, and so on (cf. Anderson, 1983; Rumelhart et al., 1986). In fact it would be possible to find some path of association, however circuitous and improbable, from everything we know to everything else we know. Consequently there must be points in these manifold chains of associations at which the connection with the primally repressed material becomes so attenuated that the associated items beyond those points escape after-expulsion; otherwise, simply everything would be subject to repression. In this way the repressed wishes can give rise to prejudiced judgements, motivated 'mistakes' etc. The associative connection between the currently perceived situation and the repressed

material is not recognised. Consequently the repressed impulses can seize the current situation as suitable for their partial, devious gratification

Consider the network of beliefs underlying some of the symptoms of Freud's famous patient, the Wolf Man (1918). As a young man and for many years later he fell compulsively in love with a series of female servants. This was occasioned by his finding them on their hands and knees, scrubbing or polishing the floor. These amorous feelings were of course entirely conscious to him, though he would also come to realise the women were unsuitable objects and his attachment was unrealistic. What was unconscious was that they reminded him of his mother as she was observed by him, aged about 18 months, in the primal scene with his father. According to the lengthy analysis of his wolf dream at the age of 4, she had been in a similar position, her buttocks elevated, during their intercourse. His observation of this and the feelings it aroused were primally repressed, for the following complicated reasons. He saw that both parents were at a pitch of pleasure, which he would have liked to share. He would have liked to do the same thing to his mother, but she belonged to his powerful father. Also he would have liked his father to do the same exciting thing to him, but the prospect was terrifying, because, as he believed he had seen, his father had made a hole in his mother and would make a hole in him, destroying his genitals as his mother's had been destroyed. The intense anxiety resulting from this set up the primal repression, the affective blocking of recall. However, the sight of a kneeling housemaid years later elicited floods of libido because that position was similar to his mother's, though he could not now recall it. For the Wolf Man, this sexual part of the affect was conscious but its connection with his mother was not. The social position of the housemaid, subservient to him, was sufficiently unlike his mother's, a well-bred lady dominant over him, to pass outside the

bounds of similarity that would have caused repression of libidinous attachment.

Freud points out that ideational content and affect can become dissociated. Either could enter consciousness without the other. Thus, if the Wolf Man had accepted Freud's interpretation of his incestuous desires at a merely intellectual level, as Freud might describe it, that would mean that a *new* neural registration of the possibility of incestuous wishes had been set up, without connection with the original one and its affective charge (cf. Freud, 1940, p. 160 for a similar conception). The thought of incest could then become conscious, without the accompanying affect.

What becomes apparent about the relation between primal repression and after-expulsion, according to our schema, is that the condition of being repressed spreads out, as it were, from the primally repressed material to the after-expelled material, rather than being imposed on the latter by the conscious ego. The associated perceptions are not so much expelled from consciousness as captured under the umbrella of the affective blocking mechanism as soon as the associative links are activated.

The fact that direct recognition of the unconscious instinctual presentations and their closely associated beliefs had been made impossible may account for the characteristics Freud attributes to unconscious mental processes. He sums these up as '*exemption from mutual contradiction, primary process* (mobility of cathexes), *timelessness*, and *replacement of external by psychological reality*' (1915b, p. 187). The general point is that the subsequent development of reality testing and general education could not be brought to bear on the unconscious beliefs. The processes of accommodating old beliefs to new information, and assimilating new beliefs to the old, could not occur with the repressed material. In order for that to happen, engrams of old beliefs would need to be scanned in order for new evidence to be integrated with them or cause them to be discarded, and this

would be impossible because of the affective neural block established between the dangerous instinctual presentation and the engram-scanning device. Thus, for that body of beliefs, contradictions would not be recognised, the inexorability of time and the ineffectuality of wishing would remain unknown to the repressed impulses.

Because of their isolation, these instinctual presentations accrue networks of associations based on perceived similarities, identities and causal relations that to conscious reflection would appear bizarre, primitive, groundless. Because of this some of them are not captured by the affective blocking and appear in dreams, fantasies, neurotic symptoms, distorted object relations and so on. An image sometimes advanced is that of the unconscious as a separate, devious and treacherous mind ramifying its lusts in the darkness, finding diabolically clever ways of evading the watchful 'censor' and thus disrupting rational mental life. Our model of the mechanism of repression, while it may lack the dramatic impact of such ideas, offers, we believe, an understanding of the psychical lacunae which led to Freud's discovery of the unconscious, without the nagging self-contradiction in his concept of repression. The *dramatis personae* of the internal struggle are reduced to the conflicting desires of one mind, riven as it may be by anxiety-driven disruptions of internal communication.

TRANSLATIONS OF SUMMARY

L'auteur de cet article accepte la réalité du phénomène de refoulement et considère, qu'à lui seul, il explique de nombreuses sortes de pathologie. Néanmoins, l'hypothèse freudienne du mécanisme de refoulement selon laquelle le moi se protège constamment contre la prise de conscience des impulsions refoulées crée un problème. Il serait pour cela nécessaire que le moi demeure conscient du refoulé. Un acte mental ne devient conscient que lorsqu'il est l'objet d'un second acte mental, et non à travers la possession d'une conscience intrinsèque. Certaines barrières doivent être érigées pour empê-

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cher ce second acte mental. L'auteur compare le concept freudien de refoulement primaire avec les concepts kleinien de clivage et de projection qui semblent éviter certaines des difficultés du concept freudien. L'auteur pense que les blocages neurologiques, résultant d'une bouffée initiale d'angoisse, sont érigés entre les enregistrements neurals de certaines images de gratification instinctuelle et les autres organisation neurales qui pourraient enregistrer l'apparition de ces images. Ces dernières demeurent inconnues bien qu'affectant le comportement. Les recherches neurologiques suggèrent qu'un tel mécanisme est possible.

Die Autoren dieses Artikels akzeptieren, daß es das Phänomen der Verdrängung tatsächlich gibt und meinen, daß es für sich allein viele Formen von Psycho-pathologie erklärt. Freud nahm in seinem Beitrag zum Mechanismus der Verdrängung an, daß das Ich ständig auf der Hut ist, den verdrängten Impuls nichtbewußt werden zu lassen; diese Annahme schafft aber ein logisches Problem. Dies würde nämlich bedeuten, daß das Ich weiterhin von etwas weiß was verdrängt ist. Ein seelischer Akt wird nur dadurch bewußt, daß er das Objekt eines zweiten seelischen Aktes wird, nicht dadurch daß er in sich den Charakter der Bewußtheit trüge. Um diesen zweiten seelischen Akt zu verhindern, muß eine Schranke errichtet werden. Freuds Konzept der Urverdrängung wird mit Kleins Konzepten von Spaltung und Projektion verglichen; diese scheinen einige von Freuds Schwierigkeiten zu vermeiden. Nach der Vorstellung der Autoren werden als Folge ursprünglicher Angstaussbrüche neurologische

Blockierungen errichtet, die zwischen die neurale Registrierung bestimmter Bilder von Triebbefriedigung und jene anderen neuronalen Organisationen, die das Auftreten solcher Bilder registrieren könnten, treten. Die Bilder bleiben auf diese Weise unbewußt, beeinflussen aber weiterhin das Verhalten. Neurologische Ergebnisse legen nahe, daß ein derartiger Mechanismus möglich ist.

Los autores de este artículo aceptan la realidad del fenómeno de la represión y consideran que él solo explica muchos tipos de psicopatología. Sin embargo, la hipótesis de Freud en su esbozo acerca del mecanismo de la represión, según el cual el Yo se protege continuamente para que el impulso reprimido no se haga consciente, crea un problema lógico. Esto requeriría que el Yo se diera cuenta de qué es lo reprimido. Un acto mental se convierte en consciente, únicamente al ser objeto de un segundo acto mental y no porque posea una conciencia intrínseca. Alguna barrera debe establecerse para impedir este segundo acto mental. El concepto de Freud de represión primaria se compara con los conceptos kleinianos de escisión y proyección que parecerían evitar algunas de esas dificultades. Se hace la hipótesis de que, como resultado de estallidos de ansiedad iniciales, se establecen bloqueos neuro-lógicos entre los registros neuronales de ciertas imágenes de gratificación instintiva y otras organizaciones neuronales que podrían registrar la aparición de dichas imágenes. Estas últimas permanecen así desconocidas pero siguen afectando a la conducta. Los descubrimientos neurológicos sugieren que es posible un mecanismo de ese tipo.

REFERENCES

- ANDERSON, J. (1962). *Studies in Empirical Philosophy*. Sydney: Angus & Robertson.
- (1983). *The Architecture of Cognition*. Cambridge, MA: Harvard Univ. Press.
- BAKER, A. J. (1986). *Australian Realism*. Cambridge: Cambridge Univ. Press.
- BOWER, G. H. (1990). Awareness, the unconscious, and repression: an experimental psychologist's perspective. In *Repression and Dissociation: Implications for Personality Theory, Psychopathology, and Health*, ed. J. L. Singer. Chicago: Chicago Univ. Press, pp. 209-231.
- BYRNE, D. (1964). Repression-sensitization as a dimension of personality. In *Progress in Experimental Personality Research. Vol. 1*, ed. B. A. Maher. New York: Academic Press, pp. 169-220.
- DENNETT, D. C. (1981). Introduction to *The Mind's I*, ed. D. R. Hofstadter & D. C. Dennett. Brighton: Harvester Press.
- (1991). *Consciousness Explained*. Boston: Little, Brown & Co.
- FAGAN, J. F. (1973). Infants' delayed recognition memory and forgetting. *Exper. Child Psychol.*, 16: 424-450.
- FREUD, S. (1900). *The Interpretation of Dreams*. S.E. 4-5.
- (1915a). Repression. S.E. 14.
- (1915b). The unconscious. S.E. 14.
- (1916-17). *Introductory Lectures on Psycho-Analysis*. S.E. 15-16.
- (1918). From the history of an infantile neurosis. S.E. 17.
- (1923). *The Ego and the Id*. S.E. 19.
- (1926). *Inhibitions, Symptoms and Anxiety*. S.E. 20.

- (1930) *Civilization and its Discontents*. S.E. 21.
- (1933) *New Introductory Lectures on Psycho-Analysis*. S.E. 22.
- (1940) *An Outline of Psycho-Analysis*. S.E. 23.
- HOLMES, D. (1990) The evidence for repression: an examination of sixty years of research. In *Repression and Dissociation: Implications for Personality Theory, Psychopathology and Health*, ed. J. L. Singer. Chicago: Chicago Univ. Press, pp. 85-102.
- JACOBY, L. L. & WITHERSPOON, L. (1982). Remembering without awareness. *Canadian Psychol.*, 32: 300-324.
- JONES, B. P. (1993) Repression: the evolution of a psychoanalytic concept from the 1890's to the 1990's. *J. Amer. Psychoanal. Assn.*, 41: 63-93.
- KISSIN, B. (1986). *Conscious and Unconscious Programs in the Brain*. New York & London: Plenum.
- KLEIN, M. (1930). The importance of symbol formation. In *Contributions to Psycho-Analysis, 1921-1945*. London: Hogarth, 1975, pp. 236-250.
- (1955) On identification. In *New Directions in Psycho-Analysis*, ed. M. Klein et al. London: Maresfield Library, 1977, pp. 309-345.
- MAZE, J. R. (1983). *The Meaning of Behaviour*. London: George Allen & Unwin.
- (1991). Representationism, realism and the redundancy of mentalese. *Theory & Psychol.*, 1: 163-185.
- (1993) The complementarity of object-relations and instinct theory. *Int. J. Psychoanal.*, 74: 459-470.
- OLSON, G. M. & STRAUSS, M. S. (1984). The development of infant memory. In *Infant Memory*, ed. M. Moscovitch. New York: Plenum.
- ROSENBLATT, A. D. & THICKSTUN, J. T. (1970). A study of the concept of psychic energy. *Int. J. Psychoanal.*, 51: 265-278.
- ROSENTHAL, D. M. (1993a). Higher-order thoughts and the appendage theory of consciousness. *Philosoph. Psychol.*, 6: 155-166.
- (1993b). Thinking that one thinks. In *Consciousness, Vol. 2*, ed. G. Humphreys & M. Davies. Oxford: Blackwell, pp. 197-223.
- ROVÉE-COLLIER, C. K. & FAGAN, J. W. (1981). The retrieval of memory in early infancy. In *Advances in Infancy Research, Vol. 1*, ed. L. P. Lipsitt. Norwood, NJ: Ablex, pp. 225-254.
- RUMELHART, D. L. ET AL. (1986). *Parallel Distributed Processing: Explorations in the Microstructure*. Cambridge, MA: MIT Press.
- STERN, D. (1985). *The Interpersonal World of the Infant*. New York: Basic Books.
- TYE, M. (1993). Blindsight, the absent qualia hypothesis and the mystery of consciousness. In *Philosophy and Cognitive Science*, ed. C. Hookway & D. Peterson. Cambridge: Cambridge Univ. Press, pp. 19-40.
- WEISKRANTZ, L. (1986). *Blindsight*. Oxford: Oxford Univ. Press.

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(MS. received 8/11/95)
(Revised MS. received 27/5/96)

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In insisting on the necessity of ^{as cause?} neural events, I am not disputing that mental processes are ~~part~~ part of the natural world. But the knowledge rela be between brain & the physical event known does not exist without the physical process. ^{It} ~~It~~ demands at least two terms. ~~The~~ "externalist" way of ~~view~~ seems to me to ignore that. It becomes a case of ~~of~~ causation from a distance. The external object ~~is~~ for it the object known; it does not of itself project ~~anything~~ a ~~mental~~ mental pulsation, vibration or subleak, to the organism. Not enough to say the subject term is "the person". Much evidence ^{brain is} ~~is~~ essential. "Action at a distance" is simply a convenient bit of ~~physics~~ ~~sticking~~ ~~paper~~ ~~or~~ ~~some~~ ~~sort~~ ~~of~~ ~~superstition~~.

Psychoanal., 74:

1984) The development of infant memory. Plenum.

J. T. (1970). A theory of energy. Int. J.

Order of thoughts and consciousness. Phil.

Links. In Confrontations & M. 97-223.

W. (1981) The infant. In Ad- v. 1, ed. L. P. 225-254.

Parallel Distributed Microstruc- ture.

World of the

sent qualia hypothesis. In ed. C. Hook- 2000. Cambridge Univ.

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Contents of Volume 77

Even to say that O's beliefs abt the effects of his or her thoughts in a particular situation plays an essential role in their occurrence or non-occurrence, & determines the difference between accidental & non-accidental actions, obviously allots a causal role to O's mental process. In 1980 I felt that ^{the ground of} this distinction not widely recognized. It also provides a clear explanation of the difference of actions commonly thought of as intentional or self-determined. Thus ^{this} is part of the foundation of cognitive determinism.

Thus I should exempt my view of that from the charge of epiphenomenalism.

The important question at hand, however, is to show how "intentional causation" affects physical process. Does non-accident? must begin with motor nerve impulses. How can mental process liberate knowing the environment get into the motor system?

The alternative explanation offered by the non-physical approach to mental causation simply asserts that the cognitive realm of knowing certain facts can itself form part of the cause of relevant behavior without the interposition of neurophysiology.

Published every two months World List of Abbreviations Int. J. Psychoanal. ISSN 0020-7578

Printed in Great Britain by the University Press, Cambridge