

**Westen, D.** (1997). Towards A Clinically And Empirically Sound Theory Of Motivation. *Int. J. Psycho-Anal.*, 78:521-548

The author outlines a theory of motivation that attempts to integrate psychoanalytic theory with current psychological thinking and research. Emotions and other sensory feeling states are evolved mechanisms for channelling behaviour in directions that foster adaptation. The avoidance of unpleasant states and pursuit of pleasant ones leads to goal-directed mental and behavioural processes, including defences and compromise formations. Affects provide a flexible motivational mechanism in humans, as they become associated with representations of perceived, feared, wished-for, or otherwise valued states through the interaction of environmental events and highly specific naturally-selected biological proclivities. This reconceptualisation of motivation points towards a resolution of a contradiction in Freud's models of affect and motivation between a theory of drive-reduction and a theory of affect regulation, and of the apparent contradiction between motivational models that emphasise either sexual desire or relational needs. The model also has implications for the theory of transference, since it suggests that neutrality is not the feature of the analytic situation that evokes meaningful transference processes.

Psychoanalysis centers on what the patient cares about, is concerned with, and by a short step away is in conflict about. To the extent that an analytic hour is about that, it is relevant. And conversely to the extent that it is not about anything about which the patient cares, it is shallow and ineffectual (Rangell, 1967, p.185).

The theory of motivation has always been both the heart and the Achilles' heel of psychoanalysis. What Freud's theory of drives offered above all else was an understanding of unconscious motivation and processes of conflict and compromise, a linking of motivation to the body, and a theory of the way motives can be transformed from one form to another. No other theory within or without psychoanalysis has done this as well. Yet from the start, Freud's theory of motivation engendered resistance, in part because humans are not fond of knowing about themselves, and in part because even great thinkers see the world idiosyncratically and from the vista of their own times. Freud's dual-instinct theory was, like all cognitive constructions, a complex admixture of the perceiver and the perceived.

Within psychoanalysis, theorists from nearly every school of thought generally agree that Freud's dual-instinct model requires substantial modification (e.g. Brenner, 1982; Holt, 1976, 1985; Kernberg, 1992; Kohut, 1977; Lichtenberg, 1989; Sandler, 1987; White, 1960). The reasons are many, and familiar to most readers: the nineteenth-century scientific assumptions embedded in it, the unlikely hypothesis of a death instinct (one of the few concepts proposed by Freud that was rejected by most of his followers), the ambiguous place of affect, the failure to capture adequately the motives for relatedness that bring people together, and the

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absence of several motives that seem important in humans, such as the desires for mastery and knowledge, self-esteem, safety, and meaning in life.

Although the diagnosis seems clear, an adequate prescription for the problem has not been forthcoming, as no alternative theory of motivation has emerged that has received widespread acceptance. One attempted resolution has come from object-relations theories, which have largely desexualised the libidinal drive. Fairbairn (1952) perhaps most clearly enunciated an object-relational alternative when he proposed that libido is object-seeking, not pleasure-seeking. According to this view, which distinguishes most contemporary object-relations approaches from other approaches in psychoanalysis, people need relationships, not orifices. That other people have orifices is a lucky feature of human anatomy but not their central motivational pull. For Kohut (1971), people need self-esteem and a sense of cohesion. Although Mitchell never directly offers a relational view of motivation (Mitchell, personal communication, 1994), implicit in his work is the assumption that what humans need is a network of important relationships and a sense of meaning (see Mitchell, 1993). As many have pointed out (e.g. Kernberg, 1992), these theories have tended to have difficulty accounting for aggression, and as we shall see, they have often substituted one goal that humans pursue (connection to others) for another (sexual desire).

Kernberg (1975, 1984, 1992) has offered a hybrid approach that straddles object relations and classical drive theory, by equating pleasure with libido and displeasure with aggression. He argues that affects become organised over the course of development into two superordinate drives, defined by their affective valence. Affects, which are initially global and diffuse, become linked through experience with self- and object-representations. Through psychosexual development, various forms of sexual gratification (oral, anal, and genital) become organised into a superordinate libidinal drive, united by their common element of erotic pleasure.

Although this model eliminates some of the problematic assumptions of Freud's drive theory, it does so in part by glossing over some inherent differences and contradictions between an affect theory and a drive theory of motivation. Firstly, not all pleasure is libidinal in the sexual sense. Freud wrestled with this paradox throughout his career, and ultimately (1940) ascribed to the ego what is essentially a motivational function (normally the domain of the id), the attempt to maximise pleasure and minimise pain. In so doing, he was implicitly undoing his theory of libido, which equated pleasure with sexual pleasure, and his structural model, which located wishes for pleasure in the id, not the ego. Kernberg is caught in the same dilemma because of his effort to preserve Freud's dual-instinct theory while moving to a more clinically-near theory of affect.<sup>1</sup>

A second and parallel problem with Kernberg's formulation is that not all unpleasant emotion is aggressive. In fact, factor-analytic studies have typically found that rage and anger (affects related to aggression, which Kernberg now tends to use as a parallel to sexual excitement) do not load on the same negative affect factor as sadness, fear, anxiety, shame, guilt, and other negative affects such as remorse (see e.g. Watson & Clark, 1992; Watson & Tellegen, 1985; Westen et al., in press). In other words, anger does not tend to correlate highly with other unpleasant emotions

and is not the core of negative affective experience. From a psychoanalytic perspective, one of the reasons for this should be clear: aggression can be as much a

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1 The same problem has been endemic to affect theorists ranging from Rangell (1967) to Spezzano (1993, p. 78).

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source of pleasure (in sadism and revenge fantasies) as unpleasure, and it is only one possible response to feeling anxious, unhappy, guilty, ashamed etc.

Lichtenberg (1989) has proposed an alternative theory of motivation, arguing that human motivation involves five motivational systems, including physiological regulation, attachment, exploration/assertion, withdrawal or antagonism in response to aversive events, and sensual/sexual pleasure. His work provides a substantial move forward from a dual instinct theory, which seems unlikely to account for the range of motivation in a complex species such as ours, and proposes a set of motives that covers considerably more terrain and is grounded in empirical as well as clinical observation.<sup>2</sup>

At the same time, however, he, too, offers a somewhat mixed model, since his last two motives, like Kernberg's, essentially map an affect theory on to a modified theory of sex and aggression. The seeking of pleasure (his fifth motive) is, like Freud's ego motives, really inherent in the first three of his motives, as is the avoidance of unpleasure (his fourth motive).<sup>3</sup> As in Freud's theory, the question again is whether the regulation of affect states (seeking pleasure and avoiding pain) is an underlying mechanism involved in all motivation—for sexual gratification, aggression, attachment to others, exploration, self-esteem, and the like—or whether it constitutes a separate and parallel motive system. Lichtenberg also derives his five motives from infancy research and explicitly assumes that all motives must have their origins in infancy. This seems an idiosyncratic assumption, which one would neither make for cognitive processes (since many aspects of adult cognition are not found in infants) nor for affective processes (since some affects, such as guilt, are not present in infancy). In addition, Lichtenberg fuses his motivational model with a somewhat idiosyncratic and much less clear theory of self, as when he argues that 'the clinical findings of any psychoanalytic theory should be explainable through the five motivational systems and the cohesiveness of the self' (Lichtenberg et al., 1992, p. 4).

Several other theorists, particularly those, like Lichtenberg, influenced by infancy research, have turned to affect to account for motivation (e.g. Basch, 1976; Bowlby, 1969; Emde, 1989; Sandler, 1987, 1989; Spezzano, 1993), and in so doing have brought theory closer to clinical data. Clinically, we go where the affect is (or where it should be but is missing) because we know that in the affect (and in conflicting feelings towards the same object) lies the motivation to pursue, avoid, or create compromise solutions.

Moving from drive to affect theory, however, opens up a number of difficult questions. Freud's affect theory has always been problematic (see Rapaport, 1953) and

has arguably lagged far behind clinical knowledge of affect from the start (see Brierley, 1937; Rangell, 1967). A shift to affect theory also raises a number of thorny questions —about the relation between affect and biological drives, about the ways genetically based proclivities interact with actual experiences to shape motives, and about the mechanisms by which motives develop beyond the first few years.

Perhaps the most formidable obstacle to a revision of both Freud's theory of affect and his theory of motivation, however, is at once

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2 Throughout this paper, I use the term 'empirical' in the narrow sense, to refer to controlled investigations that yield quantitative findings amenable to statistical analysis. I use this only by convention, however, because the data from clinical observation are clearly empirical in the sense that they reflect observation and not simply logical analysis.

3 In attachment relationships, for example (his second motive), young children obtain pleasure and comfort (motive five) from proximity to attachment figures, cry or cling to them to avoid aversive feelings (motive four), or, if the relationship is intensely uncomfortable, avoid distress (motive four) by trying to shut off their needs for closeness (as in avoidant attachment; see Ainsworth, 1979).

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personal and political, because it threatens the identity of psychoanalysis as a discipline. At some conscious or unconscious level, theorists have recognised that to move from Freud's dual instinct theory to an affect theory of motivation would signal the demise of two of Freud's most central and 'cathected' models: his libido theory, which once distinguished psychoanalysis from the various Neo-Freudian models that rejected it (see Eagle, 1984, p. 6), and the structural model.

As Rapaport (1953) seemed to recognise, tugging on the loose threads of Freud's affect theory threatens to unravel his drive theory (Spezzano, 1993). If sexual pleasure is recognised as one form of pleasure, then libido in the erotic sense is one of many human motives mediated by affect and no longer has a privileged place in psychoanalysis. With respect to the structural model, if affect is viewed as central to motivation, the concept of the id, defined by its function (the psychic seat of motivation), is no longer tenable because motivation becomes a property of affect—which can be conscious, unconscious, primitive, mature, adaptive, maladaptive etc.—and is as much a property of the ego as the id.

As Sandler (1987) has pointed out, Freud actually offered two theories of motivation, one based on drive theory and the other based on his later theory of signal anxiety as a motivator. He never reconciled these two theories because they are inherently contradictory within the context of a structural model that juxtaposes a motivational structure with an executive structure. I hope to show that the data underlying these two theories can be explained using a single set of principles, broadening from a theory of anxiety to a theory of affect.

Psychoanalysis has always been, above all else, a theory about what moves people—the root of the word ‘motivation’ is *movere*—and about the way motives are transformed in a multitude of ways to produce compromise formations, including symptoms. Yet, as we have seen, the theory of motivation in psychoanalysis is now in considerable flux, with the most important efforts (such as those of Kernberg, Lichtenberg, Sandler, and others) attempting, in a way that makes good clinical sense, to rethink the links between drive and affect. This paper is an extension of that tradition. Its aim is to outline a revised psychoanalytic theory of motivation that meets several criteria, which I believe should apply to any effort to develop a psychoanalytic theory of motivation and affect.

Firstly, the model preserves the most important and enduring aspects of Freud's motivational theory—the spirit of the theory rather than the letter—namely his emphasis on the bodily and the animal, on conflict, and on unconscious motivation. It does not, however, labour under the constraint that somehow the end-product must resemble one or all of Freud's theories of affect or motivation.<sup>4</sup> Freud's motivational theory was far better than any competing theory of his time; his affect theory, however, never made clinical or logical sense. Scientific beliefs, like all psychic productions, are compromise formations. Attempted revisions of Freud's theories of affect and motivation have too long reflected a compromise between the desire for fidelity to the data of clinical observation and the fear of infidelity to Freud.

Secondly, the proposed model recognises, as do object-relations theories and Kernberg's

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<sup>4</sup> Too often psychoanalytic theorists have felt that they must show that Freud foreshadowed their latest formulation in an obscure footnote to an obscure paper. In his treatise on affect in psychoanalysis, for example, Spezzano (1993) extracts a series of implicit propositions about affect, many of them quite valuable, from contemporary clinical writing, but then feels compelled to argue that this is what Freud meant all along or, at the very least, that the conclusions he reached simply lay ‘along the trajectory Freud clearly was following’ (p. 71). Physics would certainly be in a different place if physicists had to reconcile all of their contemporary formulations with quotes from Newton's *Principia*.

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linkage of motivation to representations, that many of our most important motives are interpersonal. It does not, however, assume that all affects are interpersonal, linked to object representations, or derivative of relationships. I can feel happy listening to music even if I am schizoid, and I can feel angry if my computer is not functioning properly.

Thirdly, it contextualises motivation in a contemporary understanding of human evolution and the selection pressures that gave rise to motivational structures in humans and other primates. Freud made use of the evolutionary theory of his day, and we should do the same, since mental and behavioural proclivities, like physical morphology, have an evolutionary history. Any theory of human motivation must

consider the impact of motivational adaptations on the capacity of our ancestors to survive, reproduce, and maximise the survival and reproduction of kin, since those individuals whose motivational dynamics maximised their reproductive success were the ancestors of contemporary humans.<sup>5</sup> Freud's theory of the death instinct, for example, is untenable because an identical organism without such an instinct would clearly have out-survived and out-reproduced it. The proposed model also attempts to show how motives can be learned, and how environmental events interact with naturally selected proclivities to produce conscious and unconscious motives.

Finally, the model not only stays close to clinical data, but it integrates clinical observation with relevant data from the laboratory. Psychologists have been studying motivation, if intermittently, for almost a century. Developing a theory that makes clinical sense but cannot account for what has been observed in the laboratory is as illadvised as developing motivational theories without attending to clinical observation. If psychoanalysis wants to offer a theory that accounts for the motivation of a relatively small group of people while they lie on the couch for four to five hours a week, its theorists can choose to attend only to the data of analytic hours. If it aspires to a more general psychological theory, however, no data can be ignored because all data are potentially falsifying or elucidating.

The task to which this article addresses itself is obviously one that would require far more pages (and cerebral processing power) than I have been allotted. Nor do I claim tremendous originality. Sandler (1987, 1989) and Bowlby (1969), among other psychoanalytic affect theorists, have offered many similar propositions. What I hope to show, however, is that we may be able to move towards a clinically and empirically sensible theory of motivation that meets the criteria outlined above while simultaneously offering a guide to clinical work in the way drive theory once did. Throughout, I draw on empirical research but also use clinical examples to show how this model can explain precisely the same kinds of data that drive theory was developed to explain. These clinical examples are not intended to strike readers as novel; on the contrary, they are intended to show how the proposed model can draw out, and draw on, the implicit principles of interpretation that underlie contemporary clinical practice with greater fidelity and coherence than the loose and often contradictory set of propositions that constitutes the current body of explicit theory on motivation in psychoanalysis.

To set the stage, I begin by describing a central problem with the way we tend to think about motivation in psychoanalysis, a tendency to postulate broad motives without activating conditions. I then attempt to show how biological needs and proclivities become integrated into learned motive systems mediated by affect. The next section considers the role of representations in motivation,

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<sup>5</sup> For other efforts to integrate psychoanalytic and evolutionary thinking, see Badcock, 1994; Slavin & Kriegman, 1992.

demonstrating the way cognition, affect, and strategies for regulating affect can contribute to complex compromise formations. The concluding section applies this analysis to transference, and shows how a revised theory of motivation preserves the central features of the psychoanalytic account of transference while pointing to some important aspects of transference that require further consideration.

## **A problem in conceptualisation: broad motives without activating conditions**

Psychoanalytic theory has tended to posit broad motives—sex, aggression, relatedness etc.—and not to specify their activating conditions. This way of thinking stems in part from a mode of theorising prevalent in nineteenth-century German intellectual life, particularly among philosophers who, like Freud, viewed motives as primitive, largely unconscious forces that lead us to do their bidding regardless of our conscious intent (for background, see Ellenberger, 1970; Weinberger, in press). Schopenhauer, for example, posited reproduction as the driving force behind human action; for Nietzsche, the master drive was the will to power. This way of approaching motivation also seemed sensible in the decades following Darwin's *Origin of Species*, as thinkers began wrestling with the implications of the view that contemporary humans were those whose ancestors had run the gauntlet of millenia of selection pressures and managed to survive and reproduce. Indeed, Freud's first approximation of a theory of motivation proposed the dual instincts of self-preservation and sex, which is not far afield from the way contemporary evolutionary theorists define reproductive success in terms of survival and reproduction. But the postulation of master motives, rather than specific motivational systems activated under particular conditions, is no longer consonant with more contemporary views of natural selection and of our knowledge of the biological mechanisms mediating these systems.

### **The Multiple Meanings of Libidinal Striving**

Consider the concept of libido, which encompasses desires for sex, sensual pleasure, pleasure in general, intimacy, love of children and family, friendship, and even self-esteem (cathexis of the self). This definition is problematic in multiple ways. Several of these motives have different neurophysiological substrates, and to refer to them as the same thing is to allow our constructs to obscure differences among motive systems that evolved separately and subserve different functions (see also Bowlby, 1969; Eagle, 1984). To the extent that hunger motivation falls anywhere in Freud's drive theory, it must be part of the sexual drive (oral gratification). Yet very different hypothalamic regions regulate eating and sexual behaviour, and these brain structures evolved as 'solutions' to two very different sets of adaptive problems, one involving provision of energy to the organism and the other actually involving consumption of energy for purposes of reproduction. Similarly, the motivational systems mediating children's attachment behaviour are probably quite different from those that regulate desires for friendship. A prime feature that distinguishes attachment relationships from other object relationships is the tendency to experience distress at the other's absence (Bowlby, 1969; Ainsworth, 1979). Separation distress is quite distinct physiologically and phenomenologically from the feelings friends may have who miss each other, and it probably involves different neurotransmitter systems.

From an evolutionary point of view (Buss, 1991; Konner, 1982; Cosmides & Tooby, 1992), natural selection does not operate on a whole set of disparate impulses, label them as one overarching 'drive', and choose to accept or reject the package. And neither should we. Contemporary theorists who have applied evolutionary concepts to

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psychological functioning have examined the way natural selection has shaped the evolution of specific mechanisms that have helped humans maximise their capacity to survive, reproduce, and contribute to the survival of genetically related individuals. The fact that taste buds detect qualities such as bitter and salty reflects the adaptive value of being able to recognise and remember foods that cause illness (or prevent it, through ingestion of nutrients such as salt or vitamins). Humans may be equally attuned to specific social cues, such as the sound of a baby's cry, which motivates parental behaviour, or signs of social status, which influence mate selection in all primates. Natural selection operates at the level of specific mechanisms, not at the level of broad instinctive goals; the latter are constructs, which are selected by theorists, not by nature.

A corollary to the problem of denoting multiple motives with the same label is the lack of attention to the conditions for activation of discrete processes. In psychoanalysis, we do not have a consistent theory about the way different forms of approach-related motivation, usually loosely referred to as libidinal, get activated at different times. We often talk, as Freud did, about one motive, such as the love of children, as derivative of another, such as the sexual drive. From an evolutionary standpoint, this is no longer tenable. The conditions that evoke sexual excitement are not the same as the conditions that lead a parent to soothe a crying infant. This does not mean, of course, that motives and their antecedents never occur in admixtures. Indeed, it would be surprising if a single psychological mechanism could not come to serve multiple purposes, as routinely occurred in the evolution of physical morphology, such as the dual use of the penis for elimination and reproduction. We would not, however, argue that urinating is a sublimated form of ejaculation, even though the two processes, sharing a common organ, are at times related.

When brought out into the open, the problems with the tendency to rely on master motives such as 'libido' or 'relatedness' are readily apparent. Would people really show primarily sexual behaviour towards everyone in their lives, rather than seeking friendship, intimacy, or partnerships for mutual security or financial gain, if the direct sexual aim were not prohibited? Would parents generally molest their children rather than nurture them? No doubt people have multiple motives, and parents have sexual as well as loving and rageful feelings towards their children. But other animals take care of their offspring and can distinguish different classes of conspecifics, some of whom are potential mating partners, some competitors, some peers, and some objects of nurturance. If Freud stressed anything about human motivation, it was its continuity with other animal species. Have other animals somehow learned to sublimate their sexuality to activities such as caretaking? Or have humans, like other animals, evolved different motivational mechanisms to solve different problems of adaptation?



The fact that people tend to become sexually involved with genetically unrelated others probably reflects selection pressures that have made humans less inclined sexually towards people with whom they had familiarity in their first five or six years, which protects against the hazards of inbreeding. Although we usually interpret the taboo against incest in terms of oedipal dynamics, evolutionary theory suggests a complementary hypothesis, that the castration complex and the disgust adults consciously feel at the thought of sex with their parents may reflect in part an evolved mechanism that gets activated in childhood or during puberty, which conflicts with countervailing wishes developed through a history of nurturance and pleasurable sensual experiences with them.

In some organisms, in fact, an aversion to incest is pre-wired, mediated by pheromonal cues. In one study (Simmons, 1990), the experimenters allowed female crickets to

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choose where they would spend their time. Potential male mates were not present, but the experimenter created four territories, marked with the scent (from droppings) of a male who was a full sibling, a half sibling, a cousin, or an unrelated cricket. Thus, the females had the choice to spend time in the territory of male crickets related to them by .50, .25, .125, and 0, respectively. The amount of time the females spent in each territory was inversely proportional to the degree of relatedness; that is, the more distant the relation, the more time spent in the neighbourhood. The mechanism for kin recognition was chemical, as female crickets whose pheromone receptors were covered with wax showed no preference for unrelated males. Humans are unlikely to use pheromonal cues of this sort, although avoidance of incest could be mediated by other mechanisms, such as familiarity during a sensitive period in childhood. Data showing minimal sexual contact among adult peers reared on Israeli kibbutzim who lived together in early childhood (Shepher, 1978) support this hypothesis. Freud himself (1905) proposed an organic basis to the aversion to incest in the Three Essays.

An unfortunate consequence of denoting ten or fifteen different motive systems with the same term is that it sets up false antinomies—such as whether people are primarily motivated to seek sex or relatedness—that affect the frameworks clinicians use to understand, and ultimately to interpret, their patients' experience. Choosing between a theory of libidinal versus relational drives is like taking sides on whether people are, at root, really motivated by hunger or by thirst. Just because sexual behaviour can sometimes be a proxy for object-relational dynamics (as when a borderline patient is so desperate for contact that she substitutes promiscuity for intimacy), or relationships can sometimes be little more than vehicles for sexual impulses, does not mean that one or the other is primary. Humans seek sexual gratification, and they engage in various kinds of relationships, just as other primates do.

### **Aggression: One Motive or Many?**

The same problems arise when considering aggression as a motive, whether one is a classical theorist or simply a clinician who knows from experience to attend to the way aggression may be implicated in everyday compromise formations. In

psychoanalysis, a master motive for aggression is often used, implicitly or explicitly, to account for a wide array of behaviours. No one with any clinical experience would want to deny that aggressive impulses can find their way into the damndest places, from the bedroom to the boardroom to the proctologist's office. But the range of motives we are likely to subsume under the rubric of 'aggression', like that of libido, is far too broad.

The desires for power and achievement, for example, can both be viewed as aggressive drive derivatives. Yet empirical research shows them to be quite distinct from one another, and to have different correlates and developmental antecedents. High need for achievement is associated with strict toilet training and scheduled feeding in early childhood, whereas high need for power is associated with permissive socialisation in early childhood with respect to sex and aggression (see McClelland et al., 1989). Subjects high in power motivation, and particularly those who try to inhibit its expression, are more likely than other subjects to suffer from high blood pressure (McClelland, 1993). Apparently, individuals who continually have thoughts about power that they are blocking from expression or from consciousness experience chronic autonomic arousal, which is physiologically damaging. The same is not true of inhibited achievement motivation.

We also need more carefully to disentangle anger as an affect from aggression or sadism as a class of behaviour or a component of fantasy, since anger may not accompany aggressive sexual fantasies at all. Further, anger is sometimes pleasurable and sometimes painful, and is not readily classifiable as either a pleasurable or unpleasurable

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emotion. In addition, aggression can be instrumental, as in the use of punishments meted out by a judge (Geen, 1995), which may or may not involve activation of anger and may reflect varying admixtures of sadism, motivation to protect society, motivation to provide justice, and other superego motives that may or may not be infused with aggression.

Even if one were to accept aggression as a broad motive, one would still need a more refined set of hypotheses regarding the conditions that elicit aggressive impulses. To postulate that humans, like other animals, have an innate predisposition to become aggressive, experience anger, or produce fight/flight responses says nothing about the circumstances under which those responses will be activated. Despite the exquisite attention to the vicissitudes of aggression in clinical practice, our theory offers surprisingly little insight into those conditions, other than to say that humans have a free-floating need for aggression that sometimes finds an object, presumably because certain experiences —usually the same ones believed to cause every other kind of emotional disturbance —occurred in childhood. Theorists do sometimes offer more specific theories of the origins of aggression. For Kohut, unempathic mothering leads to a later vulnerability to narcissistic rage when self-esteem is under attack; for Kernberg, a constitutional overabundance of aggressive drive contributes to borderline splitting and aggression etc. I suspect, however, that a single formula will not explain the multitude of ways in which aggressive impulses, anger, sadism, and so forth can originate or be activated at any given moment.

To summarise, we are complex organisms engineered by natural selection to have complex needs that foster survival and reproduction. No single- or dual-motive theory is likely to capture that complexity. The question, then, is how to maintain the strengths of the psychoanalytic approach to motivation that has guided a century of clinical work while abandoning some of its outdated assumptions.

## **Propositions towards a revised theory of motivation**

The model presented here focuses on the role of affect in motivation but does not ignore the obvious ways in which drive states influence behaviour. Instead, it views feelings as the instigators of motivated behaviour, whether those feelings stem from activated drive states (as in the subjective experience of hunger, or the subjective state of sexual arousal) or a history of learned associations between representations and emotional states. Human motives reflect the interaction of a brain tuned to certain affective frequencies and an environment, including a cultural environment, that shapes and affords a spectrum of experiences with potential motivational significance.

According to the theory (see Westen, 1985, Chapter 2), emotions and sensory feeling-states channel behaviour in adaptive directions in organisms whose behaviour is not rigidly controlled by relatively automatic instinctive processes (see Plutchik, 1980; Sandler, 1981, 1987, 1989; Tomkins, 1962, 1980). Affects are mechanisms for the selective retention of behavioural and mental responses: that is, of the behavioural and mental processes a person produces, those that minimise aversive affective states or maximise pleasurable feelings will be more likely to be used again in similar situations. Affect is thus a mechanism for the 'natural selection' of responses; regulation of affect becomes a way of adaptively regulating behaviour.

## **Biological Foundations of Learned Motives**

In this view—and paradoxically echoing one of the least psychoanalytic thinkers in twentieth-century psychology, B. F. Skinner—where the natural selection of organisms

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leaves off, the natural selection of behaviour through learning begins. Affects evolved as mechanisms for selecting behaviour that, in aggregate, tended to serve our ancestors well. The question is how to integrate the psychoanalytic vision of a biological organism with certain motivational tendencies encoded in its DNA with the vision of an organism that can learn highly specific wishes and fears that are not genetically preprogrammed. Unlike most primates, human brain mass develops more outside than inside the womb, and dendritic connections develop throughout the lifespan and substantially during childhood. This means that cultural and other forms of learning actually get structured into the organisation of the developing brain, depending on environmental inputs to it (see Shore, 1996). My argument, similar to that of Kernberg, Sandler, and others, is that affects tend to channel thought and behaviour in adaptive directions by becoming associated with representations of self, others, and physical stimuli that have accompanied pleasurable or painful states of various sorts in the past.

One of the major, and by now familiar, problems with classical drive theory is the absence of mechanisms for learned motivation and the elaboration of only one highly canalised path (psychosexual stages) for connecting motives grounded in biology with socialisation practices that create or channel motives. Although ego psychology posited broad principles of cognition, and infancy researchers such as Emde (1989) and Stern (1985) have offered detailed accounts of the connection of affect and cognition in infancy, psychoanalysis lacks a general theory of learning (see Schwartz, 1987) that can explain the precise mechanisms through which motives develop and are transformed throughout the lifespan. Consider a patient whose father remarried and began a second family when he was 7. The patient was possessed by the need to achieve success, which was imbued with competitive feelings towards his step-siblings, who had replaced him in his father's house (and, he feared, his heart and later his will). The patient's need to succeed also appeared to express a longing for his father's love and respect; an identification with his father, who was a successful attorney; and aggressive impulses towards other males, displaced from his father and step-brothers, who he could 'beat' with his success. Now precisely how did he transform 'raw' drive material of aggression, libido, or an object-relational need for relatedness into a driving legal ambition and put together the impressive skills over several years to actualise this ambition? And how did his living in a competitive, achievement-oriented society contribute to the channelling of these raw materials into a socially acceptable form?

People in different cultures vary tremendously in the goals they consider valuable to pursue (Kardiner, 1945; LeVine, 1982), and a theory of motivation must account for the mechanisms by which such motives, many of them quite 'sublime', emerge in an animal housed in a body, whose hypothalamus differs little from that of a sheep. For example, the extent to which people engage themselves in our culture in the pursuit of wealth is quite unusual in cross-cultural and transhistorical perspective. Motivational patterns are quite different among the Kapauka Papuans of New Guinea, who not only discourage, but strictly punish the accumulation of individual wealth (Pospisil, 1963). The Papuan attitude towards accumulation is typical of peasant societies, where resources tend to be very limited, battles for scarce resources would be highly detrimental to nearly all involved, and a more communalistic attitude usually prevails (Foster, 1965). As Fromm (1955) has argued, socio-economic systems tend to shape people's motivations so that they want to act in ways that the system needs them to act.

Sublimation of motives, such as the transformation of envy of siblings into motivation for success, is not something that

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automatically or effortlessly happens, and individual compromise formations often take their shape from culturally patterned compromise formations (Levine, 1982; Westen, 1985, in press). The patient described above would have had a very different motive structure if he were a Papuan. The sublimation that worked for him only did so because he was externally reinforced at various steps along the way for his efforts at achievement and because he had the requisite forms of intelligence that enabled him to develop the competencies to carry out his goals. What we lack is a theory of reinforcement that can explain how social experience channels impulses, or a theory

of skill development that can account for the way different individuals may or may not be able to choose certain sublimations or paths for channelling their motives.<sup>6</sup>

## **From Biological Process To Psychological Motive**

To address these issues, I begin with a biological motive, hunger, although, as we shall see, even the most biological motives include learned elements, and the most psychosocial motives rely on an affective system that is as biological as any liver tissue. With hunger, sex, and other motives, the brain is pre-adapted to an 'average expectable environment'. However, the particular nature of that environment becomes incorporated into motivational structures through learning, which channels biological propensities whose parameters are only broadly specified into much more precise goal-directed activity, and delimits the range of experiences an individual will ultimately find satisfying.

At least two biological processes can instigate the subjective feeling of hunger. The first is the gradual reduction of glucose in the bloodstream, which is detected by receptors in the liver and hypothalamus (see e.g. Hoebel & Teitelbaum, 1966; Karadi et al., 1990). The second is the experience of emptiness in the stomach (Cannon & Washburn, 1912). Some research suggests that hunger may in part also reflect levels of fat at the body's disposal (Friedman et al., 1986). In each of these cases, a physiological process related to deprivation produces a subjective feeling, which in turn motivates behaviour. As theorists, we can postulate a drive for hunger. From a psychological perspective, an affective state (using the term loosely, to refer to sensory feelings as well as emotions) is what motivates ingestive behaviour. In eating as in sex, the presence of an external stimulus can also activate a motive, even in the absence of internal organismic changes; passing a bakery or someone who is attractive can motivate fantasies or behaviour even when an individual is sated.

The drive to eat, while innate, is substantially modified by learning. Part of this is cultural, as children acquire tastes for their native cuisine. Other gustatory learning occurs through classical and operant conditioning, as people avoid foods associated with nausea or bitterness. Humans, like other animals, have evolved psychological mechanisms that lead them to make certain associations between stimuli and nausea more readily than others. Rats that experience

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<sup>6</sup> We also lack a theory that can account for the highly specific motives (such as the wish to be a successful attorney, or the desire for respect or prominence in one's intellectual community, such as psychoanalysis) that change or develop in adulthood. The desire among analysts to be respected by other analysts no doubt draws upon childhood motives for social approval, sibling rivalry, oedipal rivalry, identification with esteemed authority figures, phallic strutting, aggressive fantasies of domination over others, and so forth. However, most analysts could not readily shift their motivation, say, to esteem from the community of behaviourists, physicists, or Hare Krishnas if the underlying motives were analysed. A theory of motivation needs to explain precisely how we come to cathect—or, to use Rangell's more experience-near language, how we come to care about—the particular goal-states that drive us

throughout the lifespan, some of which dramatically change through treatment or life experience.

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radiation-induced nausea following exposure to flavoured water, light, and sounds will develop conditioned aversions to the flavoured water but not to the visual or auditory stimuli (Garcia & Koelling, 1966). Natural selection has thus selected for the proneness to connect particular kinds of stimuli with specific affective responses because doing so confers a clear survival advantage. Evolved, biologically driven affective proclivities similarly become integrated into other forms of motivation. Social smiling, which emerges in the first quarter of the first year of life, reinforces nurturant parental behaviour, and the frequency range of a baby's cry may be particularly noxious and hence innately motivate adult caretaking. Experimental data even suggest that humans may be predisposed to associate aversive experiences more readily with angry than with smiling faces (Dimberg, 1990), much as they more readily associate nausea with a taste than a sound. Thus, evolved mechanisms shape psychological motives through conditioning.

## **Conditioning and Psychodynamics**

From a psychoanalytic perspective, precisely what does it mean to speak of the shaping of motives through classical and operant conditioning (see Cooper, 1992; Reiser, 1984; Schwartz, 1987; Westen, 1985)? Essentially, classical conditioning of emotional responses involves the association of an affect with a representation of an object or stimulus. The representation may be quite primitive, as in conditioning that occurs at the thalamic level (which involves very gross stimulus features; see LeDoux, 1995), or it can be much more complex, as when a person gradually starts to dislike another through repeated experiences of feeling like the other is misattuned or misunderstands. In human interpersonal interaction, of course, one representation is rarely associated with one affect. The same person associated with feelings of misattunement may also be associated with security or sensual gratification, leading to conflict.

Operant conditioning, in which the consequences of an action influence its tendency to be reproduced, simply means that the affects attached to a representation lead to approach or avoidance of it (or both). People, like animals, tend to avoid what they have learned feels bad and approach what feels good. The more typical case in human life is a compromise between approach and avoidance, motivated by the conflicting affects associated with a representation. Like Skinner and Thorndike in the behaviourist tradition, the model of motivation offered here thus suggests that the consequences of an action determine whether or not it is maintained or produced again. Unlike radical behaviourist theory, however, it proposes that the consequences that influence behaviour are largely affective (see Mowrer, 1947) or involve the anticipation of evaluatively significant events. In other words, positive affective states reinforce mental or behavioural processes, whereas aversive states punish them, rendering them less likely to be produced.

Ample evidence suggests a link between feelings and operant conditioning. Latane and Schachter (cited in Schachter & Singer, 1962) found that rats injected with

epinephrine, which enhances anxious arousal, are substantially superior in avoidance learning to control rats; up to a point (when fear is disorganising), the more fear, the more avoidance, because fear motivates avoidance. The opposite occurs when rats are administered anxiolytic medication: they have trouble inhibiting punished responses (Gray, 1979). Neurologically impaired humans with damage to the ventromedial prefrontal cortex, which is involved in connecting behaviour to its emotional consequences, similarly show deficits in their ability to make effective choices, and particularly to avoid socially inappropriate or punished behaviour (Bechara et al., in press; Damasio, 1994). As Damasio (1994) has argued, their

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reasoning is intact, but their behaviour is disordered because they cannot use their feelings as guides.

Within the behaviourist tradition, Gray (1990) has proposed neurologically distinct motivational systems for appetitive and avoidant behaviour associated with positive and negative affect, respectively. One system, the behavioural approach system, is associated with pleasurable emotional states and is responsible for approach-oriented operant behaviour. Another system, which Gray calls the behavioural inhibition system, is associated with anxiety, and is involved in avoidance learning. Whereas the first system involves neural circuits in which dopamine is the primary neurotransmitter, the behavioural inhibition system relies upon norepinephrine pathways. Administration of chemicals that block the activity of norepinephrine (and hence reduce anxiety) inhibits the functioning of this latter system.

While research from the behaviourist tradition thus suggests that people's actions reflect their history of affective associations to people and situations, psychoanalytic experience suggests that the rewarding or aversive properties of environmental 'stimuli' such as these stem from their meaning to the person. One narcissistic patient, an architect, would repeatedly 'display' with colleagues, which, not surprisingly, led to widespread dislike for him in his firm. Yet he continued to display. Self-defeating behaviour of this sort has been difficult to explain, and is the type of phenomenon that led Freud to postulate a death instinct. From the present perspective, the mechanism is theoretically straightforward and is likely to resonate with most readers' clinical experience: when the patient was a child, he found himself constantly feeling deflated by his narcissistic, self-preoccupied mother. Displaying was a compensatory, defensive behaviour that made him feel better, as he essentially provided for himself the approbation he could not find in his mother's eye. Thus, displaying was reinforced through minimisation of the affect. When he displays, he feels aggrandised, although he must shut off conscious awareness of the cues other people are sending. Whereas most responses that elicit pain are extinguished, displaying for this patient is evoked frequently when he feels deflated because it is associated with reduction of shame and negative feelings about himself. Because this process is unconscious, however, it has not proven self-correcting. Paradoxically, the patient responds to negative responses from other people with precisely the same behaviour that elicits their devaluation of him (see Wachtel, 1977, 1993, on 'cyclical psychodynamics'). From a therapeutic perspective, the aim of making him aware of this pattern is to allow him to develop more effective, less self-defeating affect regulation strategies now that he is an adult and no longer in the gaze of his mother's blind eye.

Similar processes underlie other forms of masochistic behaviour, such as the tendency of sexual abuse victims to enter into violent relationships as adults. Aspects of the abuse situation become associated through classical conditioning with genital stimulation, physical or emotional closeness, feelings of oedipal victory, or other meanings associated with positive affect, and hence become the basis of wishes. Lingering aversive affective states may also motivate attempts to master the trauma, such as efforts to restore a sense of control to reduce feelings of helplessness associated with fear and depression. Further, unconscious guilt stemming from attributions of personality responsibility for the abuse, for beating an oedipal rival, and so forth, motivate self-punitive behaviour that reduces the guilt through penance and is hence reinforced.

As these examples suggest, from a psychoanalytic perspective, mental processes, like behaviours, can be conditioned (that is, selectively retained) by their perceived utility in regulating affect. Dollard & Miller (1950) argued that repression is essentially an internal flight mechanism in which a person can

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be motivated not to think something in order to avoid an unpleasant feeling (see also Wachtel, 1977). When a child represses oedipal fantasies, he reduces guilt and fear. The 'operant' of repression is thus reinforced by the elimination or reduction of an aversive affective state. Conscious coping strategies similarly serve the function of affect regulation and are maintained by their perceived efficacy. If self-distraction while being given an injection helps minimise a person's anxiety, she will likely use the same strategy in a similar situation at a later point. Empirical research suggests that some affect-regulation procedures are more likely to be evoked by intense versus weak affects, and that others tend to be elicited by specific emotions (such as reparative responses, which are evoked by guilt and sometimes shame but not by anxiety; Westen, 1994; Westen et al., 1996).

## **Rethinking Libido**

If we turn now to some of the motives subsumed under the term 'libido', we can see the way biological proclivities and learning interact to produce motives. As with eating, biological propensities become translated into motivated action through affect. People are motivated to pursue particular forms of sexual activity with particular others because those actions, objects, or fantasies make them feel sexually and emotionally excited (Kernberg, 1992). Representations of these affectively charged activities or objects become components of wishes, which motivate behaviour.

Biology influences these processes by establishing the range of innate releasers (Hinde, 1970; Tinbergen, 1951) in the environment that naturally elicit sexual attraction. The fact that humans tend to mate with conspecifics probably requires minimal learning, and the tendency to associate certain sexual stimuli with arousal is probably as much an evolutionary adaptation as the evolved link between certain tastes and food preference. Psychological research has begun to uncover some of the mechanisms by which such motivational proclivities are encoded. Prenatal hormonal exposure in humans, as in other animals, has organisational effects on the structure of the brain; that is, hormones shape neural circuitry and organisation. Excess exposure



to androgen in utero not only produces masculinised sexual morphology and behaviour in female animals, but it does the same in humans, leading to increased homosexuality and bisexuality in adult females with adrenogenital syndrome (Money, 1987; Money & Ehrhardt, 1972). Evidence for genetic influences on sexual orientation, particularly in males, is also rapidly accumulating (Bailey & Pillard, 1991; Bailey et al., 1993; Gladue et al., 1984; LeVay, 1991), such as data on concordance rates between monozygotic twins.

Beyond organisational effects, hormones also have activational effects; that is, once the brain circuitry is in place, hormones activate these circuits. In males, at least, testosterone levels are correlated with amount of sexual activity (Udry et al., 1985), and testosterone replacement in castrated men leads to increased sexual arousal and fantasy (Bancroft, 1984). For males, then, the presence of testosterone in the bloodstream appears to mediate the association between certain stimuli or their mental representations and sexual arousal. Without it, the affective meaning of a stimulus changes. As decades of psychoanalytic observation attest, however, the fantasies that become energised by the activational effects of testosterone are canalised in childhood by both culturally transmitted agendas and idiosyncratic childhood constructions and experiences associated with erotic pleasure.

The 'need for relatedness' is in one sense every bit as biological, and in another, every bit as subject to specific learning experiences, as sexual motivation. Bowlby (1969) described attachment as a motive system whose function is to maintain the child's security by

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keeping it in proximity to caretakers while it is young and vulnerable. The capacity to experience separation distress appears to mature in the third quarter of the first year, as it emerges at roughly the same point cross-culturally (Kagan, 1976). When an infant repeatedly feels afraid in the absence of attachment figures and soothed in their presence, it begins to form representations of desired and feared states associated with parental availability or non-availability. These representations form the rudiments of wishes (for the object's return) and fears (of abandonment).

Thus, an innate propensity (separation distress) interacts with the presence of real objects to produce motivational structures comprised of a representation of a wished-for or feared state, a representation (however simple or complex) of the current state vis-à-vis the wish or fear (that is, whether or not the state is being attained), and an affect reflecting the discrepancy or convergence between the perceived state and the wished-for or feared state. The affect in turn motivates behaviour (such as crying or seeking the attachment figure), and if the behaviour successfully reproduces a pleasurable state or reduces an aversive one, it will be encoded as a successful procedure for affect regulation and hence become activated in similar situations in the future. Matters become more complex, even in the first year of life, because, as noted earlier, the same representation is often associated with more than one affect, and hence the infant may be simultaneously motivated towards approach and avoidance, leading to the rudiments of compromise formations. As both affects and cognitions become more differentiated over the course of development, wishes, fears, and compromise formations will similarly show more complexity.<sup>7</sup>

## Representations and Motivation

So far, we have addressed the affective ‘fuel’ that energises thought and action. We now examine the ‘maps’ that direct motivated thinking and behaviour. As several theorists have suggested (Bowlby, 1969; Brenner, 1982; Kernberg, 1992; Sandler, 1989), motives typically include representations, and they often involve comparison processes of this sort between representations of actual and wished-for or feared states (see Holt, 1976). To use the language of control theory, discrepancies between

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7 Other affectively mediated mechanisms related to the class of motives broadly described as ‘libidinal’ have begun receiving attention from evolutionary psychologists. For example, experimental research documents sex differences in the experience of sexual jealousy, with males more concerned about their mates having genital contact with other males, and females more concerned with their mates having affection towards other females (Buss et al., 1992). These differences emerge on psychophysiological indices such as heart rate and facial muscle movements, as well as on self-reports, suggesting that they are ‘gut level’ affective responses. Presumably these gender differences reflect the differential costs of investing resources in another male's offspring (for males), versus having resources diverted from one-self and one's own offspring (for females). Similarly, from an evolutionary perspective, the tendency to care more about, and do more for, one's children, parents, and siblings than cousins or second cousins probably reflects the evolution of mechanisms favoured by natural selection through which people, like other animals, show concern for kin proportional to their degree of biological relatedness (the concept of ‘inclusive fitness’; Hamilton, 1964). The reasons for this are strictly mathematical: organisms that show differential preferences for other animals depending on degree of kinship will be more highly represented in the gene pool in the next generation. (In crass evolutionary terms, two siblings are worth eight cousins.) Familiarity and affectional bonds, rather than pheromonal cues, are probably the psychological mechanisms in humans that roughly approximate degree of relatedness and hence bias people towards making choices that maximise their inclusive fitness. With both sexual jealousy and care of related others, innate affective processes guide behaviour in ways that maximise reproductive success.

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cognitions about reality (or anticipated reality) and desired or feared goal-states (‘setgoals’) produce emotional ‘feedback’. This feedback in turn activates behavioural and mental responses (such as unconscious defences and conscious coping strategies) designed to minimise unpleasant feelings and maximise pleasant ones.<sup>8</sup> The ‘raw material’ for these affect regulation strategies may be biologically given, particularly in early life, as when an infant expresses its displeasure by crying and learns to associate crying with affect regulation. As children develop, however, they creatively learn to employ a range of strategies of their own devising, from inserting themselves in their parents’ bed at night, to endowing a transitional object or imaginary playmate with the power to make them feel safe, to shutting off consciousness of their needs for intimate contact if their attachment figures display too much discomfort with physical and emotional contact (for empirical data, see Main, 1990; Main et al., 1985).

## Discrepancy Processes and Affect Regulation

The goal-states people pursue can be of many varieties, such as proximity to an attachment figure (Bowlby, 1969), other object-relational motives like friendship or the welfare of one's children, sexual fantasies, superego standards, or avoiding becoming like a dreaded object of identification. A discrepancy between wishes for love or friendship and perceived reality leads to loneliness and despair, just as a discrepancy between a self-representation and superego standards can produce lowered self-esteem, anxiety, shame, sadness, or guilt. People can respond to the affects entailed by these discrepancies with behaviours aimed at changing reality (and hence minimising the discrepancy between reality and a desired state or maximising the discrepancy between reality and a feared state). Alternatively, they can use defences or conscious coping strategies whose function is either to alter the perception of reality so that it matches more closely the goal state, or to ameliorate the emotion directly (as is the case with isolation of affect).

For example, a patient who detested her mother for her lack of empathy described an incident in which the patient herself had behaved similarly towards her boyfriend. She had no awareness of the similarity, and when it started to become obvious over the course of the hour, she began getting angry and noting the ways that she differed from her mother. Essentially, a defensive distortion of her conscious self-representation, which minimised overlap with her representation of her mother, had been reinforced and maintained for many years by reduction of shame, self-hatred, and low self-esteem. When her conscious representation of self began to converge too much in the session with the dreaded self-representation, it evoked anxiety and probably shame, guilt, or disgust, whether consciously or unconsciously. The patient responded by distorting her self-representation to minimise its resemblance to her representation of her mother, and hence to maximise the discrepancy between her actual and feared self-representation. This, in turn, protected her from consciously experiencing unpleasant feelings towards herself. Apparently this defence was not effective enough, as she had to bolster it by becoming angry, probably to divert her attention from negative feelings towards herself, and hence managing the emotion directly.

The proposed model, like classical theory, views compromise formations as efforts to achieve the simultaneous satisfaction or optimisation of multiple motives. A patient who was physically and emotionally abused by her father as a child developed the

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8 For similar views from both psychoanalytic and cognitive theorists, see Bowlby, 1969; Carver & Scheier, 1982; Horowitz, 1987; Menninger et al., 1963; Miller et al., 1960; Powers, 1971.

chronic 'feeling' that something terrible had happened to him. One might infer the presence of two discrepancy processes operating at cross-purposes: a wish (involving a discrepancy between a desire for his death and cognised reality to the contrary) and a superego mismatch (involving a discrepancy between a moral standard and her

wish). The result was a compromise: she had the 'feeling' that something terrible had happened to him without making the attribution that it was her wish.

Discrepancy processes involved in the elicitation and regulation of affect have been well documented empirically (see Westen, 1985, 1994). Studies comparing discrepancies involving self-representations and 'ought' versus 'ideal' self-representations (similar to superego versus ego ideal standards) have shown that different types of discrepancies evoke different kinds of affects (Higgins, 1990; Strauman, 1992). Strauman et al. (1993) have even produced evidence linking a particular type of self-discrepancy associated with anxiety to lowered immune functioning, by activating the discrepancy experimentally. The extensive literature on self-serving biases documents that a majority of people will rate themselves above average on most dimensions (which of course is statistically impossible; for a review, see Taylor & Brown, 1988), that people are more likely to recall positive than negative information about themselves (Kuiper et al., 1985), and so forth. Studies have also demonstrated, as clinical experience has long shown, that individuals distort representations of people they like and dislike in order to minimise discrepancies between their wished-for and actual representations of them (see, e.g. Boulton & Smith, 1990; S. A. Miller et al., 1991).

None of this is to imply that all motives aim at discrepancy reduction, at least not in the strictest sense; indeed, the patient who feared becoming like her mother was motivated to increase the discrepancy between a feared and perceived self-representation. Further, people often seek a certain level of excitement, tension, novelty, and so forth, and they differ in their 'set-goals' with respect to these different feelings (such as the extent to which they seek excitement and new experiences; see Zuckerman, 1990). Thus, alongside motives to avoid matches between feared and actual states and to attain matches between wished-for and actual states are motivational pulls towards certain levels of arousal, activation, excitement, and even anxiety. Often seemingly aversive states of this sort are intermediate states on the way to a resolution that is experienced as pleasurable, as when people derive enjoyment from horror movies in which they sit on the edge of their seats in anxiety for two hours until the monster is destroyed. Such aesthetic outlets allow controlled enjoyment of aggression, mastery of terror, and ultimate relief from fear. What is common to all of these forms of motivation is that the motivational 'pull' comes from an affective state or an anticipated affect.

## **Hierarchical Organisation of Motives**

Many motives are hierarchically organised. Research in cognitive science has demonstrated that mental representations often have a hierarchical organisation (Meyer & Schvaneveldt, 1976; Rosch, 1978), and representations of feared and wished-for states are likely no exception. A person may have an unconscious mental category for relationships with females at the superordinate level, with subordinate categories of relationships with older women, peers, and younger women, each with its own subordinate levels. At the bottom level of the hierarchy are specific experiences in specific relationships (e.g. 'the time my mother blamed me for something my brother did'). Developmentally, these representations are built 'from the bottom up', as concrete instances with a particular person-category are gradually

generalised (see Stern, 1985). Wished-for and feared representations may similarly be hierarchically organised, with important ramifications

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for understanding a given patient's dynamics. One patient with prominent phallic-oedipal conflicts displayed boundless desires for female admiration, almost regardless of the age or status of the women. Other men with similar dynamics ignore older women and others they do not find attractive, and are only gratified by the attention of potential conquests or women their peers would find attractive, since the meaning, and the underlying motive, is different.

Motives are hierarchically organised in another way. We tend to focus in psychoanalysis on motives that are nefarious or forbidden, since those are the motives that give rise to symptoms. A theory of motivation that is both clinically useful and generally valid, however, must also include the kinds of motives, many of which are more conscious, that guide everyday goal-directed behaviour as people work out problems in relationships, strive for satisfying employment, seek help for their psychological troubles, and explore their inner lives in hopes of reducing their distress. Research on problem-solving documents that many such motives are hierarchically organised into subgoals (such as outlining a manuscript, writing it, soliciting feedback on it, and submitting it, which are all necessary to accomplish the final goal of publishing it), and that people monitor their progress as they accomplish or fail to accomplish subgoals that render their broader aims attainable (see Anderson, 1993; Miller, G. A. et al., 1960; Newell & Simon, 1972). Expectancy-value theories construe motivation as a joint function of the value people place on an outcome and the extent to which they believe they can attain it (the expectancy).

As these theories have been generated by cognitive researchers, they have generally left out the affect that ultimately motivates these goals and subgoals, have assumed that motives are conscious, and have not studied the developmental processes through which goals develop in the first place. They have also failed to account for the way multiple goals, many of them unconscious and less socially acceptable, enter into problemsolving, so that a goal such as becoming a successful lawyer may be imbued with multiple meanings. Nevertheless, conscious motives provide an important motivational system, if often quite distinct from unconscious motives. Longitudinal research suggests that conscious and unconscious motives have different developmental antecedents and correlates, and that while unconscious motives guide behaviour most of the time and are more useful in predicting long-term outcomes (such as occupational success over twenty years), conscious motives are better predictors of momentary behaviour when consciousness is focused on goal attainment (McClelland et al., 1989). This can be seen in treatment, when a patient has recently become aware of a repetitive pattern and manages to suppress it by exercising conscious control but frequently slips into the pattern when his attention is not focused on it.

## **Activation of Motives**

We can now return to the question of how motives become activated. One way is through neurophysiological events, such as the depletion in glucose that activates

hunger. Researchers many years ago found that if they deprived subjects of food or water and then administered a Rorschach or measured their speed in recognising food-related words that were flashed briefly, subjects were more likely to see oral images or to identify the words quickly (see Wispe & Drambarean, 1953). Apparently, when glucose levels get low enough, everything looks like a burger. Generation of affects such as depression or anxiety through neurotransmitter dysfunction, as in melancholic depression, can similarly motivate behaviour, such as avoidance or suicidality. Some other activators require little or no cognitive mediation (Zajonc, 1980), if by cognitive one means cortical involvement, notably stimuli

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that innately produce responses (such as a predator approaching) or those that produce affective responses through prior conditioning (such as an approaching syringe, which automatically elicits fear and tensing of the muscles).

In humans, however, most motives are symbolically mediated. They are prone to be elicited as external stimuli or internal fantasies activate networks of association on which they are encoded, or activate discrepancies between representations of actual and wished-for or feared states as described earlier. Research in cognitive science supports the supposition, shared by psychoanalysis, that affective responses are stored along associative networks. They are thus intimately connected with, and potentially triggered by, cognitive representations (Bower, 1981; Fiske, 1982), as when retrieving a memory brings back the associated affect. One might add that wishes and fears, which are cognitive-affective structures, are also located along these networks and can similarly be triggered.

Cognitive and psychoanalytic models converge on the hypothesis that activation of one piece of information or 'node' along a network of associations increases the level of activation of associatively connected nodes (Anderson & Pirolli, 1984; Collins & Loftus, 1975; Rumelhart et al., 1986). For example, one patient was in the midst of a painful decision of whether to divorce his wife. On days when he leaned towards reconciling, the words to a particular song kept coming to his mind: 'Reunited and it feels so good ...' On days when he was contemplating divorce, however, he found himself inadvertently singing a different tune: 'Fifty Ways to Leave Your Lover'. The hypothesis that activation spreads along networks of association makes neurological sense, since frequent transmission of information from one neuron to another facilitates future activation at the synaptic level. It can also explain experimental priming effects, as when presenting the word-pair 'ocean-moon' (the prime) makes subjects more likely to respond with 'Tide' when asked to name a laundry detergent. The reason is that the network of associations that includes ocean and moon also includes tide, which is doubly activated when the network of associations involving laundry detergents is activated (see Nisbett & Wilson, 1977).

Although cognitive neuroscientists have largely studied affectively neutral processes, nothing about the architecture of the mind suggests that affects, fears, wishes, and defences cannot be activated the same way. Indeed, we assume this when a patient describes the way she became enraged when she experienced her spouse as acting like her father and responded by withdrawing from him. In this incident, aspects of his behaviour primed a network of association around father not responding empathically,

father being critical, or whatever the particular meaning is to her. Such an event involves a process of prototype matching, in which features of the current situation activate enough of the neural network representing the prior set of experiences (including those parts of the network that give it its affective colouring) to lead to assimilation of the event to the prototype.

This kind of process has also been documented empirically (see Cantor & Mischel, 1979). Experimental research finds, for example, that simply instructing subjects to think about punishment will lead them to inflict greater punishment on another person and to experience more anger (Bargh & Barndollar, 1996; Berkowitz & Heimer, 1989). Priming a network of associations appears to activate related wishes, affects, and ways of interpreting other people's actions.

Much of the time a network is primed for a reason, namely that it is relevant to a conscious or unconscious goal that is momentarily or chronically active. Representations are particularly likely to become active unconsciously (referred to in the cognitive literature as 'accessible') when the person

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either expects them to be relevant or has motives related to them (Bruner, 1957). The more recently and frequently a representation or network of associations is activated, the more likely current information will be processed using it. Thus, a psychoanalyst's initial response to the word 'drive' when reading a headline will be different from an automobile mechanic's, because they have different associations that have recently and frequently been activated. An experimental subject who is afraid of receiving a shock will similarly be more likely than a control subject who has not been informed of impending shocks to slip and report the briefly flashed syllables 'shad bock' as 'bad shock' (Motley, 1980).

Some representations are chronically accessible, that is, they are activated extremely easily by environmental input (Higgins, 1990). Patients with anxiety disorders, for example, demonstrate an unconscious attentional bias towards threatening stimuli, whereas depressed patients show memory biases for negative information (Mineka & Sutton, 1992). When presented with pairs of threatening and non-threatening homophones (words that sound the same but have two spellings), anxious patients are likely to select the threatening spelling when asked the first spelling that comes to mind (e.g. die vs. dye) (Mathews et al., 1989). This reflects the chronic accessibility of anxiety-related representations and networks, through which they interpret their experience. Korfine (1994) has recently found, in a preliminary study, that patients who manifest borderline abandonment concerns on interview show an automatic, unconscious attentional bias towards words associated with rejection and abandonment.

Unresolved conflicts and concerns can thus create a cycle in which people are constantly 'on the lookout' for relevant environmental cues and maintain chronically active representations through which they unconsciously process information relevant to their conflicts and concerns. They consciously or unconsciously interpret their experience in line with these representations, and thus continually reactivate the motives associated with them. This was the case with a patient in psychoanalytic

psychotherapy who felt that her father always condescended to her, and who constantly experienced her therapist and other men in her life as 'not taking her seriously'. This perpetually reactivated both the longing and the sense of deprivation, which was associated with anger and self-loathing. She also would respond by driving men away, which in turn exacerbated her unmet needs.

Cognitive theorists have tended to assume that consciousness of a node on a network of associations is simply a matter of strength of unconscious activation; that is, if an idea or memory receives enough activation, it will become conscious. However, as the earlier discussion of the conditioning of defensive processes suggests, consciousness is more probably a joint function of level of activation (a cognitive variable) and motivation (a dynamic variable). The more important an idea, wish, fear, or affect is to a person at a given moment, the more likely it is to become conscious, unless its elimination from consciousness has been associated with regulation of an aversive affect state. When we hear a patient's conflict in 'derivative' form, what we are essentially hearing are the associations related to it along an associational network that have not been similarly rendered unconscious.

## **Implications for Transference**

Lest this discussion appear too abstract, let us consider the implications for the understanding of transference. Wishes, fears, expectations, affects, defences, and memories will become activated transferentially to the extent that the therapeutic relationship unconsciously matches, in the patient's mind, a childhood prototype (Freud, 1912; on the

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cognitive processes involved, see Westen, 1988). Aspects of the analytic situation may activate some of these mental processes from the start of a treatment, as the patient is disclosing intimate material to a person usually perceived as an authority figure. Other transferential elements, however, will only emerge as life experiences activate the relevant networks of association and as experiences in the consulting room render certain associational networks more accessible as the relationship deepens in ways that elicit previously inaccessible transferential processes. Because networks of association are unconscious, and because many of the thoughts, feelings, fears, and wishes on these networks are associated with anxiety, shame, or guilt, they will emerge only in derivative form.

To speak of 'the transference' is very imprecise, because transference refers to activation of dozens of thoughts, feelings, memories, wishes, fears, affects, and defences, and not to a single entity. Indeed, speaking of 'the transference' as if it were a special force field has led to pseudo-issues engendered by misuse of language, such as the question of whether patients have one relationship with the analyst (the transference) or two (the transference and the real relationship). In reality, two people always have one relationship, which is a complex admixture of many elements, some relatively stable and others dynamically changing with every interaction. Most patients at any given time are responding simultaneously to the analyst as an authority figure with specialised knowledge who, they hope, can be helpful (assimilating the analyst to culturally constituted and personally reconstituted representations of



doctors, authority figures, experts etc.), to a history of specific experiences with the analyst (some articulated and some unarticulated and unconscious), and to more idiosyncratic wishes, fears, fantasies, and expectations developed through childhood experiences with whatever class of person or situation is currently activated by their interactions. The resultant responses of the analysand are nothing more and nothing less than a compromise among these motives, emotions, cognitive constructions, and defences against threatening aspects of the situation as so construed.

All the while, the same process is occurring in the analyst, although being in the authority role and being the less vulnerable of the partners generally renders the analyst less likely to be pulled by more developmentally primitive issues. At any particular moment, the dynamics between two people represent an interpersonal compromise of two sets of intrapsychic compromise formations. In treatment, as in other interpersonal situations, variables such as the power differential between the participants and their relative levels of activity shape the balance of motives expressed in this interpersonal compromise.

These considerations suggest that the abstinence or neutrality of the analyst is not, in fact, the primary feature of the analytic situation that promotes transference reactions. People project qualities on to postmen and cashiers, too, whose personal characteristics are also largely unknown to them, but we do not usually consider these reactions of central importance. The reason we believe otherwise about transference processes that emerge in treatment is that other aspects of the analytic situation—notably its tendency to elicit reactions to authority, attachment, and intimacy—render it a window into the way patients behave in emotionally significant relationships, rather than in casual relationships with strangers who may also be relatively ‘neutral’. Avoiding too much activity and gratuitous self-disclosure in treatment is useful because it allows the patient's compromise formations to dominate the interpersonal field more than the analyst's, and it minimises to some extent the constraints placed on the patient's projections. But an abstinent therapist will primarily

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trigger associations to experiences from the past in which significant others were abstinent. There is no such thing as a ‘pure’ transference reaction divorced from a situational context.

## Conclusion

To summarise, emotions and other sensory feeling states channel behaviour in humans, whose behaviour is not rigidly controlled by instinctive mechanisms encoded at subcortical levels. Affects are a mechanism for the selective retention of mental and behavioural responses, including defences, compromise formations, and conscious coping strategies. Affects as motivators are as ‘biologically based’ as the drives of classical theory, since they evolved as solutions to problems of adaptation, and the neural structures that mediate them are encoded in our DNA; however, they provide a flexible mechanism for human motivation, by becoming associated through experience with representations of perceived, feared, wished-for, or otherwise valued states. Drive states can influence feelings, which motivate intrapsychic or behavioural

action, just as the convergence or divergence of representations of actual and feared or wished-for states can generate feelings that motivate action. Wishes, fears, and affects are located along associational networks and are elicited as these networks are activated by environmental stimuli, internal thought processes, neurohormonal processes (such as hypothalamic processes involved in sexual motivation), or some combination of these. The attempt to regulate affect—to minimise unpleasant feelings and to maximise pleasant ones—is the driving force in human motivation.

The model presented here in outline shares many features with the theories of Kernberg, Bowlby, Sandler, Lichtenberg, Jacobson, and others, and has several advantages over classical drive theory. One is that it is very close to clinical data. There are no cathexes and counter-cathexes, no drive derivatives and drive fusion. There are only wishes, fears, values (such as superego standards, which have the same discrepancy structure as wishes and fears), and affects. These phenomena are readily observed or inferred from clinical observation, and they are all terms one can use with one's patients, much as Freud could talk about the 'it' and the 'above me' with his.

Secondly, this model reflects both clinical data and empirical research. It allows a synthesis of psychoanalytic thinking with decades of behaviourist research on learning, with contemporary experimental research in cognitive science, with current evolutionary thinking, with a rich empirical literature on defensive processes (Paulhus, in press; Perry & Cooper, 1989; Vaillant, 1992; Westen, in press; Westen et al., in press), and with a number of areas of research in personality, developmental, and social psychology (see Westen, 1985, 1994). It is experience-near, scientifically testable, yet can, I believe, account for the same clinical data that drive theory was developed to explain. Indeed, much like the contemporary classical thinking of Brenner (1982), it asserts that wishes and fears (as well as affects and values) are the primary motivational forces one observes clinically.

Thirdly, the model can help address a historical problem with psychoanalytic theories of motivation, their inability to incorporate cultural influences on motivation. At mid century, this problem contributed to the split between Freudians and Neo-Freudians, leading to the apparent necessity of choosing between an approach that had difficulty accounting for cultural influences and an approach naïve to the depths of personal experience. Understanding motivation in a way that does justice to the darker sides of human nature and the complexities of meaning does not, however, require the assumption of primitive drives immune to experience. Instead, we can understand motives as emerging from the interaction of naturally selected affective proclivities, environmental

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events, and a mind constructed to construct meaning out of those events at whatever level it is cognitively capable (which in turn shapes and constrains successive motivational structures, both directly, through cognitive assimilation, and indirectly, as the developing child elicits responses from the social environment in response to her prior ways of understanding, fearing, and wishing). This formulation allows us to avoid dichotomising between the biological and the cultural, since the two are woven into the fabric of nearly every motive people experience. Indeed, in recent years, psychological anthropologists have been attempting to flesh out the ways cultural

models (shared representations of the way things are and should be) influence the events people experience, the meanings they impose on those events, and the mechanisms through which these models guide motivated action (see D'Andrade & Strauss, 1992; Shore, 1996; Strauss & Quinn, in press; Westen, in press).

Fourthly, the model offers a way out of an ideological divide in contemporary psychoanalysis that pits competing partial theories against one another. In his concepts of the pleasure principle and of libido in its broadest sense, Freud offered an essentially Hobbesian view of motivation: that humans seek pleasure and avoid pain. But he added another Hobbesian element, idiosyncratic to the contemporary West and associated with social and technological changes that had their roots in Hobbes's era: that the only reason people have truck with one another is because doing so gratifies their selfinterested desires, and that sociality per se carries no inherent gratifications. This second Hobbesian postulate is untenable from an evolutionary perspective and sets up a false antinomy of desires for others as objects of gratification and desires for others as objects of relatedness.

The first Hobbesian postulate, in contrast, is essentially agnostic about the content of people's pursuits. If genital gratification is pleasurable, people will pursue it; if being close to love objects or attachment figures is pleasurable and being separated from them is distressing, people will pursue proximity to them; if living up to one's standards is pleasurable and failing to do so induces shame, guilt, or anxiety, people will try to meet their standards. From this perspective, one cannot and should not choose whether one 'believes in' the motives posited by classical psychoanalytic theory, object relations theory, or self-psychology, since people are obviously motivated by all three. We may one day have a sound list of 'master motives' that are cross-culturally applicable, such as those proposed by Lichtenberg (1989) or Epstein (1991). In the meantime, we stand on clinically and empirically firm ground to suppose that whatever motives move us do so because of their affective significance to us.

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