

Biopsychosocial Approaches and Evolutionary Theory as Aids to Integration in Clinical Psychology and Psychotherapy

Paul Gilbert¹

Kingsway Hospital, Derby, UK

This paper explores the problem of fragmentation in clinical psychology. It is suggested that this is due to the nature of clinical psychology with its multitude of different concerns, ranging from the cultural to the physiological. To help us become more integrative we could more formally adopt the biopsychosocial approach which explicitly asks the clinician and theorist to focus on the interactions *between* various levels. This paper also argues that the biopsychosocial approach could be informed by evolutionary theory because this theory provides possible explanations of why certain developmental and social contexts can so powerfully impact on physiology. An evolutionary psychology relevant to clinical psychology can focus on the archetypal nature of human experience, be helpful in exploring therapeutic issues, and avoid some of the reductionist aspects of sociobiology.

SOME PROBLEMS

There has long been concerns that clinical psychology training and practice suffers from a fragmentation of schools, approaches, uni-dimensional micro-theories and research. Social/cultural and biological research are often located in separate literatures and professional sub-divisions which can be hostile to each other. Systemic and integrative approaches remain marginal as new theories of the causes of various conditions appear constantly; e.g. of unconscious conflicts, synaptic processes, negative thoughts, lack of social skills, family conflict and patriarchy—to mention the most common. These in turn can be located in our genes, early life, social structures and so forth. On the whole though, most psychological disorders are heterogenous, arising

from many interacting variables which may include; genetic disposition, social context, life events, personality and history of disorder, as shown, for example, by studies using path analysis (e.g. Kendler *et al.*, 1993). The concern with fragmentation has brought calls for greater *integrative* models for psychology in general (Cacioppo and Berntson, 1992; Hinde, 1992) and psychotherapy (Norcross and Newman, 1992). Many researchers now accept that much of our understanding and many of our theories are based on restricted models of sociobiology, psychology and sociology, and we need a more cooperative orientation that integrates data from many different fields (Hinde and Groebel, 1991). Such efforts seek not to reduce the importance of micro-theories (which are often easier to test and research than macro-theories) nor the importance of testing alternative theories and approaches, but to highlight the need for good integrative models, capable of tackling multi-dimensional complexities and systemic and feedback processes.

¹ Addressee for correspondence: Professor Paul Gilbert, Department of Clinical Psychology, Kingsway Hospital, Derby, England.

Clinical Psychology and the Socio-Cultural Domain

It is because we recognize that distressed states of mind are often created via developmental and social contexts that we have so many approaches to our concerns; from the individual person, and their biological state to the socio-cultural (Hinde, 1992). Social psychology has also been criticized for being overly focused on micro-theory and laboratory based investigations of rarefied phenomena (Harre, 1993), rather than a more integrative enterprise. S. T. Fiske (1992) suggested that social psychology is preoccupied with accuracy of beliefs and memory process at the expense of people as goal-serving, meaning creating individuals, who are concerned with impression management and tactical social behaviour to achieve social goals.

In thinking about how states of mind emerge from social discourses and relational patterns, it is cultures which create the contexts for unemployment, financial gains and losses, gender roles, sexual practices, physical and sexual abuse, substance abuse, prejudices and stigmatization. These can have biological effects which feed back onto psychological and interpersonal behaviour. Kemper (1990) for example, in a remarkable review of the evidence, has shown that the hormone testosterone is linked to various cultural factors that encourage and facilitate competitive behaviour. Chance (1984, 1988) argued that our social behaviours and internal psychology are influenced by the social structure we operate within. Two major distinctions are between agonistic (involving competitive, controlling, aggressive and fearful interactions) and hedonic (involving open, trusting and relaxed interactions). Feminist theorists have raised our awareness of the enormous importance of the cultural contexts and gendered values from which many disorders arise (e.g. Ussher, 1991). At a more individual level, many forms of psychopathology have been clearly linked with life events (Brown and Harris, 1989) and histories of abusive and neglectful relationships (Ogata *et al.*, 1990). Yet still, there is growing unease by our lack of attention to the cultural and socio-political dimension of our endeavours (Smail, 1987) as we try to help individuals in distress via personal therapy.

Clinical Psychology and Physiology

Social contexts shape our self-identities, plans, fantasies/hopes, dreams and goals; i.e. our internal life and these are not biologically neutral. There is considerable evidence that what we think about and imagine will have direct biological effects. Such

findings come from work on hypnosis and psychophysiological research areas (e.g. Buck, 1988; Rossi, 1989) and by research monitoring central biological changes, using techniques such as positron emission tomography (PET). PET allows blood flow in different brain areas to be monitored whilst the subject is directed to think or imagine in certain ways. Pardo *et al.* (1993) found that asking subjects to recall sad situations changed blood flow in inferior and orbital-frontal brain areas. Research also shows that psychological therapy can have powerful, central biological effects (e.g. Baxter *et al.*, 1992).

So thoughts, imaginations, recalled memories and therapy change physiology. It is also clear that the direction of influence moves from physiology to psychology. Head injury, various hormonal, viral and other illnesses change psychological variables. For major psychotic disorders, some depressions, and personality traits there is increasing evidence of possible genetic and neurochemical predisposition (McGuffin and Katz, 1989; Clements and Turpin, 1992). However, it is also clear that symptoms and vulnerabilities can be reduced via psychosocial interventions (e.g. Birchwood *et al.*, 1989; Birchwood and Tarrier, 1992). Yet despite this clear two-way interaction, there is, as Eisenberg (1986) notes, much in psychological and psychiatric theorizing that is either completely brainless or mindless.

SOME SOLUTIONS

Biopsychosocial Approaches

Clinical psychology can and does operate at many different levels and it can be perplexing to locate theories and therapies in this collage. There are two possible ways to reduce this fragmentation. First, clinical psychology could endorse the *biopsychosocial approach* (a less clumsy term might be *holistic*) more explicitly in training and practice. Indeed, we lag behind health psychology in this respect (Sarafino, 1994). The emergence of biopsychosocial approaches can be traced back to Adolf Meyer's contributions in psychobiological thinking at the turn of the century (Rutter, 1987), Alexander's (1939) efforts to develop psychosomatic medicine using psychodynamic theory for understanding physical illnesses, Engel's (1977) first clear statements on the biopsychosocial approach to heart disease, the emergence of behavioural medicine during the 1970s, and health psychology during the 1980s (Engel, 1987; Sarafino, 1994). These, together with the growth of fields like psychoneuroimmunology (which shows salient interactions between psychological, endo-

crine and the immune systems; Farrant and Perez, 1989) developmental neurobiology (Schorre, 1994) and evolutionary psychobiology (Henry and Stephens, 1977; Henry, 1982) all advance integrationist approaches of one form or another. Unfortunately, as impressive as these are they have not succeeded in firmly embedding biopsychosocial approaches within clinical psychology. Indeed, clinical psychology is still highly dualistic. For example, in considering the fact that personality difficulties in depression may respond poorly to psychological interventions and better to drugs, Shea *et al.* (1992) note how this is often seen as evidence that these may be more biologically based. For depression, there are still many who speak of 'biological depression' without any clear understanding what this actually means (Gilbert, 1992a). But of course all states of mind are biological, psychological and subject to cultural shaping at the same time (e.g. in some cultures depression is associated with major somatic symptoms, disorders like conversion hysteria are clearly related to historical-cultural contexts, and anorexia is known to be higher in contexts that value thinness; ballet schools). Few are aware of the implications for training and practice if we were to become truly biopsychosocial (Sadler and Hulgus, 1992).

Biopsychosocial approaches do no more nor less than address us to the endeavour of integrative thinking across various domains. Included are: *cultural values and economic opportunities; styles of family interactions; key social relationships; personal evaluations of self and others; biological state and target organ functioning* (e.g. specific synapses; Gilbert, 1992a). From ethology Hine (1987, 1989, 1992) developed a multi-process model (shown in Figure 1) for outlining various complex biopsychosocial interactions.

This model outlines the complex interactions between an individual's biological state, the nature of the relationships they seek, the type of relationships they elicit and form, and how all these are embedded in a socially scripted or prescribed set of patterns and values. These values influence the attributes for gaining or losing value in the eyes of others (shame and pride/acceptance). The type of model Hinde (1992) outlines could be a useful starting place for our science. Certainly, it is hoped that such models will become more widely known, discussed and used in training.

The biopsychosocial approach *is not a theory* however, but a framework (Hartmann, 1992; Sarafino, 1994). Indeed, there are many theories that can arise within such a framework to explain particular

types of interaction (e.g. cognitive, classical conditioning, psychoanalytic, top-down and bottom-up information processing). Although biopsychosocial approaches may seem like common sense, it is recognized that in practice many clinicians do not adhere to them (Vasile *et al.*, 1987). Whilst some approaches try to be biopsychosocial, like Lazarus' (1981) multimodal therapy of BASIC ID, they have not been generally adopted by clinical psychology and often fail to address issues of culture.

The point about this, of course, is that as psychologists we do not wish to be placed in situations where in order to make a case for psychosocial amplification of difficulty (e.g. by gender attitudes, socioeconomic status, high expressed emotion in families), and the importance of psychosocial intervention, we have to down play the physiological. This is to fall for brainless science (Eisenberg, 1986). Indeed, psychologists are concerned by the lack of biological understanding in our clinical practice (Gouldsmit and Gadd, 1991). We can so easily give the impression that we regard genes and brain biology as an irrelevance, mildly inconvenient or only something that medicine is concerned with. But thinking integratively, one calls forth the other, and having an interest in the biological dimension of suffering does not imply a search for rarefied diseases to underpin every biological variation. Although drugs and other physical procedures can be offered as cheap and easy solutions, this can be a mindless science, which worry psychologists, because drugs do not retrain, re-educate, solve social problems or suggest political agendas for prevention. But again an integrative approach does not ignore the role of genetic vulnerability to certain disorders, nor the role of neurochemistry, nor that some people obtain great relief from drugs, but rather suggests that a science of clinical psychology (unlike counselling or biomedicine) needs to understand the *interactions* between the social, psychological and the biological. So what we could state more clearly is not that we lack concern with the biological basis of suffering but our concern is with certain aspects of the disease paradigm and its potentially limiting conceptual framework via its (in practice) focus on the 'error' in the individual. Moreover, some psychological approaches to suffering, which stress irrational thinking, are not immune from the criticism of locating causes of suffering as 'errors' in individuals.

If the biopsychosocial approach is a framework, which lays stress on the interactions of various domains, rather than a specific theory, then what kind of theory might be useful to underpin this

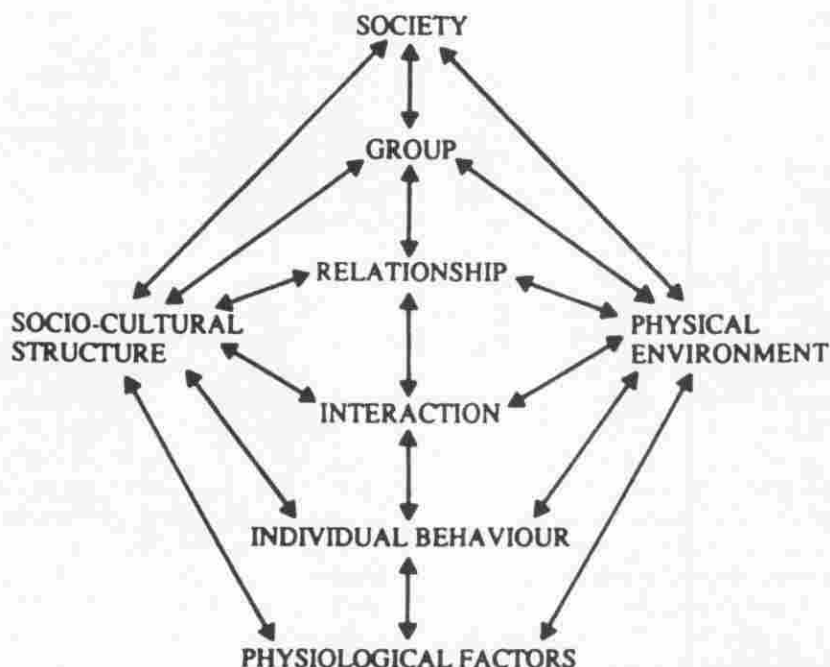


Figure 1. The dialectical relations between successive levels of social complexity (reprinted with kind permission, Hinde, 1992)

approach? My view is that evolution theory might help here. In order to move the biopsychosocial approach beyond a listing of correlations, or a deriving of flow diagrams between biological, (e.g. stress hormones) psychological (e.g. negative thoughts) and social variables (e.g. social support), we need a theory of why, for example, loss of social support impacts on stress hormones; or why an increase in stress might increase support seeking, or why grief can be such a painful, *felt* experience? An evolutionary theory may help us because, amongst other things, it posits that the brain evolved to be highly sensitive to the social domain. Once we recognize this then the links between the social domain and neurochemistry become more obvious and urgent to understand.

AN EVOLUTIONARY FOUNDATION TO THE BIOPSYCHOSOCIAL APPROACH

Although not all states labelled as abnormal necessarily reflect an error in a functioning system, but rather are adaptive responses to certain contexts and histories, there is value in recognizing that normal evolved functions can become dysfunctional. As mammals evolve, the evolutionary process some

times pays heavily for its advances. Thus, for example, the cost of an effective immune system, capable of protecting an animal from invading parasites and pathogens also becomes the source of autoimmune diseases. The cost of evolving cell replication and cell repair can become a source of cancer as errors in replication are made. In the psychological domain, the cost of evolving a system to alert to physical damage is pain. The cost of evolving an avoidance of danger system is anxiety, fear and terror. And the cost of evolving self-awareness gives rise to the existential fears of awareness of death and decay and also a sense of shame or pride in the self. Moreover, the evolution of self-awareness and other cognitive abilities, allows us to make complex attributions, judgements and predictions which, while advancing us as social beings, can also feed back on underlying affect systems, e.g. a belief that one is about to have a heart attack can activate panic (Beck *et al.*, 1985). No other animal, as far as we know, can do this.

An evolutionary theory for clinical psychology can anchor itself in the exploration of normal adaptive processes, or *core potentials*, (Buck, 1988; Gilbert, 1989) rather than the study of disease *per se*. Further, in addition to the study of (say) the cognitions that recruit or activate core potentials (e.g. for panic, sexual arousal) we need to address study to the

evolved core potentials that can get recruited. If we follow this line of thinking then our focus is on understanding basic adaptive designs of the human brain (Buck, 1988; Gardner, 1988; Edelman, 1992). Here concern is with both *how* the evolved brain processes information, and makes decisions about actions, and also *what* types of information are most salient.

Looking at the *how* question first, there is increasing evidence that humans have at least two partially independent ways of reaching decisions about important (often social) events. The first, called an experiential system (Epstein *et al.*, 1992; Epstein, 1994), seems to use heuristics, takes short cuts to reach conclusions quickly, uses crudely integrated information, is reliant on affect and how something feels, is preconscious and possibly relies on earlier experience and conditioned emotional responses. *Fast track* modes of functioning may be reliant on more primitive, earlier evolved appraisal-response systems, encoded in limbic and sub-limbic areas (MacLean, 1985; Bailey, 1987; Buck, 1988). The rational system, however, evolved more recently, is able to use logical deductive and symbolic forms of reasoning in a more conscious way, and is less influenced by past events and affects (Power and Brewin, 1991). In fact, there is increasing recognition that information can be processed in many different ways (e.g. fast-slow; emotional-rational; parallel-serial, conscious-unconscious; rigid-flexible; personal-non-personal; defensive-safe). Such theorizing and research is especially noted in the study of emotion and the role of cognition. Izard (1993) makes the point that DNA and computers are clearly information processing systems but can hardly be said to have cognitions. Thus, cognition and information processing are not the same thing.

Defence System(s) and Clinical Problems

A central point I would like to make is that it may be impossible to understand biopsychosocial interactions, especially those pertaining to psychopathology, without an understanding of evolved brain design or function. And because so many forms of suffering relate to how people detect and respond to threats and losses, we can start by using evolutionary theory to consider how the brain evolved to detect and respond to threats and losses and thus be more likely to 'switch in' or use, fast track processing systems. The detection and response(s) to threats and harms can be seen to operate through a loose co-assembly of affects, action tendencies and attentional mechanisms that may be called a defence

system (Gilbert, 1989, 1992a, 1993). The term system is not meant to imply a separate system existing some place in the brain, but rather a mode or modes of functioning.

The two most important types of harm are those which are directly harmful (punishments) and those of frustrative non-reward, loss and/or disappointment (Gray, 1987; Perrez and Reicherts, 1992; Gilbert, 1993). From an evolutionary point of view it is adaptive for the defence modes of functioning to be fast track and easily triggered and detect potential harms quickly (thus allowing for defence actions); that is, to work on a *better safe than sorry* principle. Running away (or taking defensive actions) when there is no need is a more adaptive error than failing to run when danger (e.g. a predator) actually exists. Understanding this bias of a system designed for better safe than sorry, or false positive detections, may be useful in considering the high rates of various states of suffering and psychopathy. A number of researchers have noted that common anxieties are (or have been in the past) evolutionary adaptive; such include fear of strangers, fear of negative social evaluation, animal and insect fears, and panic (Ohman, 1986; Marks, 1987). Disorders like hypochondriasis and agoraphobia can also be understood as involving heightened activity of a defensive, better safe than sorry system leading to constant vigilance and seeking reassurance or avoidance. But so too can certain aggressive disorders. The ease of activation of anxiety and aggression suggest heightened threat detections; the difference between them is the form of the threat and the chosen response.

Given that threats and harms (involving defensive processing) are often at the root of many forms of suffering, then the study of *how psychopathology is expressed* can profitably begin by exploring highly conserved, evolutionary stable forms of defensive behaviour. Indeed, evolution has provided a *menu of defensive responses* (e.g. to freeze/demobilize, run away, attack, seek out protectors), observable in many species, which can be activated rapidly for coping with threats (Beck *et al.*, 1985; Marks, 1987; Gilbert, 1989, 1993). Thus, many disorders can be seen as activated patterns of (primitive, limbic and sub-limbic) defensive behaviours, (e.g. phobias, various anxieties, aggression, depression) which once activated give rise to *felt experience* via affect (Tomkins, 1981; Buck, 1988). Accepting that we have these innate and primitive response potentials, the key question is whether they are always activated via a cognitive root (e.g. Beck *et al.*, 1985) or at times more directly (Marks, 1987; Izard, 1993).

This is an important question because; (a) *felt* experience can sometimes seem to be encapsulated against rational thinking; it is difficult to rationalize ourselves out of states of grief for example; and (b) the evolved brain does change its internal structure (e.g. via dendrite branching and changes in receptor density and/or sensitivity) with experience (e.g. of positive or punitive environments) during maturation (Schore, 1994). Indeed, despite our growing understanding of the various messenger systems of the brain (neurotransmitters, receptor types, ATP, etc.) there is evidence that psychosocial stresses in early life can have profound, long-term effects on endocrine and neurotransmitter systems with serious maturational consequences (Meyersburg and Post, 1979; Hofer, Reite and Field, 1985; Gabbard, 1992; Schore, 1994). New data suggests that psychosocial factors can interact with messenger RNA and DNA (Post, 1992; Schore, 1994). Thus, mind and body are essentially one, or at least sensitively interdependent, and it is only our conceptualizations that splits them.

Although few psychotherapies explore the implications of the biological basis of suffering, arising from experience (e.g. of a fast track defence system), classical conditioning theory does offer such a paradigm (Gray, 1987). Indeed, it can be used to understand psychoanalytic concepts such as self-objects (Gilbert, 1992a) and is particularly helpful in bridging biopsychosocial divides. Using a classical conditioning paradigm, Charney *et al.* (1993) suggested a comprehensive psychobiological model for the acquisition and maintenance of post-traumatic stress disorder—a model that could be applied to many trauma-based theories of psychopathology. If one adds to these findings the fact that, from an evolutionary point of view, the brain is designed for 'better safe than sorry' modes of functioning then the severity, ease of (re)activation and permanence of the effects of trauma become more obvious. Moreover, trauma can produce a generalized shift towards greater defensive activation (sometimes seen as a personality change). This can show itself in increased aggressiveness, impulsiveness, anxiety, mood swings, hiding away and so on. If trauma occurs early in life then defensive modes of functioning seem to get 'set-in', leading some people to experience an array of easily activated defensive responses (e.g. borderline personality difficulties). Moreover, although many theorists consider cohesive, integrated self-regulation a key to development (Kohut, 1977; Schore, 1994) it may be adaptive, under conditions of trauma and low safety, to forego such cohesiveness in self-regulation in favour of a

more segregated, less flexible, but fast reacting set of defensive responses.

Following Seligman's (1975) studies on the behavioural effects of confrontation with uncontrollable trauma, researchers have found that *lack of control* has many and various biological effects (Anisman, 1978; Anisman and Zacharko, 1982; Weiss and Simon, 1985). Loss of control clearly increases activation of the defensive mode(s) of functioning in many species and shows itself in a range of defensive affects and behaviours such as anxiety, aggression and depression. Work on learned helplessness has shown that once an animal has been exposed to uncontrollable traumatic events the biological state of the animal can be so changed that certain responses and learning may be impossible until that state changes (Seligman, 1975; Anisman and Zacharko, 1982). Learned helplessness has highlighted the reactivity of biological processes and state changes that occur from an animal's transactions with the environment. However, our lack of integrative models has allowed such findings to be of theoretical rather than practical interest. Very few psychosocial models of emotional suffering, or psychotherapies articulate the implications of working with disturbed or highly defensive biologies. Moreover *heightened* needs for control and a fear of losing control, especially in interpersonal situations, can give rise to authoritarian behaviour and agonistic interactions (Chance, personal communication).

Safeness and The Role of Social Investment

So the evidence suggests that there are various brain systems and pathways which allow fast track, defensive processing and action. However, if we explore *how* information is processed under conditions of *low or no-threat* and *high safeness* then it seems the mode of functioning is different. For example, children who feel safe (as opposed to threatened) are more explorative, appear happier, take more risks, are less self-focused, are more prosocial, and more creative and integrative in their problem solving (Eisenberg and Mussen, 1989; Isen, 1990). Whatever biological state pertains when children feel safe it seems clear the brain's maturation is effected by it (Schore, 1994).

To experience safeness infants and adults often require positive social inputs/signals/interactions and rewards (Bee, 1992; Schore, 1994). We can call these social *investments* (Trivers, 1985), because they signal a preparedness of the other (e.g. parent) to invest time, energy and resources in the relationship and an absence of threat. These seem to be important

in helping the child internalize a sense of safety/security (and thus be less reliant on fast track, defensive processing), a good/attractive and cohesive sense of self (Kohut, 1977; Gilbert, 1992a) and psychobiologically organize their emotional development (Schorer, 1994). So important are these signals that their absence may be enough to activate the defensive modes of functioning. Infants, for example, can become distressed if the care-giver presents a blank face and stops reciprocal interactions (Murray, 1988; Tronick, 1988), but (other things being equal) are happy and explorative when such signals exist. The child does not learn to be emotionally responsive to the attunement of the care-giver but (in the early stages) is biologically set up to monitor and coordinate responses to the care-giver and this plays a vital role in brain maturation (Schorer, 1994). The mutually pleasurable social exchanges of smiling, playful and attuned behaviours are not just a relationship of care-giver to care-seeker. The communication of pleasure and confidence in each others company, allows the child not only to feel safe and loved but also to feel *lovable*. It is the basis for companionable relating which is derived from mutual exchanges of positive affect (Heard and Lake, 1986; Schorer 1994).

In childhood and adult life signals of interpersonal or social investment take various verbal and non-verbal forms. These can include, social attention and interest, the friendly face, listening, approval, mirroring, reassurance, protection, empathizing, availability, support, voluntary giving and so forth. In general, there are many types of signal that send information that *one is valued by the other(s)*. When such signals are absent or lost there can be a switch to a more insecure, defensive state (Scheff, 1988). Feeling valued gives a certain confidence that one can exert control over important relationships, and reduces the expectation of attack or rejection/exclusion. Hence, safety arises from receiving social signals which reduce the sense of threat; i.e. that the self and other are not hostile and therefore unlikely to harm, coerce, deprive, take advantage or steal from each other. In therapy clients can go to great lengths to check out the safety of the therapist; e.g. asking questions, setting tests, and so forth.

Attending and responding to signals of acceptance and valuing may also use fast track systems. Frank (1982) and Kohut (1977) suggest that psychotherapy can be helpful because it delivers high levels of these types of positive valuing signals in the form of listening, encouraging, empathizing, mirroring, taking an interest in, and so forth. In fact, it may be the empathic and reassuring, nonverbal behaviour

of the therapist which provides clients with sufficient signals of safety and enables them to feel safe enough to reveal and explore painful, internal experiences (e.g. of shame or sexual abuse). This leads to a greater emphasis on the nonverbal, facial expressions and patterns of attunement between therapist and client as key variables in therapy, with the implication that those therapists who are poor at signalling reassurance in their nonverbal behaviour will have poorer outcomes (other things being equal) than those who are good at it. Indeed, the psychoanalyst, Kohut (1977) would not use the couch because he felt that patients needed to monitor the face and expressions of the therapist (Kahn, 1985). It may be that the safety and reassurance such relationships provide, allow for a more cohesive, integrated, self-regulatory pattern of internal organization, in contrast to the rather more segregated, fragmented defensive organization of the traumatized or shamed person.

Whether one looks at infant-parent interactions, lovers, friendships, families, or work organizations, positive social relationships are marked by high investments and valuing, and low threats (e.g. attacks, put-downs and criticisms). These are associated with hedonic patterns of social relating (Chance, 1984, 1988) happiness and health (Argyle, 1987) and effect biological processes (e.g. stress hormones and immune system functioning; Ornstein and Swencionis, 1990). Under conditions of low investment and high threat the brain seems to shift to more defensive modes of functioning involving; affect instability, self-centredness and a lack of care for others (Belsky *et al.*, 1990), and where defensive responses (e.g. flight/fight and inhibition of social exploration) are primed (Chance, 1984, 1988).

Evolution and Social Behaviour

We have looked at *how* the brain can process information (e.g. fast-slow, defensive-safe, rigid-flexible). We can now explore *what* are the most salient forms of social information that activate the defensive system or help us feel safe and secure. Whatever else we may say about an evolutionary approach, many of our basic motivations (e.g. for care, access to sexual partners, self-presentation, fear of shame, and social status) are linked to social outcomes and forms of social relating that are, or were, evolutionary meaningful. And because the brain evolved to be sensitive to these social outcomes, serious threats, disruptions or thwarting of these relationships (e.g. to early attachments) can have major biological effects (Henry and Stephens, 1977; Schorer, 1994). So,

in general, we tend to feel good when cared for, have a sense of belonging within a group, have access to friends, gain respect and prestige and find a mate. And we tend to work hard to achieve these things. Negative emotions, on the other hand, are often associated with not being cared for, feeling alienated from others—an outsider, losing or failing to obtain respect and not finding or losing a desired mate (Gilbert, 1989; Nesse, 1990); that is losing control over these evolutionary meaningful outcomes and social roles. Such a view also leads to a theory of the evolution of human needs for relatedness (e.g. for support, care, attachments, respect, closeness, status, freedom from terror, etc.; Gilbert, 1989; Birtchnell, 1993; Muran and Safran, 1993).

The evidence is increasing that many social motives have been shaped via the solution of certain (interpersonal) problems (e.g. care of young, gaining sexual access, belonging to a group). The psychological mechanisms that help guide our motivational and evaluative processes can be seen as the 'deep structures of the mind' (Buss, 1991; Barkow *et al.*, 1992; Slavin and Kriegman, 1992; Muran and Safran, 1993). These in turn give rise to certain forms of relating (e.g. attachment, friendship, dominate-subordinate), which although may vary from culture to culture are nonetheless recognizable and salient forms of relating in all cultures (A. T. Fiske, 1992).

Deep Structure as Archetype

In many ways this view is similar to Jung's (1972, 1954/1993) concept of *archetype*. He pointed out that the human mind has both a personal (ontogenetic) and collective (phylogenetic) aspect (Stevens, 1982). The collective or archetypal components are those we share with each other; that is they are the evolved psychological mechanisms of the mind which guide our behaviour in certain ways and have evolved (like the defence system) because they solved certain, adaptive problems. Moreover, archetypes develop, change, complexify and become integrated within a person via experience and can be a source of our desires and fantasies. In fact, social (A. T. Fiske, 1992); interpersonal (Kiesler, 1983; Horowitz and Vitkus, 1986; Birtchnell, 1993); personality (Buss, 1988; MacDonald, 1988; Millon, 1990); developmental (Bowlby, 1988; Bee, 1992); motivation (McClelland, 1985; Buck, 1988); evolutionary (Wenegrat, 1984; Gilbert, 1989; Archer, 1992; Barkow *et al.*, 1992; Tooby and Cosmides, 1992); and cognitive theorists (Safran and Segal, 1990) are all concerned with exploring and attempting to identify the basic,

collective forms of human nature and their development. Of course there is debate on what these are exactly, and the relative contributions of culture, but there is a clear understanding that humans are archetypally prepared to be 'humans' (rather than fish, rabbits or baboons) and require major social inputs to develop their potential. Indeed, brain maturation depends on the quality of social input (Schoore, 1994).

There are now major efforts to understand the *design features* of the brain; how and why it does what it does; or what it means to be a human being, reproducing in the way we do and forming the types of relationships we do. As soon as we recognize that evolved tendencies are mediated through psychobiologically flexible, developmental processes, and are influenced by contextual and environmental indicators of fitness/social success, then the old genetic determinism that sees culture and evolution as alternatives fades away (Hinde, 1987, 1992; MacDonald, 1988; Belsky *et al.*, 1990; Archer, 1992, personal communication; Edelman, 1992; Schoore, 1994).

The evolutionary approach to psychology begins by asking: what are the most common social problems that humans have evolved ways of recognizing and solving? (Buss, 1991)—and from this; what are the salient psychological (archetypal) mechanisms that have evolved for their solution? A rough classification, which while not comprehensive captures some of the more important, can be suggested as follows:

- (1) *Attachment*, involving the relationship of care giving and care eliciting. For example, a parent invests time, energy and other resources in the infant to increase the chances of their survival and subsequent reproduction.
- (2) *Mate selection* and sexual behaviour; involving attracting, being attracted to, courting, conception and mate retention.
- (3) *Formation of alliances*, involving, aggression inhibition, sharing, cooperation, affiliation, friendships, group living and reciprocal behaviour.
- (4) *Ranking behaviour*, involving direct competition for resources, gaining and maintaining rank/status (dominance/leader) and accommodation to those of higher rank (submission/follower).

The psychological (archetypal) mechanisms that have evolved for their solution can be seen to be comprised of at least three aspects. First, there must be some kind of motive system(s) to make these kinds of relationship matter (Buck, 1988). Second,

there must be strategies for solving these social problems (e.g. how to be sexually attractive, or how to gain status, how to act if status is attacked, or how to signal distress). Third, there must be information processing algorithms that enable the individual to work out how well or poorly they are doing in relationship to their efforts.

Biosocial Goals

In general psychologists are interested in understanding people's goals and the means they use to secure them (Oatley and Boulton, 1985). Many of our most salient goals and ambitions revolve around *biosocial goals, and needs for social success* derived from evolved social motives (e.g. to form attachments, find a sexual partner(s), belong to a group, gain status and avoid being inferior/shamed/rejected). A biosocial goal can be construed as *a motivation to create a certain form of relating between self and others*. Biosocial goals may be experienced as something one is aiming for (e.g. gain status, sex, care for a child). They show themselves in particular types of *social role*. Gardner (1988) also explored the idea that evolution has given rise to a propensity to form certain types of relationship (e.g. status, sexual, attachment) which are signalled and communicated in particular ways. Birtchnell (1993), who takes a different approach to that presented here, makes the point that we need to distinguish between relating to another, and another relating to the self (giving rise to either complimentary or anti-complementary interactions). Another distinction is between active and passive forms of relating. Moreover, not all the roles we adopt are biosocial goals, in the sense that one may be forced to enact a role against one's wishes. Some subordinate social roles are a case in point. There is a big difference between feeling happy for others to have authority over one and being forced into submissive-compliant roles.

From a review of the literature on social relating Gilbert (1989) suggested that some of our main biosocial goals are concerned with: *care eliciting and receiving, care giving, cooperating and sharing, and competing/ranking and gaining status*. A similar classification has been empirically derived from research on interpersonal problems (Barkham *et al.*, 1994). Following Shott's (1979) approach to emotion, these biosocial goals could be grouped into those which are self-focused and self-promoting and those which are other-focused and other-promoting.

Birtchnell (1993; personal communication) makes the point that biosocial goals are aimed at 'states of relatedness', and that the descriptions of care eliciting and competing run the risk of confounding

Table 1. Core social roles

	See self as	See other as
Care receiving	Obtaining inputs from other(s): care, protection, safety, reassurance	Source of: care, nurturance, protection, safety, reassurance
Care giving	Provider of: care, protection, safety, nurturance	Recipient of: care, protection, safety, nurturance
Cooperation	Of value to other, sharing, appreciating, contributing, affiliative	Valuing, contribution sharing, appreciating, affiliative
Competition/ rank	Contestant, status/rank, inferior-superior, hostile-attractive	Contestant, status/rank, inferior-superior, hostile-attractive

desired states of relatedness with the strategies used for obtaining them. This is an important point and so it should be emphasized that it is the motivational aspects that are central to biosocial goals rather than the strategies used to achieve them.

Leaving aside the issue of fulfilments of relating obtained via fantasy, biosocial goals (states of relatedness) can usually only be realized via social interactions and social roles. Thus, we can focus on evolutionary meaningful, core (archetypal) self-other relationships in terms of how the self and other(s) are construed and engaged. These are given in Table 1.

The inner world is thus made up of various models and ideals concerning self-other relationships (e.g. wanting to be cared for, loved, be accepted by a group, nurture others, obtain status, find a sexual partner who will not defect) and thus indicates needs, and potential threats, frustrations and disappointments.

Strategies

Strategies are the ways and means (the what to do's) of creating desired social relationships (states of relatedness). Some of these do seem evolutionary shaped (e.g. courting behaviour, threat displays) but in humans they are highly flexible to allow for contextual learning. Thus, humans can formulate plans and consciously choose to follow them to obtain goals (e.g. studying for a degree to obtain a desired employment and its rewards/status). In pursuing any of the above biosocial goals and thus enacting a role, one might use various strategies and sub-goals. For example, to gain status I might work hard and

try to elicit people's respect or admiration of my work. I might try to show how helpful I am to others and win admiration that way. Or I might cheat and try to deceive others, or I might threaten others into making me top dog. Thus aggression, deception, appeasement, altruism etc., might all be strategies to get to my goal of gaining status. If my status is threatened I might become defensively anxious or aggressive—even against my conscious wishes. Gilbert (1992a) has reviewed the evidence suggestive of two basic types of (not necessarily exclusive) competitive strategy; (a) hostile, intimidating (non-affiliative) and (b) seeking to be attractive and chosen by others (affiliative).

If my goal is caring for others, I might develop my evolved potential for empathy, have children, or seek out relationships where I can give to (invest in) others (other-focused roles). If I am successful I would have the experience of reaching my biosocial goal, creating the desired self-other role, with the desired exchange of social (rewarding) signals. This would be associated with positive affect. The use of a strategy may become rewarding because of anticipated success in achieving a goal.

We can see then that some strategies and behaviours associated with biosocial goals are in fact deceptions. For example, I might care for others, or cooperate, not because of a *genuine* concern and desire/motivation to help or share, but because this gives me some status in the eyes of others, is more focused on making me feel good rather than the other, avoids guilt, or offers a potential long-term competitive advantage (e.g. gaining status in medicine). I might even feign a need for care. There is also the question of how conscious we may be of such deceptions.

Algorithms

These represent information processing routines (Cosmides and Tooby, 1992). They are the components which help direct attention mechanisms and reasoning; that is how *information is evaluated vis-à-vis* the goal that is being pursued. Moreover, it is possible that some evolved algorithms may also be *fast track*; i.e. jumping to conclusions. Typical social algorithms are concerned with *proximity-distance*, (e.g. the infant becomes alarmed by too much distance from a care-giver) *reciprocation* (e.g. an individual becomes frustrated, angry or dysphoric by a judgement of giving out a lot but receiving too little back from others), and *social comparisons* (e.g. of same-different as in ingroup-outgroup, and inferior-superior as in social ranking). Some algorithms will change with cognitive-emotional

maturation; e.g. as a child matures he/she may become less alarmed by distance from a care-giver (Kagan, 1984).

Cosmides and Tooby (1992) have shown that humans can utilize evaluative routines that do not follow logical inference. For example, they found that people use heuristics, rather than logical inferences, for the detection of cheating. Judgements of rank, dominance and status, are often made very quickly (Kalma, 1991). This may be due to fast track, evolved algorithms to avoid eliciting aggression from more dominant individuals. So often, the way we reason socially, is not on the basis of logical inference (Zajonc, 1980, 1984; Izard, 1993), nor may we be conscious of our thinking/reasoning/algorithms (Nisbett and Wilson, 1977). This knowledge would seem to be essential to those who use logical inference and evidence testing as a treatment technique. It may help explain why 'looking at the evidence' can be very difficult, especially in certain states of mind. To use logical evidence alone, we may be trying to get a slow track conscious, rational mode of functioning to change a fast track unconscious one (Epstein, 1994). This may be quite difficult to do, as fast track systems (those set up for rapid responding) may, to some extent, be encapsulated from logical inferences (Gilbert, 1989) and work on the better safe than sorry principle. Moreover, it is commonly recognized that once we are in a particular state of mind (e.g. of grief, rage) rational thinking can have a limited impact on these feeling states.

So in summary we can distinguish between: what kind of relationship(s) a person is attempting to create (and why); the ways they are going about it; and how they evaluate themselves, others and their actions in the roles sought. Moreover, brought down to basics we can see others as either helpful/investing (positive), neutral or frustrating/harmful (negative). Equally we can see ourselves as, helpful/investing, neutral or frustrating/harmful to others (for example, when caring for someone I might wish to see myself as helpful, but when competing wish to see myself as good at frustrating the other—winning and/or getting my own way). When it comes to threats, conflicts and losses, it may be that at times our more rational, slow track mode of functioning loses out to the fast track, better safe than sorry, defensive mode of functioning which uses more primitive repertoires and is more automatic. As a result all kinds of unwanted affects, behaviours and cognitions become activated. These in turn may become the source of new information effecting the perceived probability of creating a desired self-other relationship (e.g. nobody will like

me if I express my anger; I am a weak person to be this anxious).

Cognitive Schema or Mentalities?

Cognitive psychotherapy has become interested in evolution theory (e.g. Beck *et al.*, 1985, 1990) and there are exciting new concepts like *interpersonal schema* (Guidano and Liotti, 1983; Muran and Safran, 1993) which suggest that the potential for various forms of relating are in part biologically 'wired in'. However, there can be a lack of clarity on the distinction between innate motive systems (like attachment, or status seeking), strategies, (e.g. deception) and algorithms (e.g. social comparison). And unlike Muran and Safran (1993) the argument here is that the core aspects of many strategies and algorithms are not all purely learnt, although are modified by learning. Another central difference between the current cognitive use of evolutionary theory and the views outlined here is that it is important to distinguish between defence and safety, which are general systems and modes of brain functioning (from which affects like anxiety and anger, moods, and action tendencies arise) and specific social role creating mechanisms. Thus, anxiety, for example, *can be recruited into many types of social role*. We can become anxious if our child is vulnerable, if we are about to enter a situation where our performance will be evaluated, or if we think our lover is about to defect. And because the defensive modes of functioning can have general effects then at times a trauma can lead to the experience of a multitude of unrelated anxieties—and we speak of a general loss of confidence.

Because a state of mind often involves combinations of motives, affects, and evaluations Gilbert (1989, 1992a) suggested the term *mentality* to depict these combinations in particular states of mind. Hence, it is legitimate to speak of (say) a competitive mentality (involving strong motives to gain status and win conflicts; thinking in terms of winner-loser, inferior-superior, dominant-subordinate), or a caring mentality (involving empathy, sympathy and compassion, and a focus on the needs of the other). In narcissistic people there is a high degree of competitiveness, noted in their motives to be better than others and easily shamed and/or enraged by attacks on status (defensive responses to put-down) and an underdevelopment of caring and cooperation. Indeed, various approaches to psychopathology suggest that problems arise when a person engages in certain self-other relationships either too much or too little. E.g. too much submission might be in-

involved in depression; or as noted here, too much dominance and too little care of others in narcissistic and psychopathic disorders (see, Kiesler, 1983; Horowitz and Vitkus, 1986; Blackburn, 1988; Beck *et al.*, 1990; Birtchnell, 1993; Barkham *et al.*, 1994).

A problem with some cognitive concepts like schema is that there is a tendency to translate motives into cognitions (e.g. I must be the best) and thus lose sight of the, 'in the body experience'. This runs the risk of disconnecting affect from cognition and thereby down-playing the feeling state (automatic activation of rage and/or anxiety) and fantasies that arise from the thwarting of some of these motives. Yet many therapists recognize that simply trying to change cognition without an empathic approach that connects with the felt experience of the person is limited (Greenberg and Safran, 1987). Of course, change often comes from re-evaluations and changing meanings, but the way this is achieved and understood can be via the therapists working with affect in a non-threatening (safe and reassuring) way, and where nonverbal behaviour plays a crucial role.

As people grow older their mentalities may mature, due in part to internal biologically mediated processes. So they may gradually become less competitive, less dependent, more empathic and so forth. Cognitive change may be as much a consequence as a cause. This suggests a changing, developing internal patterning of these mentalities and thus a changing pattern of beliefs and styles of reasoning. As Jung (1954/1993) noted we sometimes overcome our fears and problems by growing/maturing out of them (see also Emery, 1993; Mahoney, 1990). Developing empathy for others, for example, can be a major help in reducing our ego-centric fears. We may become less anxious in social situations, not only because we become better at 'looking at the evidence', but also because we become less centred on the need to create a good/great impression.

So to bring us back to our main theme we can suggest that via evolution we have innate propensities to create certain types of relationship, such as being cared for, caring for others, cooperating, and having status/rank. Moreover, we have a variety of strategies and competencies (e.g. deception, empathy) for achieving goals, a variety of (possibly) fast track information processing routines for indicating success or failure in these roles and responding quickly to conflicts, threats and frustrations. Previous history, maturation, and current mental states, change these fast track systems. For example, developmental contexts are important in the develop-

ment of prosocial, cooperative and caring behaviour (Eisenberg and Mussen, 1989). When under stress or when depressed one might become more prone to seeing mild criticism as a major put-down, or rejection. Or when feeling happy we may be more inclined to give to others and attend to their needs.

MENTALITIES AND PHYSIOLOGY

Physiology and Attachment

An evolutionary theory underpinning a biopsychosocial approach should be able to show how changes in certain types of relationship are biologically disruptive; and not just in humans. It should be able to build bridges between the biological and the social basis of suffering. To date the most clearly researched evolutionary theory has been that of attachment theory (Bowlby, 1969, 1973, 1980), which has been extraordinarily helpful in understanding these links. It states clearly that the motive to form attachments is observable in many species and evolved to provide protection and support to young. Threats, frustrations and disruptions to attachment relationships have salient psychobiological effects (Hofer, 1984; Reite and Field, 1985; Schore, 1994). In humans, schema or internal working models of attachment arise out of an *a priori* evolved motivational system that is wired in (Liotti, 1988, 1993; Muran and Safran, 1993). Acquired beliefs do not create this motive system but do regulate how it is used, how it matures and how it becomes integrated within a personality.

Attachment is also an excellent example of how an evolved motive system can, via development, be regulated by different strategies and threat sensitivities. Styles or strategies of attachment include secure, anxious-threatened, avoidant and ambivalent (Sroufe and Fleeson, 1986). Each may give rise to different patterns of psychopathology (Liotti, 1988, 1993). For example, anxious attachment has been found to be associated with increased fear of loss and disruption to close relationships, increased proximity and reassurance seeking, and heightened separation protest (such as resentment and anxiety to separation; West *et al.*, 1993). Some see psychopathology as arising from particular types of internal representations of attachments (e.g. trust, availability; Guidano and Liotti, 1983; Safran and Segal, 1990). There is also increasing evidence that some forms of vulnerability are intergenerationally transmitted via rearing patterns (Belsky *et al.*, 1990; Diamond and Doane, 1994), and as we have stressed here this will be as much a biological shaping as a

psychological one. Thus our psychobiological flexibility and developmental dependencies are a two-edged sword. However, care giving and care receiving roles are not identical with attachment (e.g. we can obtain help/care from people we have no attachment relationship with, and form attachments with others who care rather little). It may also be the case that being cared for provides a sense of safeness but it is the mutuality of positive exchanges, mirroring and sharing that give rise to a 'good sense of self'—which is more in the cooperative domain. Indeed too much care receiving in adults can lead to feelings of inferiority/shame dependency.

Physiology and Social Rank

There is no doubt that care giving and care receiving relationships are complex and biologically powerful. Moreover, the way we are cared for and mirrored can have a major impact on the maturation of our ability to care for and value ourselves and others (MacDonald, 1988; Belsky *et al.*, 1990; Schore, 1994). Another social role is cooperation and group/team interactions involving: identification with a group(s), forming friendships, affiliation, a sense of belonging, sharing and same-different social comparisons (Wenegrat, 1984; Heard and Lake, 1986; Argyle, 1991; A. T. Fiske, 1992). However, while a lack of care or sharing can have major effects on our mental states, probably the most important pathogenic social roles arise from interpersonal control and how this emerges in rank/status (social hierarchy). Indeed, it may be lack of (early) care or mirroring which orientates the self towards being overly competitive, controlling and/or submissive.

The roles of social rank and conflicts of power and status are seen as central human roles in social theory (Scheff, 1988; A. T. Fiske, 1992), interpersonal theory (Leary, 1957; Horowitz and Vitkus, 1986; Birtchnell, 1993) anthropology (Barkow, 1980) and evolution theory (Price, 1972; Price and Sloman, 1987; Gilbert, 1992a). From these roles are derived the issues of shame-pride, authority, status, power, envy, and the social comparisons of interior-superior, dominant-subordinate.

The idea that some states of psychopathology relate to social competition, positions and changes in social ranks was first put forward by Price (1972, 1988, 1989) and in a different way is suggested by feminist theory (Ussher, 1991). It is now known that the social variations of rank (e.g. between dominant and subordinate) are associated with different behaviours and biological states (Henry and Stephens,

1977; Henry, 1982; Sapolsky, 1989, 1990a, b; Price *et al.*, 1994). Moreover, there might also be differences between secure and insecure dominant animals (e.g. the latter being more aggressive, with higher levels of stress hormones) and secure and insecure subordinates (Sapolsky, 1990a,b). Gilbert (1992a) suggested a distinction between voluntary and involuntary subordinate positions. For example, voluntary subordinate positions might pertain to a teacher-student relationship, or any relationship where a person feels secure with others being in leader positions, and can rely on them (but not necessarily wish to form a close attachment with them). Involuntary subordination is being in a one-down position against one's will. It is somehow enforced and can be associated with an acute sense of feeling inferior to others, defeated, vulnerable to other's attacks, put-downs, marginalized, thwarted in aspiration and trapped.

MENTALITIES AND SOCIO-CULTURAL VALUES

Whatever evolved, archetypal potentials or mentalities we have for creating social roles they mature and are played out within developmental and social contexts. Humans are born into highly developed cultural systems which give us our values, influence the definitions of interactional practices and effect high level cognitions (Sperry, 1993). Cronen *et al.* (1982) and Pearce (1989) have explored the relationship between higher order organizing scripts and scheme for meaning-making and behaviour. They

Table 2. Hierarchically organized meanings. (Adapted from Cronen *et al.*, 1982)

Cultural patterns and scripts—are the broad patterns of socially shared discourses that define relational patterns. These patterns locate and educate human experience in the cultural context and legitimize ways of knowing, defining and acting. Gender scripts are located here for example

Life scripts—are the various repertoires of actions, goals and beliefs that make up a person's sense of self. In this sense they are owned by the person

Relationships—refer to the collective 'we', of interacting persons; they are interpersonal exchanges

Episodes—refer to communication routines that persons view as wholes

Speech acts or communication acts—refer to the actual things people do or say to each other

Content—refers to the information that is communicable

depict various levels in the organization of the construction of meaning and social behaviour. Hannah and McAdam (1991) and McAdam and Hannah, (1991) have outlined some new developments of this model and how it can be used in clinical work (see Table 2).

The concept of a 'script' is very important since it contains definitions that exist in advance of any specific behaviour. For example, the ideas that, 'men should hide their feelings', or 'women should care for others' or 'psychologists should adopt the scientist-practitioner model' are all cultural scripts and/or rules that in part defines manhood, womanhood or psychologist, and in part defines (and legitimizes) what men, women and psychologists should do (feel and believe) if they are to view themselves and be viewed as, good representatives of the 'class' they exist within. It thereby also gives rise to self-definitions (Baumeister, 1982) and sources of shame and pride. Thus it indicates what is feared, and what frustrates. For example, the script 'men should not cry', (or it is shameful to cry) is a clear instruction not to activate care eliciting, self-other roles; that one should cope alone without needing reassurance or support for emotional pain (see Meth and Pasick, 1990; Tejirian, 1990).

The social control of behaviour and self-identity via shame is powerful (Scheff, 1988). Being devalued, shamed and labelled as inferior or worthless has the effect of locating the self in a *low status, marginalized position* with a reduced flow of social valuing signals and an increase in harms (e.g. increased rejections, put-downs, and reduced control). *Shame strikes right at the heart of our sense of investment worthiness and our sense of value*, and thus our sense of control over advantageous social outcomes (Kaufman, 1989). It can generate both social avoidance and violence (Miedzian, 1992; Gilbert, 1994). But of course, shame, honour and pride are also social constructs and what is shaming in one culture, or context may not be in another. So the potential for shame is archetypal but the location of the *judgements* and scripts for shame, honour and pride are in the culture not the gene.

Cultural values and practices also define domains of opportunity. Here we can address the issues of competing/ranking (involving concerns with patriarchy, and the processes of empowering or subordinating and devaluing others). These are central arenas where *external conflicts* of interest occur. Such forms of relating can be found in families, groups and the culture at large. Patterns of resource distribution (economic relations) play a key role in creating such conflicts and there is now evidence that

ecological factors have major effects on such relationships for both human and non-human primates (e.g. Power, 1991). Economic relationships do much to create ranked social structures of haves, have nots and have lots, open or close down opportunities, and alter vulnerabilities at different social rank positions (Jenkins *et al.*, 1991; Wilkinson, 1992; Adler *et al.*, 1994). This is evidenced by the fact that although some suggest no linkage of socio-economic class (SES) and depression (Smith and Weissman 1991) others suggest that mental and physical health are linked to SES. For example, some studies suggest a six-fold increase in risk of depression between the highest and lowest SES groups (Adler *et al.*, 1994). What also seems to be clear is that rates of depression are increasing, especially in young males (who are also seeing increasing rates of suicide), but this is not the case in all cultures (Klerman and Weissman, 1989). What is often missing from the ideas on why this is happening is concern with the shift in power and competitive behaviours, and the processes and meaning of subordination and marginalization, shame and contempt in our society.

It is via economics (and the emergence of structured hierarchies that amplify variation) that we have, over the last few thousand years, engaged in the division of labour and the subjugation of classes of people (women, children and ethnic minorities) to fit profit maximization and ownership (Gilbert, 1989). So there is a link *between cultural values, economic relationships, sources of threat, construction of self-identities, archetypal roles and biology*. In certain situations to be in a subordinate position spells long-term trouble because it is often a position of high threats, low investments and intense frustrations, and where the defensive modes of functioning can predominate. If we explore this a little further we can note that culturally scripted roles are also carriers of political ideologies which are embedded in many (often incompatible) assumptions about human psychology, human needs and human nature (Plant, 1991). Capitalist economics is designed to produce competition (non-egalitarian relationships) and thus winners and losers (Galbraith, 1987; Keegan, 1993). The dark side of capitalism is therefore as a system foraged from persecution (fear of losing out, being subordinated and dis-empowered, and needing to get ahead of others). This creates a value system of need for personal accumulations and an amplification of individualistic competitiveness rather than cooperation and sharing (Gilbert, 1989). This may be good for business but not for mental health. In this competitive arena it is always the weak/subordinate (those

without the power to accumulate) who will lose out to the strong/dominant, for the weak have fewer options to protect themselves. The breakdown of family life, and the increases in social tension under the stresses of economic change, as jobs disappear, communities fragment and houses are repossessed, constitute major sources of threat/harm. These threats/harms and reductions in control will not be equally distributed throughout society but will often fall more heavily on those who have been subordinated. It may be this that accounts, at least in part, for the class difference in conditions such as depression. Interestingly, it does not seem to be so much the absolute levels of poverty that are associated with health indices but the distribution of inequality (i.e. degree of rank variation; Wilkinson, 1992).

The biopsychosocial model calls on us to navigate in many different seas of knowledge, and at the cultural level invites questions like: 'What kinds of threats, frustrations and securities do cultures create and permit?' And 'do the threats that arise from cultural interactions and discourses have any connection to some of the older sources of threats that have been part of our long evolutionary history?' If they do then culture and biology are immediately linked. Here we can go back to thinking of evolved role possibilities, such as for attachment, cooperation, mate selection and social ranking and consider how cultures give form to their expression and activates or thwarts them. So at every place we are confronted with the need to overcome our dualities and splits (mind-body, mad-bad, social-biological, illness-personality) in our thinking.

AN EVOLUTIONARY APPROACH TO PSYCHOTHERAPY

Having explored how evolutionary theory can help us link the social with the biological we can now turn our attention to some implications for therapy. This approach does not suggest any new therapy but does highlight some central issues. It highlights the importance of cultural values especially those of shaming, the role of self-other relationships (rather than just internal schema of self) and that these are evolutionary meaningful (e.g. see Bailey *et al.*, 1992). It also suggests that states of suffering are often related to the effects of the defensive modes of functioning, over which the person feels they have little control. Some people are keen to make relationships but feel too anxious to do so; others would like to be laid-back and caring but find that in conflict situations they can become moody or aggressive. Being

thwarted or trapped and not able to meet a major challenge, or get away from an aversive situation or relationship, a person may become unintentionally depressed. As Jung (1954/1993) points out psychotherapy often involves various issues: sharing things that have been hidden because of shame; being educated into new ways of thinking and reasoning; developing understanding and insight about the self; being prepared to face fears and terrors; and maturation, growth and individuation. Although we cannot explore all the implications of following an evolutionary approach to psychotherapy here, some of these include the following.

A Failure in the Development of a Biosocial Goal/Motive

Sometimes it is easier to help people re-adjust their strategies rather than their biosocial goals and motives. For example, of two men in therapy, one tended to become aggressive and jealous, but very much wanted to find a way to develop more intimate and rewarding relationships. His therapy proved more straightforward than for the other man in whom it was difficult to elicit any real interest in closeness and intimacy. All he seemed to want was for others to obey him and had little interest in caring for others.

Rational, problem solving interventions may be more effective if the person has the desire and maturation competency to understand and enact new self-other roles. If not then one is working at a more archetypal level and this may involve far more affect, utilize the therapeutic relationship more and be more dependent on maturation (e.g. for reflection, empathy). Sometimes it is very difficult to know whether a person is simply afraid of forming certain types of relationship or whether they lack the capacity for them. So this does raise a whole set of questions about the process of maturation in therapy (Kegan, 1982; Mahoney, 1990; Gonçalves and Ivey, 1993) the distortions and blocks of maturation due to early life, and not expecting people to change faster than their maturational level allows.

A major challenge, which few have found the answer to, is developing care giving and cooperative mentalities (involving empathy, self-sacrifice and compassion for others) in someone who is very self-focused and distrustful (e.g. anti-social personality disorder). Indeed, most individual-based psychotherapies are sought out and focus on how a person can help *themselves* to function better (be less depressed, anxious, more assertive), rather than how they can be more caring of others, especially if they

have little interest in doing so. It is not surprising that this is the case because ours is a rather competitive culture that emphasizes self-reliance, individuality and autonomy.

Changing and Mourning Goals

At times a person may need to learn how to give up a goal, aspiration or ideal or at least reduce its importance (e.g. to be the best, be beyond criticism, be perfect, or always be loved). In so doing they may need to mourn its passing and face that which threatens or frustrates. Although this is, to some extent, captured by cognitive and rational emotive therapy ideas of 'giving up the musts', these fail to address the grief and mourning that can be involved; that is the emotional work. Yet identifying key disappointments and facilitating grief can be central to therapy (Gut, 1989; Gilbert, 1992b; Klerman and Weissman, 1993). A patient who was perfectionistic and self-blaming made progress when she was able to grieve for the fact that her parents could never acknowledge or love her in the way she wanted and that pursuing this goal was 'ripping her apart'. By helping her go through this painful process of acknowledging and grieving she was able to mature in other ways. But grief is an archetypal, stage-related process (involving anger, denial, fear and sadness etc.). The resentful tearfulness of someone focused on injustice and how unfair it is, is different from the sad tearfulness that can emerge when people work with the deep experience of loss. Grief can be healing if the person is able to move through it, (learn to give up things) rather than avoid it, or remain stuck in resentment (which can be an involuntary subordinate position). It is a sensitive process of letting go of the unobtainable and changing life goals. Moreover, if someone has been depressed for a long time, or trapped in an unfavourable situation, as they recover and change they can grieve the 'lost years'. This should be clearly distinguished from the depression itself.

This process is at its most acute when someone is trying to come to terms with serious mental illness (Appelo *et al.*, 1994; Atkinson, 1994; Birchwood and Chadwick, personal communication). When such an illness strikes it can cause such a massive collapse of hopes, ideals and aspirations (e.g. of having a successful sexual or family life, having a career, gaining status in society) and ignite feelings of shame, inferiority and isolation, that it is vital to address the grief issue and see it as a *process* of working through. It may be helped by interaction with other sufferers which allows the person to form allies/kinships

with like others, rather than feeling alone and 'the only one'. Seeing how others cope and gaining their support can instil hope. The value of these social relationships may be difficult to substitute with individual therapy, working with cognitions alone.

Facing the Bad

Shame, envy, rage, fear, vulnerability, weakness, are all archetypal (often defensive) experiences written about through the centuries and in many cultures. We often run from, conceal, avoid or compensate for them rather than face them, and they can haunt us in our dreams. The terror of shame (the loss of the good self) powers social anxiety, the concealment of sexual abuse, some depressions and narcissistic rage. The healing of these things may come not only from re-evaluating them as part of potential human experience, gradual exposure and desensitization, distinguishing self and behavioural judgements, but in being with others (e.g. therapists, fellow sufferers) who acknowledge, accept and continue to send signals of valuing to the person (i.e. acting as a safe container). As one client said, 'I know how to say the right things, to keep me out of trouble, but not the real things'. Making the therapeutic relationship safe enough to explore what he really felt, and overcome the fear of expressing it, was a key to change. Although classical psychoanalysis prides itself in being able to dig into these aspects of ourselves it can, via its neutrality, be shaming rather than valuing. Indeed, this is why Kohut (1977) set out on another path (Eagle, 1987) which urged giving direct signals of approval, acceptance and reassurance.

As noted above, sometimes shaming is often located in cultural values (e.g. men should hide their feelings, depression is a weakness). Thus psychotherapy is not only about engaging with people's personal sense of shame but also about changing values. At times this involves a reappraisal of those who have done the shaming (Bergner, 1987). As Sperry (1993) points out, changing cognitions and meaning involves changing values. Moreover, shame and humiliation should never be used as a therapeutic or corrective device as can happen in some penal and male-dominated institutions. This is likely to activate counter resentment (even if hidden), a sense of inferiority and fail to develop care for others (Gilbert, 1994).

External Conflicts

There is increasing recognition that external disputes/conflicts are often central in distressed states of mind. An evolutionary approach suggests that

many types of threat and harm arise from *conflicts of interest* between individuals and groups (Trivers, 1985; Slavin and Kriegman, 1992; Sloman *et al*, 1994). Although disappointment and frustration are part of life, we can learn to ascribe importance to them and how to cope. For example, the attitude of detachment in Buddhist theories of mind (Crook, 1980) is in some respects a way of avoiding the negative effects of disappointment and frustration (such as depression, aggression, striving etc.) arising from our natural tendency to become overly attached to things in the world. We can also learn ways of resolving disputes (Klerman and Weissman, 1993).

Internal Conflicts

While it is often psychoanalytic models that are associated with exploring internal conflicts, cognitive (Freeman, 1993; Emery, 1993) cognitive analytic (Ryle, 1990) and interpersonal therapy (Benjamin, 1993; Klerman and Weissman, 1993) recognize that conflicts and dilemmas are central to many difficulties (e.g. whether to care for myself or others; whether to trust or not, whether to give in or contest). There can also be conflicts in the defence system itself (e.g. being frightened of one's own destructive anger, or being angered/frustrated by one's own fear).

At times one biosocial goal can block/conflict with another, because to seek one increases threat and defensive behaviour from another. For example, the compulsively self-reliant may be very resistant to care receiving. If they are in touch with needs to be cared for and close to others, it can create great (defensive) anxiety of being dominated or abused, or giving the other person too much insight into vulnerability. One may find in the history of the attachment relations a story of neglect or abuse and a betrayal of trust. Melges and Schwartz, (1989) suggest that borderline personality problems arise from such conflicts where to be close threatens with fear of abuse and domination by the other, but to defend self via distance from others threatens with abandonment and aloneness. Alternatively, a person may believe (perhaps as a result of gender learning) that care receiving, asking for help or expressing certain affects of the care eliciting systems (e.g. crying, expressing and acknowledging vulnerability, and pining for someone to be close and supportive) threatens their goals of maintaining status and a sense of independence; that is, to express these care needing behaviours is seen as shaming and a sign of weakness. In this manner one goal (to gain/maintain status, be respected) blocks out another (e.g. of

creating close emotional support, sharing pain). Yet again some people believe that to be assertive of their own needs will result in rejection and termination of attachments, or they may be riddled with guilt of not being caring enough. Fisher *et al.* (1982) found that fear of loss of status (shame) could inhibit care and help seeking. A patient thought that help seeking was a sign of weakness, that he did not deserve to be cared for, and others would be unreliable and shaming. Tice and Baumeister (1985) found that concern with a masculine status-image could inhibit care giving. So although, by virtue of our evolution, there are various archetypal goals and strategies available to us, attitudes, social learning and contexts play a major role in how they mature and/or are used in any one person. And as indicated, enacting one may threaten another.

Mismatch Between Goals and Strategies

At times goals and strategies seem not to match up. For example, a person believed that being successful, taking control of situations and getting ahead would help him get closer to others (be a desired, helpful, attractive person). He became dismayed and perplexed that at times his competitive (centre of attention) controlling attitude elicited envy and hostility from others instead. Thus, helping a person understand that (say) the strategies for closeness may involve non-competitive behaviour, sharing, owning up to vulnerabilities, letting others go first, not always jumping in to take the lead or take over, and so forth can be helpful.

CONCLUSION

This paper has attempted to further the agenda for integrationist thinking (Hinde, 1992). Exploring how evolutionary theory can help us suggests the following.

(1) Human nature is not a blank sheet on which anything can be written. Flexible it may be but not absolutely so. There are core, archetypal potentials for dealing with threats and frustrations. These core potentials are not created by cognitions or cultures, but are certainly recruited, modified, amplified or distorted by them.

(2) Some of our defensive responses (e.g. anger and anxiety) are experienced as fast and automatic, and this is partly because they were designed to be so. Trauma and stress seem able to shift us towards a generalized defensive mode of functioning where a

certain cohesion in self is lost and we respond in a more fragmented way. In these modes of functioning we can experience changes in our threshold for anxiety, anger and mood swings.

(3) We can separate modes of functioning concerned with defence and safety, from particular social role creating and motivational systems—biosocial goals. These can loosely be divided into self-focused and other-focused. These are, in part, archetypal.

(4) Maturation and experience play central roles in how biosocial goals are actualized and become part of a person's style of functioning. Some, such as competitiveness, can be so amplified that the person only feels good in winning situations, and his/her empathy and compassion for others is notably absent or underdeveloped. They may also become very controlling of self and others.

(5) Much in psychopathology represents problems in the resolution of conflicts. Sometimes these are internal conflicts, splits, or dilemmas. We can try to do different things at the same time (e.g. show our independence, win conflicts, be seen as strong, yet also wish to form caring/protective relationships where we can be vulnerable). Sometimes our disappointments and frustrations are directed at ourselves, sometimes at others. The process of grief and maturation are often central for change.

(6) Conflicts of interest arise in external relationships, including early attachment (Trivers, 1985), sibling and friendships. In society, economic and socio-political theory is directed at recognizing and solving conflicts. Sometimes this gives advantage to a few and disadvantages many. Thus some forms of pathology arise as defensive modes of functioning from experiences of being trapped, persecuted, oppressed, put-down and subordinated. The segregation, displacement and subordination of large sections of society, in its pursuit of competitive goals and ideals, can spell trouble for many, in part because it creates so many losers. If we lift the horizon of our thinking beyond the symptom, and beyond the individual person and family, to study human misery and suffering world-wide, be it via famine, war, the spread of disease (e.g. AIDS), or the processes by which individuals are subordinated and dis-empowered, then even a cursory glance shows the enormous power of social organization and social policy in their creation (Sen, 1993). It seems unlikely we will be able to make many inroads into these domains without social changes. Any truly integrative clinical psychology must address these issues to avoid an over-focus on the individual as a decontextualized being.

Although the biopsychosocial approach has difficulties when applied to practice (Sadler and Hulgus, 1992), the next decade will call on us to develop more complex theory and practice to avoid the growing fragmentation between disciplines and within disciplines. The division of mind and body, carved up between the sciences and professions, shows itself starkly in the absence of good biopsychosocial research. Mindless biological thinkers are fond of 'discovering' biological variation associated with various conditions and then proclaiming these as the salient causes of a condition, and their direct (often via drugs) manipulation as the cure. This biological reductionist approach is anti-evolutionary, since it does not focus on the functional design of the brain as a system, nor the adaptive function of certain states (albeit highly amplified or distorted), but only on small (often synaptic) mechanisms. Concern with prevention is notably absent in bio-medicine. Where it does exist it invariably has to focus on psychosocial and behavioural regulators. Brainless therapists, however, can suffer from an over-focus on negative thoughts, rational versus irrational thinking, in a legoland of schema, which is almost an 'out of the body experience'.

Our response to fragmentation will depend on what models we have available to handle this complexity and our orientation and preparedness to engage this complexity. This may call us back to rethink clinical psychology, at least to some degree, and certainly be clear that clinical psychology is a much broader profession and science than (say) counselling, which some fear might come to replace it. Clinical psychology should attempt to gain insight into both the biological basis of suffering and the cultural forms of mind shaping. After all if we do not attempt this type of integration who will? Thus we need to be knowledgeable of the multiple domains that interact with mental states, to build and test theories of interactions and to advance interventions that go beyond the personal. This message is perhaps the one we are failing to convey to those who puzzle over what psychologists do and how they differ from counsellors; a confusion we may not help when we try to create our professional identities through therapeutic relationships alone. The scientist-practitioner model may not fully reflect our potential for biopsychosocial theory building.

Finally, although there is a long way to go, and the details of the evolutionary basis to clinical psychology outlined here may not stand the test of time, I hope enough has been said to open up debate and show that an evolutionary psychology is not reductionistic. Evolutionary theory can point to a theory

of human needs and the centrality of internal and external conflict. It highlights (as other theories do) why we should be extremely cautious in how we create social contexts, socialize competitive or co-operative behaviour, and thwart our evolved potentials for positive, open, supportive, human relationships, and avoid trapping people in involuntary subordinate positions.

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