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How mentalisation changes the mind

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SUMMARY

In this article, we offer an account of how various psychological therapies address dysfunctional mentalisation and identify pitfalls of therapy that could lead to an impasse or even to negative consequences associated with psychological treatment. Some practical recommendations follow from our model, particularly in relation to the careful monitoring of the intensity of the patient's attachment and the use of interventions aimed at promoting mentalising.

In our article in the previous issue of *Advances* (Adshead 2012), we drew on results from neuro-psychiatry and animal studies to propose a model of

how psychological therapies 'work' in practice. We suggested that dysfunctional mentalisation is an essential feature of psychological disorders, and that psychological therapies improve mentalisation because they change underlying neuronal structures in different parts of the brain that regulate the experience of the self. Here we review techniques for enhancing mentalisation and discuss the implications for services and training.
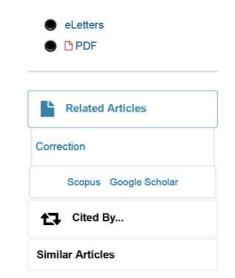
What changes in psychotherapy?

Howard (1993) argued that change in psychological therapies involves a phased process of remoralisation, remediation and rehabilitation. On the basis of this model, we suggest that what changes in psychotherapy (perhaps as part of the rehabilitation process) is the capacity to have thoughts about the experience of the self and others, and to take these seriously. This may be understood as the continuing process of keeping mind in mind, or mentalisation (see Allen et al (2008) for a fuller exposition of this position). Alternatively, it may be seen as the strengthening of a complex set of cognitive capacities or meta-cognition (Lysaker 2005).

Key to both these concepts is an enhanced capacity for accurately appraising (perceiving, encoding, retrieving) the states of one's own mind; this is a kind of calibration process, the results of which are most effectively assessed through linguistic analysis of narratives (e.g. Fonagy 1998; Ensink 2003). Although it should be acknowledged that there is scepticism about such overarching constructs and measures (Holmes 2005; Semerari 2005; Choi-Kain 2008), it may nevertheless be reasonable to suggest that the specificity of psychotherapies arises not just out of the content of the mentalising focus (specific thoughts or feelings), but also out of the level or complexity of mentalising function demanded by particular psychotherapeutic approaches, from basic self-monitoring and awareness of self-states to more complex tasks, such as making inferences about the intentions of others and both second-and third-order thinking.

The process of change: psychotherapies as environmental stimuli

Neuronal development in infancy depends on

environmental stimulation. Early studies with animals demonstrated the importance of early external stimuli for the functional development of perceptual systems. Later animal studies showed that social environments (i.e. inputs from carers or peers) are important in the development of neuronal cytoarchitecture, and that early social deprivation damages the development of neural networks in the parts of the brain that regulate social function (**Kraemer 1992**).

Kandel's original work demonstrated the effect of learning new information on gene expression for proteins active at neuronal synapses involved in hippocampal networks (**Kandel 1999**). Similar studies have examined how hippocampal gene expression is affected by childhood experience of stress and medication (e.g. **Alfonso 2006**; **Szyf 2008**). There is evidence from both animal and human research that the expression of a gene affecting arousal regulation is directly affected by the caregiving environment in which the affected individual is raised (**Barr 2004**; **Caspi 2006**).

Other research suggests a direct effect of external stimuli on brain plasticity. Early experience of pain affects the sensitivity of children to pain, suggesting that early stress experience fundamentally alters the rate of firing of pain neurons in a way which persists over time (**Hermann 2006**). Fear and pain experiences affect the development of the neural architecture of the right orbitofrontal cortex; the neurohumoral stress responses to pain alter the rate and degree of arborisation and dendritisation of developing neurons, affecting the organisation of neuronal networks. Such pathological disorganisation persists into adulthood, resulting in affective dysregulation and impaired neuronal connections between the frontal executive neocortex and the limbic system (**Schore 1996**, **2001**).

In adulthood, pain responses can be altered by external perceptual stimuli such as reassuring words or visualising images that, by a learning process, induce the expectation that pain will be reduced (**Benedetti 2005**; **Colloca 2008**). Such studies are consistent with the work of **Ramachandran & Blakeslee (1999)** on the relief of phantom limb pain. By presenting images of the unaffected limb to the brain on a repeated basis, patients can alter their neural maps of how the affected

limb is represented in the brain. The way they 'see' their limb in their internal world can be altered by repeated learning tasks, which (presumably by new gene expression) facilitates the development of new neural growth in the brain.

Doidge (2008) speculates that in reflective therapies, the patient is either (a) repeatedly presented with new verbal images of himself in relationships or (b) learns new information about images from non-verbal implicit memory systems which have been transferred into verbal explicit systems during the process of therapy. This new information acts as a stimulus to gene expression of protein synthesis, allowing new synaptic connections to be made, which then results in a change to associated neural networks.

Changing your mind

Psychotherapy

Psychotherapeutic techniques are effective because they change both minds and brains. We believe that the talking therapies exercise their therapeutic effects via a benign impact on mentalisation (Allen 2008). Consider the example in Box 1. Here a person in distress uses both the reflective process and the cognitive review process in group therapy to do a number of mentalising tasks. First, she identifies her self-experience, and then names and considers both feelings and thought. Next, new information from the environment stimulates new thoughts and experiences, and any temporary related affective distress is validated, supported and explored. The patient considers both her own conscious intentions and those of others, but also is invited to reflect on parts of her mind that she cannot see, but others can. In this way, she is able to take a different perspective on her own distress, which gives her options in terms of her interpersonal functioning.

BOX 1

Clinical example from an out-patient therapy group

A professional woman in her 30s comes for group therapy. She tells of her physical and emotional abuse at her mother's hands. She presents as

helpful and solicitous to others in the group. She repeatedly and tearfully complains that senior colleagues at work are 'mean' to her. She becomes distressed and angry when it is suggested that she is competitive with other female group members and when another female group member (very similar to her) is hostile to her in the group.

Her 'cover' story is that of being a victim of the 'meanness' of others. But what also appears is the problem of being 'mean' herself (i.e. ordinarily angry, paranoid and competitive). The process of group therapy allows her to tell a different story; a story of being an angry and fearful girl, who has grown up to be an angry and fearful woman. She can see how she unconsciously gets into competition with others and how 'mean' she feels when thwarted or disregarded.

By voicing these aspects of herself, she acquires more sense of agency over them. She experiences a reduced sense of being a victim of others; and an improved sense of control over her 'mean' feelings. Her new story of herself is that although she experienced fear and neglect in the past, she survived. She does not have to be a victim with a secret mean streak; she could be an actor with the potential to change. After discharge, she was asked whether she had changed – she said: 'I'm the same person, I just think completely differently about myself'.

(Published with the patient's informed consent)

Attachment

The therapy process, however, begins with attachment to a secure base from which mentalising can occur. Psychotherapy across a range of modalities attempts to enhance mentalisation, in part by activating an attachment context, which in humans (as we have seen) provides the relational basis for finding out about minds: our own minds as well as those of benign others. Numerous interpersonal features, which are present to a degree in all forms of therapy, are likely to elicit the universal dynamic for creating affectional bonds described by Bowlby (1977). Bowlby (1969) attributed the strength of this need to the extended period of

immaturity in human development where the urgent subjective need for interpersonal proximity, triggered by fear, serves the evolutionary function of ensuring the child's safety. According to Bowlby (1988a), attachment to a particular individual continues to be created in adulthood, especially in those situations where caregiving is elicited. Reciprocal care-eliciting and caregiving activates the behavioural system for attachment.

So attachment is likely to be powerfully activated by any situation where an individual in distress requires assistance with self-regulation from an identified caregiver. Attachment is further activated by extensive discussions of current and past attachment relationships, which intensifies internal working models of attachment relationships. This means that any psychological technique that explores affects, cognitions and memories will stimulate the attachment system, and provide the psychological framework for mentalising.

Improved mentalisation

There are a number of ways in which the therapist offers assistance with mentalising. First, the therapist helps with the patient's regulation of affect, most often through contingent marked responding to the patient's affect (Box 2) and by creating a safe and sensitive interpersonal environment (Gergely 2007). Next, regardless of orientation, the therapist explicitly creates alternative perspectives on mental experience in the context of the therapeutic encounter, whether by interpreting the transference or while recovering from misunderstandings or ruptures of the therapeutic alliance. In general, the therapist has the overarching goal of generating a safe and sensitive interpersonal environment that assists with the patient's regulation of affect.

BOX 2

Contingent marked responding

Contingent marked responding is reacting appropriately in terms of affect, tone, timing and content, to someone's (emotional) expression, but marking this mirroring response to signal that the affect expressed is in response to the original

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communication rather than spontaneously arising within the responder, e.g. the therapist shows concern in response to the patient's distress, rather than crying or becoming distressed.

In some treatments, the therapist explicitly encourages the patient to develop an attachment bond to the therapist or the therapy programme. Although this may hardly be necessary for some patients, other patients may struggle to engage with therapy, and avoid treatment and the attachment entailed (Dozier 2001; Tyrer 2003). Attachment within therapy is usually achieved through implicitly implemented verbal and non-verbal strategies (there is 'therapese' in much the same way that most mothers quickly learn to speak 'motherese' to their infants). In the context of group therapy, the therapist may also attempt to engender attachment bonds between members of the group, and with the group as a whole (Glenn 1987).

All psychological therapies enhance mentalisation: schools and techniques

We believe that the different schools and techniques of therapy have more in common than is often suggested, in terms of both aims and outcomes. Most therapists are explicitly committed by various formalisations of their practice to help clients to connect their feelings with thoughts. Within psychodynamic treatment this can be operationalised as overcoming the splitting of affect and cognition (and creating what we have called mentalised affectivity or the feeling of feelings). Addressing imbalances in all the components of mentalising may be a generic characteristic of different psychotherapeutic modalities. For example, the therapist may work to move the patient from implicit–automatic mentalisation to explicit–controlled mentalisation by challenging automatic assumptions made by the patient. This technique is as common in cognitive–behavioural therapy (CBT) as in the dynamic therapies.

Psychotherapists across all orientations commonly work to elaborate the patient's internal representations of their own and other people's mental states. They might do this by casually challenging superficial judgements about people based on appearances made by the patient or pursuing the meaning of such assumptions in

the context of a more reflective, psychoanalytic treatment. Differentiating self and other in psychotherapy is a non-trivial goal, precisely because the patient in treatment is trying to find themselves in the mind of the therapist, to achieve the 're-calibration' of internal experience we referred to earlier. In the therapeutic process, this may be tantamount to explicitly adopting the perspective of the other on the self (as is indeed often explicitly manufactured in systemic psychotherapy through role-play) or by working hard to arrange the setting so that the disorganising impact of the other on the self is minimised (as in the use of the couch in classical analytic techniques).

Cognitive therapy

In cognitive therapy, mentalisation is never far from being the central concern. All cognitive therapies employ techniques that encourage learning by restructuring dysfunctional thought patterns, and enhance basic self-reflective skills, such as second-order thinking and naming of thoughts. For example, in drawing attention to automatic negative thoughts and their influence on mood, the therapist does more than address the named maladaptive processes. The therapist also enhances the patient's awareness of how their mind works. Similarly, reflecting on habitual thought patterns involves mental elaboration — making what had been preconscious now functionally fully conscious. Even the most behavioural features of cognitive therapy, such as taking an empirical attitude towards the validity of one's thoughts and challenging global negative thinking, in addition to addressing these dysfunctional features, promote curiosity, inquisitiveness and flexibility in thinking.

Mindfulness training

More recently, mentalising and other activities that are so closely related as to be almost indistinguishable have taken centre stage in CBT. Mindfulness training (**Teasdale 2000**; **Segal 2002**; **Brown 2003**; **Hayes 2004**; **Lynch 2006**; **Choi-Kain 2008**) for depression explicitly aims to change the patient's relationship to depressive thoughts and feelings rather than the content of the thought. In doing so, mindfulness training enhances awareness of thoughts and feelings and promotes a mentalising stance by drawing attention to the unceasing flux in mental states. Mindfulness training

is highly effective in preventing relapse in depression; those skilled in these techniques have enhanced right orbitofrontal function (associated with improved capacity to regulate negative affects) compared with those who are untrained (**Davidson 2003**).

Interpersonal psychotherapy

Techniques that promote mentalising in interpersonal psychotherapy are also fairly close to the declared focus of the treatment (e.g. **Mufson 1999**; **Markowitz 2007**). Interpersonal psychotherapy implicitly draws attention to mentalising in relation to others' mental states, while also promoting self-awareness with an eye to interpersonal problem-solving in the here and now. There are numerous specific techniques that we would expect to promote mentalising in interpersonal psychotherapy, such as the encouragement of affect to help patients understand, regulate and express their feelings; the extensive use of clarification of interpersonal experience, which in turn often includes communication analysis; and the use of the therapeutic relationship for identifying such problems.

Patient-centred therapy

Similarly, we do not have to look far to find specific techniques that promote mentalising in patient-centred therapy. In fact, one might consider the patient-centred approach to be the prototypical mentalisation therapy, as it has sensing the perspective of the patient (i.e. empathy) as its pivotal point. The inquisitive stance (as described in **Bateman (2004**, **2006)**) echoes Carl **Rogers' (1951)** recommendation that empathic comments be conveyed tentatively.

Beyond this issue of style, patient-centred therapists work to clarify their patient's position in order to enable them to create a congruent and integrated self. In so doing, they will inevitably help the individual to develop greater mentalising capacity.

Behaviour therapy

We could even make the case that classical behaviour therapy involves mentalisation. When patients are taught new responses to fear-inducing stimuli, changes occur in the ventral prefrontal cortex and amygdala, which are involved in fear reactions (**LeDoux 1988**). Techniques that involve non-verbal or physical

interventions probably also engage the brain in learning new meanings, either directly through neural networks in the amygdala or indirectly by improving symbolic function (i.e. the translation of affect into cognitive imagery). Naming feelings reduces amygdala activation and therefore changes both synaptic function and the experienced level of distress (**Costafreda 2008**; **Vrticka 2008**).

Transference, hyperarousal of the attachment system and mentalising

As discussed earlier, it is almost inevitable that the therapeutic relationship will activate the attachment system, especially in individual therapies. But does this inevitably contribute to healing, as **Bowlby (1988b)** suggested? In their earliest encounters with the psychotherapeutic process, **Freud & Breuer (1895)** discovered that at least in some individuals the intensity of the bond stimulated may be nothing short of overwhelming.

Psychotherapeutic 'hyperactivation' of the attachment system is especially likely to occur in individuals whose attachment systems are insecure. The emotional challenge of the therapeutic situation gives rise to mild anxiety or even distress in the patient, which is biologically programmed to activate the attachment system and generate 'proximity-seeking' behaviour designed to elicit caregiving behaviour from the adult. A sensitive therapist responding humanely to interpersonal distress will trigger the psychological cues selected over millennia to generate a powerful affectional bond in the patient.

The activation of the attachment system may be benign and self-resolving in secure individuals, but these individuals are not likely to be seeking therapy (**van IJzendoorn 1996**). The majority of psychotherapy-seekers will have insecure attachment histories; and for these people, the reactivation of attachment relationship schemata will inevitably create emotionally challenging experiences in relation to the therapist. Whatever the specifics of the history, the activation of childhood relationship schemata may be expected to create repeated emotional challenges in the therapeutic experience of an individual with insecure attachment history. The distress and anxiety generated by these

challenging experiences will trigger the attachment system further, generating more proximity-seeking, caregiving and strengthening of the affectional bond, with greater potential for emotionally challenging encounters with the therapist, particularly for those in whom high-conflict internal working models have been activated.

Consider the fictitious but clinically accurate case of Harry (Box 3). Harry is likely to find individual therapy both soothing and arousing. He will be hypersensitive to situations where the therapist (caregiver) fails to be immediately attentive, and he may be especially sensitive to the comings and goings of other patients for whom his therapist has professional caring responsibility, although he himself may not be aware of this.

BOX 3

Harry's game

Harry seeks therapy because he has depression and is anxious around people. Although good at his job as an accountant, Harry has few friends and has not had any emotional/sexual relationships for some time. Harry's negative automatic thoughts include persistent thoughts of being unpopular and perceiving that others exclude him from social events. He describes an anxiety that his female boss favours a new and more junior female colleague, and recently described having a panic attack when he saw them having coffee together during the lunch break.

Harry is bright and articulate. He engages well with his therapy and does his homework. He can 'see' that it is not really likely that his colleagues are excluding him, and he finds the cognitive challenges to his assumptions and formulations helpful. By the end of 12 sessions, he reports feeling happier at work and more able to propose socialising and joining in with others. However, he also reports still feeling anxious around his boss, and is now aware of feeling tearful in her presence.

The therapist now takes a more detailed attachment history. Harry describes feeling that his mother rejected him when he was in distress as a

boy, although he understands now as an adult that she may have been distracted by his maternal grandfather's long illness and death. He also reports that he felt that his sister (5 years younger) received more unconditional care.

Depending on our model of psychotherapy, we could look at this type of scenario in two different ways. We can explore Harry's social difficulties in terms of the hyperactivation of his attachment system, triggered by implicit memory cues, and provide him with a secure base that supplies him with new information, supports him in exploring rather than avoiding fears, and challenges negative cognitions. We can also create an opportunity for him to work through the hyperactivation of the attachment system as it occurs in the therapeutic relationship itself. Using the therapeutic process gives immediate opportunities for experiencing and reflecting on a complex and conflicted relationship model that is already being triggered in numerous other relational contexts. This would clearly be the preferred approach of most psychodynamic psychotherapists (e.g. **Davies 2004**). Even from a CBT perspective, we may see justification for exploring emergent schemata in the here and now, testing their validity and robustness (**Young 1999**).

Benefits and risks in the psychotherapeutic process

There is a certain amount of evidence to indicate that effective psychotherapeutic treatment is associated with improvements in mentalisation (**Target 2003**; **Levy 2006a**,**b**). In randomised controlled trials, mentalisation-focused treatments have been shown to be effective for disorders such as borderline personality disorder (**Bateman 2008**) and preventive interventions for violence (**Fonagy 2005**, **2009**). Even in severe mental illnesses, such as schizophrenia, psychological therapies that improve basic reflective function lead to improved social performance (**Lysaker 2010**).

However, from the perspective of the mentalising model of psychotherapeutic efficacy, the hyperactivation of the attachment system calls for caution. There is good evidence that intense activation of the neurobehavioural system underpinning attachment is associated with deactivation of arousal and affect regulation systems (**Nolte 2011**), as well as deactivation of neurocognitive

systems likely to generate interpersonal suspicion, i.e. those involved in social cognition or mentalisation, including the lateral prefrontal cortex, medial prefrontal cortex, lateral parietal cortex, medial parietal cortex, medial temporal lobe, and rostral anterior cingulate cortex (**Bartels 2000**, **2004**; **Mayes 2000**, **2006**; **Satpute 2006**; **Lieberman 2007**).

The saying that love is blind exists in most human languages and encodes the incompatibility of powerful activation of the attachment system with meaningful (as opposed to ruminative) contemplation of mental states. Put simply, as attachment intensifies and arousal increases, mentalisation switches from a primarily controlled, reflective, internally focused, cognitively complex, prefrontally guided process to an automatic, externally focused, emotionally intense, posterior cortically and subcortically driven one.

How might this affect psychotherapy?

Given that the overarching aim of psychotherapy is to enhance the capacity for mentalisation, if overactivation of attachment aspects of the therapeutic relationship undermines mentalising capacity in the patient, then the patient may no longer benefit from either the treatment or the relationship it offers. At that point the enactments of insecure relationship patterns come to dominate the patient's mind and colour their experience of the therapeutic relationship: the resulting (mis)perceptions are experienced 'as if real' in the non-mentalising transferential heat of the disorganisation of therapeutic attachment. Patients may complain that the therapy is unhelpful or unpleasant, may actively see the therapist as abusive, and/or drop out of therapy altogether. Alternatively, patients may make intense attachments to therapists, who are then idealised and/or seen as 'perfect' sexual partners.

How might the therapist address this problem?

The intensification of attachment aspects of the therapist–patient relationship will initially play an important role in strengthening the patient's focus on mental states. To benefit from this focus on mental states, the therapist has to retain a capacity for marked mirroring. This means that the therapist (like the securely attached mother) is able to indicate attunement and compassion for the patient's affects, rather than

feeling these emotions themselves (or feeling overwhelmed by them) (**Strathearn 2009**). In addition, the therapist must be able to indicate attunement and compassion while communicating self–other differentiation by 'marking' their mirroring with indications of coping in their affect displays (e.g. exaggerated, slowed-down, schematic or only partial motor execution of their primary canonical motor pattern (**Gergely 1996**, **2004**, **2007**, **2008**; **Fonagy 2002**)). Work on filmed short-term therapy has demonstrated that experienced and effective therapists show less obvious affect on their face when with patients than inexperienced therapists (**Anstadt 1997**). Perhaps experienced therapists are more aware that showing too much empathy could overstimulate the patient. To be optimally effective, they must be able to stop short of attachment system hyperarousal and must avoid intensifying attachment relationships to the point that risks disorganisation.

When working with patients with highly disorganised self-structures (e.g. severe personality disorder), the therapist must be aware of moment-to-moment changes in the patient's mental state and must be ready to step back from the heat of the encounter (**Bateman 2006**). Tragically, as noted elsewhere (**Fonagy 2006**), interpretations demanding considerable reflective capacity are often given when the patient is least able to adopt an intentional stance to parse and implement the implication of the therapist's comment.

The mystery of psychotherapy: the unique duality of love and mentalisation

It is the contention of this article that psychological therapy works by simultaneously activating what may be two mutually inhibitory sets of brain systems. The therapist attempts to enhance mentalisation by using specific techniques (interpretation of actions and interactions, calls for reflection) and generically encouraging and taking an interest in the patient's mental world. At the same time, the therapist also deliberately and purposefully activates the attachment system and creates a paradoxical state by maintaining the requirement for a mental state focus. We hypothesise that this complex mental state (which has been previously labelled 'mentalised affectivity'

(**Fonagy 2002**)) ensures the insight into emotional experience which the psychotherapies are uniquely able to provide for patients.

For both parties to the therapeutic encounter, it can be quite a challenge to maintain a mental state focus while also keeping the attachment system active. This is perhaps where the science of psychotherapy enters into the realm of performance art (**Allen 2006**). The paradoxical pattern of activation is maintained by (a) the titrated activation of negative emotions as the therapist encourages the patient to confront current adversities and traumatic experiences, and (b) the encouragement to retrieve affect-laden episodic memories, including traumatic ones.

Two neural networks that play a role in mentalisation have been consistently reported to be relatively active during exposure to stimuli believed to activate either parent–child love (picture of own infant) or romantic love (picture of loved partner) (**Bartels 2000**, **2004**). The first is the network that includes the middle prefrontal, inferior parietal and middle temporal cortices, mainly in the right hemisphere, and the posterior cingulate cortex. This network is engaged in the mediation of attention and long-term memory, has variable involvement in both positive and (mainly) negative emotions, and is thought to underpin the interface of mood-related memory and cognition.

The second network includes the temporal poles, parietotemporal junction and mesial pre-frontal cortex. It is known to be activated in tasks of social trustworthiness, moral judgements, theory-of-mind tasks, solely negative emotions and attention to own emotions, and is thus likely to underpin the ability to determine other people's emotions and intentions and take an intentional stance towards the self.

How is psychotherapy unique, and is there a clue as to how it might work?

If psychotherapy demands the paradoxical activation of two normally mutually inhibitory systems within the brain, what does this achieve? Why is it essential for therapy to activate the attachment system? Why is therapeutic alliance a necessary condition for change? Why is it that stronger alliance predicts greater change, with early alliance predicting improvement in symptoms

at the end of treatment (Orlinsky 2004)?

Therapeutic technique activates systems associated with negative emotions, whereas social and moral judgement and mentalising will be partially inhibited by the attachment system. The patient is asked to look at memories and thoughts about themselves, while making use of the wired-in connections of the attachment system to 'anaesthetise' the patient from the full reality of the experience. Unless the attachment system is overaroused, the patient looks at himself through rose-tinted spectacles that the attachment system (when moderately active) may evoke.

Psychotherapy thus entails intense thinking about feelings, thoughts and beliefs in the context of attachment. The activation of attachment feelings creates a brain state that removes the dominance of constraints on the present from the past (long-term memory) and creates the possibility of re-thinking and re-configuring intersubjective relationship networks. In psychoanalytic discourse, authors have used Winnicott's concept of 'transitional space' (Winnicott 1953) to denote this particular therapy-specific mental state (e.g. Gaddini 1970; Elmhirst 1980; Adler 1989; Auerbach 2001).

In considering the origins of dynamic psychotherapy, Freud (1900) came upon the following comment by Schiller, published in 1788:

> 'on the other hand, where there is a creative mind, Reason – so it seems to me – relaxes its watch upon the gates, and the ideas rush in pell-mell, and only then does it look them through and examine them in a mass' (p. 103).

Freud believed this to describe the phenomenon of deactivated constraints on cognition that we are also attempting to describe here. Freud (1900) goes on to recognise explicitly the same phenomenon, but misses the crucial role that attachment (the therapeutic relationship) has in making the process possible:

> 'an attitude of uncritical self-observation, is by no means

> difficult. Most of my patients achieve
> it after their first instructions. I myself
> can do so very completely, by the
> help of writing down my ideas as they
> occur to me' (p. 103).

We can bring no evidence to bear on the extent to which Freud's statement about his ability to achieve this state of mind by himself can be considered veridical. Let the record state, however, that since Freud, few have found self-understanding and insight readily on their own without the presence of another mind skilfully working to create and maintain a setting within which acute self-perception is possible because overwhelming moral scrutiny is reined in.

The therapist's mind

The processes described earlier are also relevant to what is happening in the therapist's mind. Insofar as the therapist is being called upon to be a caregiver, their attachment system will also be activated. If the attachment system is an organisation of both care-eliciting and caregiving behavioural patterns (George 1996), then activation of the attachment system may be present in the therapist, no matter what school or technique. Mild activation of the attachment system appears to facilitate mentalisation and thus helps the therapist encourage the patient to adopt a controlled, internally focused, self–other differentiated stance towards their mental state.

However, for reasons that may have evolutionary significance, the intense activation of the networks underpinning attachment feelings and experiences also appears to inhibit the intensity of cognitive and emotional scrutiny over mental contents. This state of affairs creates a unique opportunity for the psychotherapist. By balancing the activation of attachment against the presentation of negative mental contents, they are able to present new stimuli (mental contents) to the patient without evoking mental resistance against the incorporation of new ways of experiencing the world into existing cognitive–emotional schemata.

This process can be compromised by the hyperactivation of the attachment system. This is

predictable given what we know about the attachment system and psychotherapy. If/when the therapy itself gives rise to distress and fear (perhaps because material emerges that frightens the patient or the therapist is unable or unwilling to contain that fear), it is inevitable that the patient's attachment system will be activated. Proximity-seeking to a therapist without the capacity to soothe or who creates additional anxiety will generate a state of affairs in which the patient's attempts to gain reassurance and comfort from the therapist will increase their distress, further activating attachment and leading to a disorganisation of the therapeutic attachment system.

This is, of course, most likely to occur with individuals who have had adverse attachment experiences; when these are reactivated by the process of therapy, it is likely to lead to feelings of distress in the context of the therapeutic relationship. In such cases, the balance of mentalising and attachment needs to be redressed before meaningful therapeutic work can begin. If this is not achieved, the treatment might become one of those 5–10% of cases where therapy not only fails to lead to improvement but causes unintended harm to the patient (**Lilienfeld 2007**).

Hyperactivation of the attachment systems may also help to explain why some therapists lose their capacity to be attuned and reflective, and in fact lose their mentalising function themselves. Such a loss of attunement can result not just in deficits in mirroring and the generation of more anxiety for the patient. It may also result in the therapist acting out inappropriate behaviours, such as developing emotional and sexual relationships with patients. Such lapses of mentalising are known to be more common with patients who have highly disorganised attachment histories as a result of childhood abuse (**Kluft 1990**) or where the therapist is undergoing some attachment crisis in their own lives outside the therapy.

Improving access to all psychological therapies

As we have seen, there is clear neuropsychiatric evidence that psychological therapies change the brain. We suggest that this is because the psychological therapies provide an environment in which the patient is

repeatedly exposed to new perceptual stimuli, making new learning possible. New stimuli include new approaches to monitoring one's own thoughts and feelings; new verbal formulations of experience; new behavioural responses to fear; or new appraisals of experience encoded in memory.

All psychotherapeutic techniques enhance mentalisation processes to some degree, although some techniques may be more effective than others, depending on which aspect of mentalisation is in need of reinforcement. All patients in mental distress can benefit from psychological therapy, but it is important to use the right technique for the presenting complaint, and to regularly review the patient's treatment needs. No psychological techniques should be excluded from the therapies available to patients on the basis of the current evidence, and would-be therapists need to be thoughtful about their own attachment histories.

MCQs

Select the single best option for each question stem

1. **Mentalising processes do not include:**

   1. self-monitoring

   2. awareness of self states

   3. political judgements

   4. making inferences about the intentions of others

   5. second-order thinking.

2. **Which of the following is not true?**

   1. learning new information alters gene expression at neural synapses

   2. childhood experience of stress alters gene expression

   3. childhood experience of care giving alters gene expression

   4. pain experience alters gene expression

   5. psychological interventions have been shown to alter gene expression.

3. **The following brain areas are not involved in mentalising:**

1. medial prefrontal cortex

2. lateral prefrontal cortex

3. amygdala

4. rostral anterior cingulate

5. medial temporal lobe.

4. **Therapists alter mentalising by:**

   1. giving orders

   2. creating alternative perspectives

   3. remaining silent

   4. giving advice

   5. maintaining rigid adherence to theory.

5. **Transference:**

   1. is a feature of a hyperactivated attachment system

   2. only occurs in personality disorder

   3. only affects the patient

   4. does not occur in cognitive therapy

   5. does not happen with modern therapeutic techniques.

MCQ answers

1	c	2	e	3	b	4	b	5	a

Footnotes

- ↵† This is the second of two articles by Peter Fonagy and Gwen Adshead that consider the role of psychotherapy as an effective treatment for psychiatric disorders, focusing on mentalisation. The first appeared in the July issue of *Advances*: Adshead G, Fonagy P (2102) How does psychotherapy work? The self and its disorders, 18 : 242–9.

- **DECLARATION OF INTEREST**
  None.

- This article has been corrected post-publication, in deviation from print, and in accordance with a correction published in the May 2013 issue

References

Adler G (1989) Transitional phenomena, projective identification and the essential ambiguity of the psychoanalytic situation. *Psychoanalytic Quarterly* **58**: 81–104. Medline Web of Science

Adshead G, Fonagy P (2102) How does psychotherapy work? The self and its disorders. *Advances in Psychiatric Treatment* **18**: 242–9.

Alfonso J, Frick LR, Silberman DM, et al. (2006) Regulation of hippocampal gene expression is conserved in two species subjected to different stressors and antidepressant treatments. *Biological Psychiatry* **59**: 244–51. CrossRef Medline Web of Science

Allen JG, Fonagy PAllen JG (2006) Mentalizing in practice. In *Handbook of Mentalization-Based Treatment* (eds Allen JG, Fonagy P): 3–30. John Wiley & Sons.

Allen JG, Fonagy P, Bateman AL (2008) *Mentalizing in Clinical Practice*. American Psychiatric Publishing.

Anstadt T, Merten J, Ullrich B, et al. (1997) Affective dyadic behavior, core conflictual relationship themes, and success of treatment. *Psychotherapy Research* **7**: 397–419. CrossRef

Auerbach JS, Blatt SJ (2001) Self-reflexivity, intersubjectivity, and therapeutic change. *Psychoanalytic Psychology* **18**: 427–50. CrossRef

Barr CS, Newman TK, Shannon C, et al. (2004) Rearing condition and rh5-HTTLPR interact to influence limbic-hypothalamic-pituitary-adrenal axis response to stress in infant macaques. *Biological Psychiatry* **55**: 733–8. CrossRef Medline Web of Science

Bartels A, Zeki S (2000) The neural basis of romantic love. *Neuroreport* **11** : 3829–34. CrossRef Medline Web of Science

Bartels A, Zeki S (2004) The neural correlates of maternal and romantic love. *Neuroimage* **21**: 1155–66. CrossRef Medline Web of Science

Bateman A, Fonagy P (2008) 8-year follow-up of patients treated for borderline personality disorder: mentalization-based treatment versus treatment as usual. *American Journal of Psychiatry* **165**: 631–8. CrossRef Medline Web of Science

Bateman AW, Fonagy P (2004) *Psychotherapy for Borderline Personality Disorder: Mentalization Based Treatment*. Oxford University Press.

Bateman AW, Fonagy P (2006) *Mentalization Based Treatment for Borderline Personality Disorder: A Practical Guide*. Oxford University Press.

Benedetti F, Mayberg H, Wager T, et al. (2005) Neurobiological mechanisms of the placebo effect. *Journal of Neuroscience* **25**: 10390–402. FREE Full Text

Bowlby J (1969) Attachment and Loss, Vol. **1**: *Attachment*. Hogarth Press and the Institute of Psycho-Analysis.

Bowlby J (1977) The making and breaking of affectional bonds. II. Some principles of psychotherapy. *British Journal of Psychiatry* **130**: 421–31. **Abstract/FREE Full Text**

Bowlby J (1988a) *A Secure Base: Clinical Applications of Attachment Theory*. Routledge.

Bowlby J (1988b) Developmental psychiatry comes of age. *American Journal of Psychiatry* **145**: 1–10. **Medline Web of Science**

Brown KW, Ryan RM (2003) The benefits of being present: mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology* **84**: 822–48. **CrossRef Medline Web of Science**

Caspi A, Moffitt TE (2006) Gene–environment interactions in psychiatry: joining forces with neuroscience. *Nature Reviews: Neuroscience* **7**: 583–90. **CrossRef Medline Web of Science**

Choi-Kain LW, Gunderson JG (2008) Mentalization: ontogeny, assessment, and application in the treatment of borderline personality disorder. *American Journal of Psychiatry* **165**: 1127–35. **CrossRef Medline Web of Science**

Colloca L, Siguado M, Benedetti F (2008) The role of learning in nocebo and placebo effects. *Pain* **136**: 211–8. **CrossRef Medline Web of Science**

Costafreda SG, Brammer M, David A, et al. (2008) Predictors of amygdala activation during the processing of emotional stimuli: a meta analysis of 385 PET and fMRI studies. *Brain Research Review* **58**: 57–70. **CrossRef Medline Web of Science**

Davidson RJ, Kabat-Zinn J, Schumacher J, et al. (2003) Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine* **65**: 564–70. **Abstract/FREE Full Text**

Davies JM (2004) Whose bad objects are we anyway? Repetition and our elusive love affair with evil. *Psychoanalytic Dialogues* **14**: 711–32. **CrossRef Web of Science**

Doidge N (2008) *The Brain that Changes Itself*. Penguin.

Dozier M, Lomax L, Tyrrell CL, et al. (2001) The challenge of treatment for clients with dismissing states of mind. *Attachment and Human Behaviour* **3**: 62–76.

Elmhirst S (1980) Transitional objects in transition. *International Journal of Psycho-Analysis* **61**: 367–73. **Medline**

Ensink K (2003) Assessing theory of mind, affective understanding and reflective functioning in primary school aged children. *PhD dissertation*, University of London, UK.

Fonagy P, Bateman A (2006) Progress in the treatment of borderline personality disorder. *British Journal of Psychiatry* **188**: 1–3. Abstract/FREE Full Text

Fonagy P, Target M, Steele H, et al. (1998) *Reflective-Functioning Manual, version 5.0, for Application to Adult Attachment Interviews*. University College London.

Fonagy P, Gergely G, Jurist E, et al. (2002) *Affect Regulation, Mentalization and the Development of the Self*. Other Press.

Fonagy P, Twemlow SW, Vernberg E, et al. (2005) Creating a peaceful school learning environment: the impact of an antibullying program on educational attainment in elementary schools. *Medical Science Monitor* **11**: 317–25.

Fonagy P, Twemlow SW, Vernberg EM, et al. (2009) A cluster randomized controlled trial of child-focused psychiatric consultation and a school systems-focused intervention to reduce aggression. *Journal of Child Psychology and Psychiatry* **50**: 607–16. CrossRef Medline Web of Science

Strachey JFreud S (1900) The interpretation of dreams. In *The Standard Edition of the Complete Psychological Works of Sigmund Freud* (Vols **4 & 5**) (ed Strachey J): 1–715. Hogarth Press.

Strachey JFreud S, Breuer J (1895) Studies on hysteria. In *The Standard Edition of the Complete Psychological Works of Sigmund Freud* (Vol. **2**) (ed Strachey J): 1–305. Hogarth Press. FREE Full Text

Gaddini R, Gaddini E (1970) Transitional objects and the process of individuation: a study in three different social groups. *Journal of the American Academy of Child Psychiatry* **9**: 347–65. Medline Web of Science

George C, Solomon J (1996) Representational models of relationships: links between care giving and attachment. *Infant Mental Health Journal* **17**: 198–216. CrossRef Web of Science

Gergely G (2004) The role of contingency detection in early affect-regulative interactions and in the development of different types of infant attachment. *Social Development* **13**: 468–78. CrossRef

Mayes L, Fonagy P, Target MGergely G (2007) The social construction of the subjective self: the role of affect-mirroring, markedness, and ostensive communication in self development. In *Developmental Science and Psychoanalysis* (eds Mayes L, Fonagy P, Target M): 45–82. Karnac Books.

Sharp C, Fonagy P, Goodyer IGergely G, Unoka Z (2008) Attachment, affect-regulation and mentalization: The developmental origins of the representational affective self. In *Social Cognition and Developmental Psychopathology* (eds Sharp C, Fonagy P, Goodyer I): 305–42. Oxford University Press.

Gergely G, Watson J (1996) The social biofeedback model of parental affect-mirroring. *International Journal of Psycho-*

Analysis **77**: 1181–212. Medline   Web of Science

Glenn L (1987) Attachment theory and group analysis: the group matrix as a secure base. *Group Analysis* **20**: 109–17. FREE Full Text

Hayes SC, Follette VM, Linehan M (eds) (2004) *Mindfulness and Acceptance: Expanding the Cognitive Behavioral Tradition*. Guilford Press.

Hermann C, Hohmeister J, Demirakça S, et al. (2006) Long-term alteration of pain sensitivity in school-aged children with early pain experiences. *Pain* **125**: 278–85.   CrossRef Medline   Web of Science

Holmes J (2005) Notes on mentalization – old hat or new wine? *British Journal of Psychotherapy* **19**: 690–710.

Howard K, Lueger R, Maling M, et al. (1993) A phase model of psychotherapy: causal mediation of outcome. *Journal of Consulting and Clinical Psychology* **61**: 678–85.   CrossRef Medline   Web of Science

Kandel ER (1999) Biology and the future of psychoanalysis: a new intellectual framework for psychiatry revisited. *American Journal of Psychiatry* **156**: 505–24.   Medline   Web of Science

Kluft RPKluft RP (1990) Incest and subsequent revictimization: the case of therapist–patient sexual exploitation, with a description of the sitting duck syndrome. In *Incest-Related Syndromes of Adult Psychopathology* (ed Kluft RP): 263–9. American Psychiatric Press.

Kraemer GW (1992) A psychobiological theory of attachment. *Brain and Behavioural Sciences* **15**: 493–541.   CrossRef

LeDoux JE, Iwata J, Cicchetti P, et al. (1988) Different projections of the central amygdaloid nucleus mediate autonomic and behavioral correlates of conditioned fear. *Journal of Neuroscience* **8**: 2517–29.   Abstract

Levy KN, Clarkin JF, Yeomans FE, et al. (2006a) The mechanisms of change in the treatment of borderline personality disorder with transference focused psychotherapy. *Journal of Clinical Psychology* **62**: 481–501.   CrossRef Medline   Web of Science

Levy KN, Meehan KB, Kelly KM, et al. (2006b) Change in attachment patterns and reflective function in a randomized control trial of transference-focused psychotherapy for borderline personality disorder. *Journal of Consulting and Clinical Psychology* **74**: 1027–40.   CrossRef Medline Web of Science

Lieberman MD (2007) Social cognitive neuroscience: a review of core processes. *Annual Review of Psychology* **58**: 259–89. CrossRef Medline Web of Science

Lilienfeld S (2007) Psychological treatments that cause harm. *Perspectives on Psychological Science* **2**: 53–70. Abstract/FREE Full Text

Lynch TR, Chapman AL, Rosenthal MZ, et al. (2006) Mechanisms of change in dialectical behavior therapy: theoretical and empirical observations. *Journal of Clinical Psychology* **62**: 459–80. CrossRef Medline Web of Science

Lysaker P, Carcione A, Dimaggio G, et al. (2005) Metacognition amidst narratives of self and illness in schizophrenia: associated with neurocognition, symptoms, insight and quality of life. *Acta Psychiatrica Scandinavica* **112**: 64–71. CrossRef Medline Web of Science

Lysaker P, Dimaggio G, Carcione A, et al. (2010) Metacognition in schizophrenia: the capacity for self-reflecting as a predictor for prospective assessment of work performance over six months. *Schizophrenia Research* **122**: 124–30. CrossRef Medline

Markowitz JC, Bleiberg K, Pessin H, et al. (2007) Adapting interpersonal psychotherapy for borderline personality disorder. *Journal of Mental Health* **16**: 103–16. CrossRef

Mayes LC (2000) A developmental perspective on the regulation of arousal states. *Seminars in Perinatology* **24**: 267–79. CrossRef Medline

Mayes LC (2006) Arousal regulation, emotional flexibility, medial amygdala function, and the impact of early experience: comments on the paper of Lewis et al. *Annals of the New York Academy of Sciences* **1094**: 178–92. CrossRef Medline

Mufson L, Weissman MM, Moreau D, et al. (1999) Efficacy of interpersonal psychotherapy for depressed adolescents. *Archives of General Psychiatry* **56**: 573–9. CrossRef Medline Web of Science

Nolte T, Guiney J, Fonagy P, et al. (2011) Interpersonal stress regulation and the development of anxiety disorders: an attachment-based developmental framework. *Frontiers in Behavioral Neuroscience* **5**: 55. Medline

Lambert MOrlinsky DE, Ronnestad MH, Willutzki U (2004) Fifty years of psychotherapy process-outcome research: continuity and change. In *Bergin and Garfield's Handbook of Psychotherapy and Behavior Change* (ed Lambert M): 307–90. John Wiley & Sons.

Ramachandran VS, Blakeslee S (1999) *Phantoms in the Brain*. Fourth Estate.

Rogers CR (1951) *Client-Centered Therapy*. Houghton Mifflin.

Roth A, Fonagy P (2005) *What Works for Whom? A Critical Review of Psychotherapy Research*. Second Edition. Guilford Press.

Satpute AB, Lieberman MD (2006) Integrating automatic and controlled processes into neurocognitive models of social cognition. *Brain Research* **1079**: 86–97. CrossRef Medline Web of Science

Schore A (1996) The experience-dependent maturation of a

regulatory system in the orbitoprefrontal cortex and the origin of developmental psychopathology. *Development and Psychopathology* **8**: 59–87. CrossRef Web of Science

Schore A (2001) The effect of early relational trauma on right brain development, affect regulation and infant mental health. *Infant Mental Health Journal* **22**: 201–69. CrossRef Web of Science

Segal ZV, Williams JMG, Teasdale JD (2002) *Mindfulness-based Cognitive Therapy for Depression: A New Approach to Preventing Relapse*. Guilford Press.

Semerari A, Carcione A, Dimaggio G, et al. (2005) Metarepresentative functions in borderline personality disorder. *Journal of Personality Disorders* **19**: 690–710. CrossRef Medline

Strathearn L, Fonagy P, Amico J, et al. (2009) Adult attachment predicts maternal brain and oxytocin response to infant cues. *Neuropsychopharmacology* **34**: 2655–66. CrossRef Medline Web of Science

Szyf M, McGowan P, Meaney MJ (2008) The social environment and the epigenome. *Environmental and Molecular Mutagenesis* **49**: 46–60. CrossRef Medline Web of Science

Leuzinger-Bohleber M, Dreher AU, Canestri JTarget M, Fonagy P (2003) Attachment theory and long-term psychoanalytic outcome: are insecure attachment narratives less accurate? In *Pluralism and Unity? Methods of Research in Psychoanalysis* (eds Leuzinger-Bohleber M, Dreher AU, Canestri J): 149–67. International Psychoanalytical Association.

Teasdale JD, Segal ZV, Williams JM, et al. (2000) Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology* **68**: 615–23. CrossRef Medline Web of Science

Tyrer P, Mitchard S, Methuen C, et al. (2003) Treatment rejecting and treatment seeking personality disorders: Type R and Type S. *Journal of Personality Disorders* **17**: 263–8. CrossRef Medline Web of Science

van IJzendoorn MH, Bakermans-Kranenburg MJ (1996) Attachment representations in mothers, fathers, adolescents and clinical samples: a meta analytic search for normative data. *Journal of Consulting and Clinical Psychology* **64**: 8–21. CrossRef Medline Web of Science

Vrticka P, Andersson F, Grandjean D, et al. (2008) Individual attachment style modulates human amygdala and striatum activation during social appraisal. *Public Library of Science One* **3**: e2868.

Winnicott DW (1953) Transitional objects and transitional phenomena. *International Journal of Psycho-Analysis* **34**: 1–9. Medline

Young JE (1999) *Cognitive Therapy for Personality Disorder: A Schema-Focused Approach* (3rd edn). Professional Resource Press/Professional Resource Exchange.

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