

The case against neuropsychanalysis

On fallacies underlying psychoanalysis' latest scientific trend and its negative impact on psychoanalytic discourse

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The authors offer a critical examination of the claims of the proponents of the growing neuropsychanalytic trend, that neuroscientific findings are relevant and important for the development and justification of psychoanalytic theory and practice. They bring to light some of the intuitions that have led to the popularity of the neuropsychanalytic claims and the fallacies that underlie these claims and intuitions. They argue that it is crucial at this time to articulate the case against the neuropsychanalytic trend because, underlying the debate over the relevance of neuroscience to psychoanalysis, there lies a struggle over the essential nature of psychoanalytic theory and practice. Relying on a biologicistic perspective, whereby only what is biological is real, this new trend in effect offers a vision of psychoanalysis that limits the significance of the unique psychoanalytic concern with the understanding of meanings and the role of discourse in discerning and justifying these meanings.

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Over the past decade, a neuroscientific trend has entered formidably into psychoanalytic discourse. Beyond the quick growth of neuropsychanalytic literature and activity, both in extent and popularity, it finds expression in a dominant sentiment coming from leading analytic thinkers and in official contexts that neuroscience is valuable or even necessary to the evolution of psychoanalysis. To ignore it, it is argued, is to cling to analytic theories and practices, fearing to face the reality that it is in the power of modern neuroscience to corroborate or invalidate these theories and practices (Kernberg, 2004; Mayes, 2003). It is to deny insights regarding mental functioning that are of vital interest to psychoanalysis and thus it is to reject a profound new vision of theory and practice that is just about to evolve, perhaps even sooner than we think, from the union of the different fields (Sacks [internet]). Indeed, the tone is at times prophetic,² its source authoritative, and its appeal widespread. As over 1,000 analysts applauded the flashing images of

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²E.g. 'I think it won't be quite that long until the coming of a profound and almost unimaginable union of sorts, between neuroscience and psychoanalysis, between the outer and inner approaches. ... I suspect it will occur within the lifetime at least of the younger people among you' (Sacks [internet]).

colorful positron emission tomography (PET) scans presented by keynote speaker and renowned cognitive scientist Prof. Antonio Damasio at the opening session of the 44th IPA Congress in 2004, the dominance of the current neuroscientific trend in psychoanalysis was never more evident.

While it would seem that not all analysts find this neuroscientific trend so appealing, within the analytic literature there is very limited reference to specific arguments against it (Edelson, 1984, 1986; see also Boesky, 1995; Smith, 1997). In this paper, we attempt to articulate these arguments, to make explicit the rationale that lies behind opposition to neuropsychanalysis. Our primary point is that the application of neuroscience to psychoanalysis rests on unwarranted inferences that may have a significant negative impact on the way psychoanalysis will evolve in future years. This is because, as we shall show, neuropsychanalysis does not merely offer a perspective on the relationship between two separate fields, neuroscience and psychoanalysis (as maintained by its proponents), but rather leads to a new perspective on the nature of psychoanalysis—a biologicistic one. Thus, the debate over neuropsychanalysis is in fact a debate over the very essence and aims of psychoanalysis. What is in question is not some tenet of this or that psychoanalytic theory, but rather the concern with meanings as mental phenomena—a concern that unites all analytic theories.

While our basic claims are of a general theoretical nature that, in principle, could have been demonstrated solely by conceptual analysis, without addressing the specific details of neuroscientific findings and their specific applications to psychoanalysis, we chose instead to present these claims through concrete examples and in this way maintain a more direct dialogue with those familiar with and influenced by the neuropsychanalytic literature. We discuss four areas of neuroscientific study that have been presented in recent analytic literature as being of considerable value to psychoanalysis (trauma and memory, motivation and affect, dream theory, and theories of the mind), and focus on a number of articles, typical of the kinds that are currently impacting psychoanalysis. These are articles that have recently appeared in official psychoanalytic contexts, were written by well-known psychoanalysts or experts in the field of neuropsychanalysis, and which clearly exemplify and explicate the view that neuroscience contributes significantly to psychoanalysis. At points, to strengthen our case, we refer to additional papers, especially to several that have been published in the past 2 years in the *IJP*.

In our examination of each of the four areas of neuroscientific study, we first present the basic claims made for the relevance of the neuroscientific findings and then highlight the intuitions that underlie these claims. These intuitions are of special significance because they are what lead analysts who are not trained in neuroscience or necessarily immersed in its findings to conclude that, indeed, neuroscience is relevant to their work. Finally, we present our critical examination of the claims and intuitions, and point to the negative consequences of their continued support. After examining all four areas in this way, we put forth a comprehensive picture of the problematic status and impact of the current neuropsychanalytic trend. Before turning to the study itself, three points should be noted:

(a) The theoretical or conceptual arguments that we set forth regarding the limited relevance of the neuroscientific findings to psychoanalysis are not completely novel. There is a longstanding and important philosophical tradition that has made similar claims in regard to the connection between the psychological and biological realms, and, more specifically, between psychology and neuroscience (Edelson, 1986; Fodor, 1974, 1975, pp. 1–26; Polanyi, 1968; Shanon, 1992, 1993; see also Bennett and Hacker, 2003). Our contribution to this ongoing debate lies in the fact that we examine this issue of the limited relevance of neuroscience specifically for psychoanalysis and elucidate the appeal of neuroscience despite these limitations.

(b) Our opposition to the efforts to integrate psychoanalysis and neuroscience does not imply that psychoanalysis is too vulnerable for interdisciplinary dialogue, but rather highlights the strength and special value of the field of psychoanalysis as a domain concerned with meanings, to which neuroscience cannot significantly contribute. Indeed, neuroscientific findings can help demarcate the limits of psychoanalysis. It can determine when neuronal abnormalities are of such a kind that psychological intervention, and hence psychoanalysis, would be futile. But this is not a contribution to psychoanalysis per se, but rather only points to when psychoanalysis could no longer be relevant.

(c) By rejecting the contribution of neuroscience to psychoanalysis per se, we do not in any way question that all mental phenomena necessarily require a biological substrate. We question only the relevance and value of the understanding of the biological substrate, the hardware of the mind, for the understanding of the mental. This article may be regarded as an invitation to seriously consider this question, which in recent debates has been taken for granted.

We turn now to the examination of the four areas of study.

Four areas of neuroscientific study

Trauma and memory

The claim

Neuroscientific findings regarding explicit and implicit memory systems make clear that memory organization is such that many traumatic memories are not coded explicitly and thus are unrecoverable as memories per se. Indeed, a debate on the recoverability of memories arose within psychoanalysis independently of neuroscience. But neuroscience, by revealing the biological grounds of the relevant processes, decides in this debate in favor of the unrecoverability of some memories (Pulver, 2003; Yovell, 2000). The unrecoverability of memories is not the consequence of limited clinical technique, which in time could be improved, but rather is determined by the biology of the brain, a factor not to be modified by analytic interpretation. This has clinical implications as one must no longer search for certain traumatic memories or convey to the patient that it is necessary or always possible to do so. Moreover, neuroscience, based on the neuroimaging of brain anatomy, further distinguishes between different kinds of explicit memory (generic and episodic) and implicit

memory (associative and procedural). These distinctions regarding the fundamental nature of the mind will have to be taken into account in any psychoanalytic theory of the mind. Westen and Gabbard, for example, explain,

Although many neuroimaging studies are of primary interest because they establish brain/behavior relationships, the kinds of studies described here are more relevant to psychoanalysis because they document that certain functional distinctions are also structural (in the neuroanatomical sense), and hence that using the same term [i.e. memory] to describe two different systems would be inappropriate. This is an example in which neuroscientific data constrain psychoanalytic theories, which must either make distinctions that parallel those documented in the experimental literature or justify why such distinctions are not appropriate with respect to certain clinical data. (2002a, p. 69)

Inasmuch as all the different forms of memory are applied in the course of analytic work, awareness with regard to the differential effects of these different forms of memory under different conditions can allow us to better attain our therapeutic aims. Yovell describes this through a case illustration. He concludes,

Neurobiological insight into the effects of stress on memory formation in patients with a history of trauma dictated a shift in the timing of my therapeutic interventions. ... [P]atients with PTSD present to therapy with hippocampi that are already compromised, and with hypersensitive amygdala. In this setting, an exaggerated cortisol response to emotional stress, triggered by their amygdala, may overwhelm their hippocampi, and render them incapable of retaining even the best interpretation. Furthermore, excessive negative affect during a session may lead to nothing more than a traumatic repetition of the original insult in a patient suffering from PTSD. Thus, with patients like Tara, it may actually be better to 'strike while the iron is cold,' and deliver interpretations during moments of emotional calm, when they can be processed and remembered. (2000, p. 179)

In other words, the discovery of the neurological states underlying different disorders and of the neurological impact of forming memories through interpretation allows us to better predict and understand, not only whether a painful or traumatic event will be remembered, but also the methods that facilitate its recollection and the consequences of it being recalled. [A similar argument may be found in Tuttle (2004) and Cimino and Correale (2005).]

The underlying intuition

For our psychoanalytic theories regarding memory to be valid, they cannot contradict known facts regarding the biology of the mind. Therefore, if neuroscience shows that there are memories that cannot be recollected, then psychoanalytic theory cannot maintain that they can be, and consequently cannot develop a clinical theory of cure that rests on recollection. Furthermore, were there neuroscientific methods or techniques that could distinguish between ideas that could be remembered and those that could not, between those that could be remembered explicitly and those that could be recalled only implicitly, and were these methods to reveal the therapeutic consequences of remembering under the different conditions, then a more sensitive and efficient therapeutic process could be applied. With technological advance, we can look forward to the development of such methods and techniques.

The problems

1. *Objective recollection is not necessarily the aim of analytic treatment.* The neuroscientific findings regarding memory would be relevant only to those analysts who maintain that the actual recollection of the facts of the past events is a major objective of psychoanalytic treatment. This is a debated issue. Aside from when dealing with cases in which there are very specific and massive forms of early trauma, a dominant trend within psychoanalysis is to view the recollection of events per se as having a more limited contribution to the analytic process. It has been argued that, following Freud's shift to a focus on phantasy and transference, two related kinds of processes became much more significant than recollection of facts per se: (a) the unfolding of the patient's tendencies to recollect in a certain way—the ways in which meanings are ascribed and the unconscious dynamics that determine such ascription; and (b) the experience and understanding in the present (in the transference) of past events or meanings that need not ever be recollected per se (Caper, 1999, p. 61; Feldman [internet]; see also Kris, 1956, p. 55; Laplanche, 1992).

It may be seen that, by regarding the neuroscientific findings as highly relevant to the analytic process, dominance is granted to the position that the issue of recollection has always been crucial to the analytic process (Pulver, 2003; Tutte, 2004; Yovell, 2000) and/or that the analytic process must be modified to accommodate the neuroscientifically discovered fact that recollection cannot always be attained (Andrade, 2005). It is important to recognize that this view of the centrality of recollection to traditional psychoanalysis is not supported by any neuroscientific finding, but rather is a consequence of considering neuroscience to be of value to psychoanalysis.

2. *The possibility of recollection and its consequences is not specifically a neuroscientific finding.* The question of whether traumas tend to be remembered explicitly, implicitly or not at all can be the subject of empirical study, but such a study does not belong especially to the field of neuroscience. An adequate response to this question would require an examination of the frequency of recollection of trauma among a group of subjects known to have undergone trauma. Alternatively, one could examine whether recollections of trauma are veridical and also determine the therapeutic consequences of such recollections. Indeed, if it were found that few memories could be recollected or shown to be veridical, it would make little sense to hope to attain such recollection in the course of the analyses. Psychoanalysis should be influenced by such findings. In fact, Freud's recognition of this empirical fact is one factor that determined his shift towards an etiological theory centered on phantasy rather than external trauma. It would be a mistake, however, to regard such empirical facts as neuroscientific ones.

3. *Neuroscientific findings can only reveal the biological processes of forms of memory that are already recognized as such phenomenologically.* The neuroscientific findings that are cited by analysts in the context of trauma and memory explain how certain events that are forgotten, especially traumatic events, could come to be forgotten. For example, they describe the different brain centers and pathways involved in generic, episodic, associative, and procedural memory. However, these explanations of the processes, pathways, and mechanisms involved in remembering

or forgetting events require that there first be a phenomenological distinction between the different forms of remembering and forgetting. That is, we must first take note that certain kinds of events of remembering and forgetting are taking place and only afterwards can we inquire into their neuroscientific basis. Since it is clear that the analytic concern is with the events that are taking place phenomenologically—with how and what the patient is thinking, feeling, remembering, on a psychological level, not a biological one—the consequent neuroscientific biological description of these events does not add to the understanding of memory in any way that could be meaningful to an analyst. Were an analyst to discover that two forms of remembering involve the same neural structures, these two phenomena (distinguished phenomenologically and psychologically) would not then be recognized as less different in nature. Similarly, the discovery that identical forms of remembering actually involve two different brain centers would not make these experiences more distinct in terms of the analyst. Or, to use yet another example, were it to be demonstrated that one could indeed remember what was thought on the basis of neuroscience to be an irretrievable memory, then we would tend to modify neuroscience in order to accommodate this fact of memory. Accordingly, it would be the fact that certain events are never remembered in the course of analysis that would be relevant to determining the course of analysis, not the very presence of a neural state with which a lack of memory tends to be associated.³

4. *Neuroscientific findings do not provide information on the probability of recollection or forgetting of specific events or the consequences of this.* If an early traumatic event is forgotten, neuroscience can describe the neural processes that would tell us why this would happen. But in and of itself it cannot tell us whether that early traumatic event will be forgotten, the likelihood of it being forgotten, or the consequence of it being remembered.

To explain: it may be argued that, since it is agreed that neuroscience explains the conditions that underlie forgotten traumatic events, by applying a reverse path it would indeed be possible to diagnose whether a certain event will remain forever

³In analogy: whether a person can think mathematically is decided by his ability to do so, not by the presence of neural states correlated with the ability to do so. Of course, in extreme conditions (e.g. when entire areas of the brain associated with memory are destroyed), we could know from the neural state that there would be no sense in attempting analysis at all. But in such conditions it may be assumed that the condition would be apparent in an initial interview as well.

It should be noted that this argument is applicable to many different kinds of neuropsychanalytic research, which attempt to reveal the essence of psychological phenomena by describing their underlying neuroscientific determinants or correlates. For example, it has been suggested that we could better understand borderline pathology by observing the neural correlates of emotional and behavioral inhibition among borderline patients (Beutel et al., 2004) or processes of identification through the study of the activation of ‘mirror neurons’ (Olds, 2006; Scalzone, 2005). It has been further argued that, through observation on the neuronal level, it would be possible to demonstrate the actual effects of psychodynamic intervention. Our argument here, however, brings to the fore the fact that the study of the neural correlates cannot deepen our understanding of phenomena that are already recognized on the psychological level and cannot meaningfully inform us about psychological phenomena not recognized as such. This is also one reason why the effects of psychodynamic intervention do not depend on neuroscientific findings. Space does not allow for further elaboration of this point in the present context and will be discussed at greater length in a subsequent paper.

forgotten or how it will be remembered, and also whether the consequence of remembering would be beneficial to the analytic process. That is, it may be the case that some form of brain scan at some future time may allow us to know whether there are traumatic events that have been registered in ways that render them accessible to memory or preclude this possibility. This scan may also tell us of the consequences of remembering.

This argument, however, is problematic. It must be seen that, for the brain scan to provide such information, memories would have to be registered discretely. That is, for the brain scan to be clinically relevant it would have to show that there are specific events of special relevance to the patient's current predicament that are registered in a way that precludes the possibility of their ever being remembered. Were the brain scan to reveal only that there are registered events that cannot be remembered (in any form), this obvious conclusion would be trivial. We all know that we cannot recall all events of our history. But this notion of discrete registration would require extensive information on the history of the patient unknown to the patient himself, as well as information on what has and what has not been registered in his memory. How would gaining such information be possible? Equally problematic is the fact that the notion of discrete registration is incongruent with all commonly accepted theories regarding memory processes. The dominant theories (congruent with Connectionist models of the brain) conceive of these processes in terms of the mind's ability to reconstruct a memory and not in terms of its ability to retrieve a fixed, determined, and coded memory (see Shanon, 1993, pp. 227–30; Leuzinger-Bohleber and Pfeifer, 2002). The notion of discrete registration appeals to us because of a fallacious human tendency to view representation concretely. Although we may know better, we tend to think of events that occur to us as being ingrained as pictures in specific locations in our brain awaiting their retrieval. This tendency, however, may distort our reading and evaluation of the neuroscientific findings in this context.

One final problem with the claim regarding the value of applying neuroscientific findings in reverse has to do with the limitations of such a procedure for determining *the effects* of recollecting specific events. As noted earlier, the claim by the proponents of neuropsychanalysis is that neuroscientific findings can inform us not only about the possibility of recollecting events, but also about the effects of such recollection. However, it is difficult to maintain this claim in the light of the fact that the effects of recollection cannot be isolated from the ongoing analytic context in which the recollection takes place. Indeed, we may accept neuroscientific findings, such as that an exaggerated cortisol response to emotional stress, triggered by the amygdala, can overwhelm the hippocampus of PTSD patients (the finding that Yovell relies on in his clinical example referred to above). And it may be the case that certain interventions in relation to such patients will set off memory processes that are stressful. But such neuroscientific findings do not tell us whether the experience of stress is analytically desirable. To say that, in certain situations, stress will cause the hippocampus to be overwhelmed does not resolve anything, for an 'overwhelmed hippocampus' can be good or bad from an analytic perspective depending on many factors. If, for example, the analytic context is one in which stress can be contained

and understood then the ‘overwhelmed hippocampus’ that underlies it may be a good thing, and if not it may be bad. In fact, what is an overwhelmed hippocampus but a person who feels overwhelmed concomitantly to a change in the state of his hippocampus? Whether being overwhelmed in this way is desirable for the analytic process or not is not for neuroscience to decide or predict. The analytic context involves innumerable factors that are not captured by the underlying neurological state and, as such, cannot be defined in advance for each specific patient and event to be recalled. To think otherwise is to view our memories and their meanings as events, which, like the biological substrate of our brain, are completely definable without an understanding of the complex context in which they find expression (see Cavell, 1993, pp. 9–42; Davidson, 1980, pp. 207–24).⁴

Motivation and affect

The nature of the claims that are put forth by the proponents of neuropsychanalysis regarding motivation and affect are similar, as are also the problems with these claims and the intuitions that underlie their acceptance. We first focus on the issue of motivation and then briefly refer to how the ideas put forth may be applied to the neuroscientific study of affect as well.

The claim

Neuroscientific research reveals the existence of several motivational centers. This research supports the development of new psychoanalytic theories that view the individual in terms of a variety of motivations, and points to the inadequacy of classical theory, which limits motivation to instinctual motives (Pulver, 2003, p. 764). Pulver states,

Change ... is in the wind. The clear demonstration by neuroscience of specific motivational systems in the brain is having an impact. These systems include such motivations as sexuality, aggression, social attachment, maternal devotion, hunger, thirst, and safety, as well as a more general seeking system (Panksepp 1998) responsible for the feeling of desire (in drive theory called pressure) that accompanies all motivation. We are beginning to integrate these findings into our own hypotheses. (p. 764)

The underlying intuition

The essential nature of human motivation is a biological issue, determined by the kinds of motivational centers that exist within the brain. These centers can be known most immediately through neuroscientific study of the brain. The psychoanalytic theory of motivation attempts to determine essential motivations through the study of clinical or other phenomenological data. The motivational categories that it can

⁴One practical danger of the misguided reliance on biological theories in this context is that, when memories do not readily emerge, the analyst will quickly tend to conclude that the event has been registered in a form that could not be explicitly recollected and would abandon efforts to this end (e.g. Pulver, 2003; Yovell, 2000). As noted earlier, the issue of recollection is overemphasized by the proponents of this approach, but, paradoxically, this could lead to intolerance for the slow process of discovery and revelation that is characteristic of the analytic situation.

put forth through this study, however, will be mere approximations of the biological reality of the motivational system actually found in the brain. Thus, the truth or falsity of such psychoanalytic theories may be judged by the neuroscientific research.

The problems

1. *Psychoanalytic drive theory does not state that drives are the only motivations.* It is apparent that human beings have many different motivations: social attachment, maternal devotion, hunger, thirst, safety, etc. in addition to sexual and aggressive drives. Those who subscribe to the psychoanalytic theories of drive do not deny this obvious fact. Rather, they seek to formulate the psychic dimensions that meaningfully organize the varied motivations, the ways in which they function and are inter-related on a psychodynamic level. Drive theory provides a theoretical formulation of this kind (Freud, 1915, 1938). Thus, the claim that there are motivations additional to those noted by drive theory does not in and of itself put that theory in question, but rather lies at the ground of that theory.

2. *Neuroscientific findings regarding motivation reveal the biological substrate of motivations, not their psychological structure.* Clearly neuroscience does not discover the phenomenon of maternal devotion, hunger, or any other of the motivations it refers to. Rather, first there is the phenomenon and then neuroscience explores how the brain could account for this phenomenon. Were something that we describe as maternal devotion never expressed (directly or indirectly) or recognized as such, there would be no possibility of finding its center and it would make no sense to speak of it as a motivation. Thus, even were the presence of additional motivations to invalidate drive theory, their presence would not be dependent on neuroscience.

But it seems that it is precisely here that the basic intuition regarding the value of neuroscience comes into play. That is, it is argued that indeed there are many *apparent* motivations, but the biological substrate of the motivations reveals their basic structure. There may, for example, be numerous experienced motivations and only a handful of identified motivational centers that account for them on the biological, brain level. These identified centers are the most fundamental elements of the structure of human motivation, and thus any psychoanalytic theory of motivation must be adapted to fit neuroscientific findings regarding these centers.

Our response to this argument is that the notion that the ultimate structure of motivation is biological is an ungrounded assumption, and one that from the outset puts in question the value of any analytic inquiry. Just as we may point to aesthetic categories or mathematical categories to explain art and numbers, without these categories necessarily corresponding to specific brain structures, so we may point to categories that explain human experience and functioning without those categories being identified as biological centers of motivation. In other words, we may immediately experience a dozen factors to be motivations; we may find that biologically these motivations are associated with a handful of biological centers, and we may still maintain that human experience and psychic functioning is best explained in terms of the existence of two drives.

As noted above, this debate over the relevance of the neuroscientific findings regarding motivation is also applicable to the area of affect. In the latter context,

the claim is that neuroscience reveals the existence of basic affects and that this contradicts the classical analytic theory that views affect as discharge products of drives (Pulver, 2003, p. 764). The idea that biology determines how affect should be categorized is the basic underlying intuition. The problems that emerge with this claim, both in terms of the simplification of the nature of the analytic theory of affect and in terms of the level of discourse of this theory, parallel those that have emerged in the context of motivation.

Dream theory

The claim

Neuroscientific findings can corroborate or disprove psychoanalytic dream theory. Psychoanalytic dream theory posits that the dream is a product of libidinal pressure seeking an outlet. It is an expression within consciousness of the operation of complex mental processes involving motivational mechanisms that normally 'motivate the subject to seek out and engage with external objects which can satisfy its inner biological needs' (Solms [internet]). Early studies pointing to the connection between REM and dreaming put this theory in question since REM was seen to be derived from automatic activity coming from a certain area of the brain stem, occurring at a certain regularity. Based on these studies, dreaming could not be connected to the activation of motivational mechanisms. Mark Solms [internet], the leading neuropsychanalytic researcher of dreaming, summarizes this point:

If we assume that the physiological substrate of consciousness is in the forebrain, these facts [i.e. that REM is automatically generated by brain stem mechanisms] completely eliminate any possible contribution of ideas (or their neural substrate) to the primary driving force of the dream process (Hobson & McCarley, 1977, p. 1346, 1338).

On this basis, it seemed justifiable to conclude that the causal mechanisms underlying dreaming were 'motivationally neutral' (McCarley & Hobson, 1977, p1219) and that dream imagery was nothing more than 'the best possible fit of intrinsically inchoate data produced by the auto-activated brain-mind' (Hobson, 1988, p204).

More recent neuroscientific findings, however, have shown that it is not possible to completely identify dreaming with REM and that higher-level brain activity involving both the frontal and the occipital lobes is necessary for the process to occur. This, it is claimed, points to the fact that somatic stimuli (REM activity being one of them) instigate a series of events ultimately leading to the dream, but that higher-level motivational processes are responsible for the appearance of the dream (Solms [internet]). The involvement of these motivational processes provides neuroscientific support for Freud's dream theory (Solms, 1997a).

The underlying intuition

Psychoanalytic dream theory is founded on the idea that the dream is a product of high-level motivational factors. If the neuroscientific substrate underlying dreaming indicates that higher-level motivational centers cannot be involved, then the theory cannot be true, and, if it indicates that such centers are involved, then the theory gains support. It is necessary to rely on such neuroscientific findings because the

Freudian psychoanalytic dream theory has not been scientifically validated on the basis of findings from within the analytic setting.

The problems

1. *The limited relevance of the motivational source to the psychoanalytic theory that dreams are meaningful.* The claim regarding the contribution of neuroscience to the psychoanalytic theory of dreams rests on the notion that, central to that theory is a proposition that the meanings of dreams are derived from the activation of a motivational source. Therefore, if there are no such motivational sources that initiate the dream, then the analytic dream theory is proven invalid. However, while the proposition that dreams have meaning is essential to any psychoanalytic theory of dreams, the idea that dreams or their meaning must be tied to a motivational source is not. Consequently, findings to the effect that the dream cannot have a motivational source would not invalidate the psychoanalytic dream theory.

Freud does of course speak of the source of the dream or its instigator being motivated by libidinal pressures in the form of instinctual wishes. But two factors should be taken into account: (a) he does not consider these wishes to be the *sole* source of dreams—there are also preconscious and somatic sources (Freud, 1900), as well as the pressure of traumatic fixations (Freud, 1920); and (b) psychoanalytic dream theory from Freud onwards distinguishes between *meaning* and *source*. It is *meaning* that was and is the main concern of psychoanalytic practice and its dream theory, independently of the question of the *source* of the meaning. As Freud explains right at the start of *The interpretation of dreams*:

In the pages that follow I shall bring forward proof that there is a psychological technique which makes it possible to interpret dreams, and that, if that procedure is employed, every dream reveals itself as a psychical structure which has a meaning and which can be inserted at an assignable point in the mental activities of waking life. (1900, p. 1)

This focus on meaning does not deny or even downplay the role of the wish. The meaning of a dream may be a wish, and Freud maintained that it usually was, but for this to be the case it was not necessary that the dream be first *instigated* by a wish or some other motivational mechanism. Freud also maintained that the wish could be inserted into the dream in the course of the dreamwork and that the meaning of the dream, whether wishful or otherwise, does not depend on its having a motivational source. He writes, for example, that trauma dreams are motivated by ‘the upward pressure of the traumatic fixation to become active’ and do not reveal a wishful meaning because ‘there is a failure in the functioning of the dream-work, which would like to transform the memory-traces of the traumatic event into the fulfillment of a wish’ (1933, p. 29). In other words, what determines the wishful meaning of the dream is the function of the dreamwork, which transforms the material that arises (for whatever reason) in the course of sleep. Other analysts have followed this distinction between the source of the dream and its meaning (see Sandler et al., 1997, p. 120; Blass, 2002). This is reflected in the minimal concern found in the analytic literature with the issue of the original instigator or source of the dream, relative to the issue of meaning (Etchegoyen, 1991, p. 331; Flanders, 1993). In any

case, the focus of analytic work has always been on the discovery of the unconscious meanings of the dream (including motivational meanings) and not on discerning whether those meanings are what caused the dream to be in the first place.

In the light of this focus, the neuroscientific findings regarding the source of the dream are not actually relevant to it. Thus, even if the REM studies were to show that the dream is ‘automatically generated by brainstem mechanisms’, this would not contradict the possibility that the dream contains specific meanings.

2. *Neuroscientific findings regarding brain activity during the dream is not informative regarding the meaningfulness of that activity.* It may be argued that, even when the question of the source of the dream is put aside, the idea that the dream contains meaning still presupposes the involvement of higher-level brain activity and this can indeed be determined by the neuroscientific research. Such an argument would be misguided. First, the content of the dream in itself reflects higher levels of functioning. In our dreams we think, reason, decide, plan, etc. Neuroscience is not needed to demonstrate this, just as we do not await neuroscience to know that our wakeful states involve higher levels of functioning.

But, second, the demonstration of the involvement of higher-level functioning does not mean that it is being applied meaningfully. In other words, even if neuroscience proves that there is higher-level brain activity going on during dreaming, this does not mean that this brain activity is being applied in a meaningful way. It may be that our higher mental activities are being applied nonsensically: that our connections are random, that our memories are confused, that our reasoning is illogical, and that our decisions are based on the neglect of our best interests. In fact, neuroscientists have never denied that higher-level brain activity takes place during dreaming, and at the same time have consistently questioned the meaningfulness of that activity (Domhoff, 2004). Therefore, it may be seen that the demonstration of the presence of higher-level brain activity does nothing to support the psychoanalytic dream theory.

At this point, it is necessary to recognize that the question of whether meaningful activity is going on in the brain during the dream, a question that is indeed relevant to psychoanalysis, is not a neuroscientific question (see Blass, 2002). While meaningful thoughts must have a biological substrate, the *meaningfulness* of these thoughts is a function of human discourse, not of biology. It is determined by language, culture, personal experience, and context that frame the ways in which our thoughts are interconnected and valued. Just as the meaning and meaningfulness of words cannot be determined by the very words that are voiced, but rather depend on whether and how the person who voices them understands the language of the words voiced, so the meaningfulness of dreams and thoughts stands beyond the mere objective description of their underlying neural correlates.

Theories of the mind

The claim

The theory of mind upon which psychoanalytic theory rests is outdated and should be replaced by a neuroscientific model. There are three main aspects to this claim:

(a) the classical analytic theory of the mind is limited; (b) it should be replaced by a contemporary neuroscientific theory; and (c) adopting this contemporary theory impacts psychoanalytic practice.

It is argued that the Freudian models of the mind fail to account for the data that is emerging from the experimental study of cognition. For example, Westen and Gabbard write:

[D]ata from several lines of experimental research now clearly indicate that many qualities Freud attributed to primary process thought—that it is unconscious, imagistic, wish-fulfilling or drive-dominated, irrational, developmentally primitive, prelinguistic, and associative—are in fact dissociable, that is, characteristic of different kinds of unconscious (and some conscious) processes, and do not constitute a single form of mentation. ... Some associative processes are imagistic, and others, such as those that occur in semantic priming experiments, are not. ... Some associative processes involve wishes, whereas others involve fears. ... Some associative processes ... have little to do with affect or motivation at all. And many unconscious processes are developmentally quite advanced, such as the processes that guide the timing of an interpretation in an analytic hour. (2002a, p. 56)

From this, the authors conclude that, while Freud's contribution to the understanding of the mind was important, one has 'no choice' but to take into account the data that has been systematically collected over the years and to change the psychoanalytic theory of mind accordingly (pp. 55–6). They go on to argue that it must be replaced by cognitive models that would provide the most comprehensive framework for the understanding and continued study of the new data and, in their view, such models are neurocognitive ones.

By adopting such neurocognitive models, not only are theoretical misconceptions avoided, but psychoanalytic controversies can be resolved. For example, recognizing the validity of neurocognitive model of Connectionism resolves the controversy over the involvement of real aspects of the specific analytic relationship in the shaping of the transference. How so? In a nutshell, Connectionism is a model that explains how the brain processes information through a complex network of processing units that function interactively. The network's structure and architecture determines, and to a large extent is determined by, the experiences the person undergoes. Thus, the network's functioning is always impacted by both new experiences and stimuli and the network's already shaped nature. It is then argued that, on the basis of this theory, it is necessary to conclude that the transference is shaped not only by past realities, but also by the ongoing impact of the present analytic relationship. Past realities determine the nature of the connections that are formed in the neural network between different nodal points, and the present reality (in analysis, the analytic relationship) determines which of these connections will be aroused at a given point in time (Westen and Gabbard, 2002b).

More generally, understanding of the underlying neural networks would also have a broad impact on practice because it makes clear that 'Changing problematic internal object relations means changing the networks that represent significant others' (Gabbard and Westen, 2003, p. 828). This would lead us to direct our efforts towards changing the neural networks in order to meet the aim of modifying problematic object relations. While this may take place in part through traditional

analytic methods, it would also involve an expansion of these methods and their integration with non-analytic methods that impact the neural networks more directly (2003, p. 828).

The underlying intuition

Both psychoanalysis and neuroscientific cognitive theories are attempts to explain the working of the mind and in this sense are ‘ultimately pursuing the same task’ (as stated on the introductory page of the *Journal of Neuropsychoanalysis*). The neuroscientific theories adequately explain the empirical data regarding the mind’s functioning and have tested their models according to acceptable empirical standards. Psychoanalysis has failed in these regards. Consequently, psychoanalysis will have to adopt neuroscientific theories in order to adequately pursue its task. With the adoption of these theories, psychoanalysis also benefits from the contribution of these theories to the understanding of human activity and change.

The problems

1. *Misguided representation of the scope and aims of psychoanalytic theory.* Psychoanalytic theories of mind are aimed at explaining mental phenomena and functioning relevant to psychoanalysis. They are not directly concerned with understanding the working of the mind *in general*, with understanding the underpinnings of logic or mathematics, the processes involved in learning and perception, how language evolves, or automatic thinking. As a rule, psychoanalysis has not claimed to offer a comprehensive model that would explain all forms of thought processes and on all levels (Brook, 1992, p. 278; Edelson, 1986, p. 508; Freud, 1905, p. 130, 1914, p. 50). It may be seen, however, that the neuropsychoanalytic criticisms of analytic theories of mind rest on the assumption that these theories should account for new cognitive findings that pertain to the functioning of the mind in general; that they are competing with neurocognitive theories for the explanation of the same subjects of study. This is an unbased and misguided assumption, which neglects the special scope of explanation of psychoanalytic models.⁵

Psychoanalytic theory seems to also be misrepresented when it comes to the examination of the clinical relevance of the neuroscientific models of the mind. The clinical concepts to which these models are believed to be relevant seem to be constricted and simplified in a way that leaves room for the neuroscientific contribution. To return to the example of transference, one would be hard pressed to find an analyst who did not think that both internal and external influences shape the nature of the transference. Freud was certainly aware of both kinds of influences (as apparent, for example, in his case studies and technical papers). The psychoanalytic controversy regarding transference does not revolve around the question of whether there *are* or *are not* external influences that determine the patient’s relationship to the analyst, but rather whether such influences should be the focus of attention in analysis or whether the focus should be primarily on the

⁵Psychoanalytic models must not, of course, contradict the new cognitive findings, but this is not what is being claimed in this context.

internal unconscious determinants (e.g. Caper, 1997, p. 23; Ponsi, 1997, p. 245). The question is what kind of attention and intervention best serves an analytic process. On this latter question, neuroscience has nothing to say.

The nature of psychoanalysis is further misrepresented in the idea that analytic aims are served by a neurocognitive view of the mind because of the possibilities that this opens for bringing about positive change through modifications of the underlying neural networks. What is misrepresented is the fact that psychoanalysis is defined by a certain method of change. An analyst who conducts behavior therapy in the effort to make his patient's relationships more adaptive may be doing something very worthy, but he is not doing psychoanalysis, he is doing behavior therapy. Similarly, modifying neural networks may lead to positive change, but this does not mean that such modification is psychoanalysis and thus facilitating such modification is not a contribution to psychoanalysis (Blass, 2003).

2. *The limited value of neuroscientific models of the mind.* Cognitive theories of the mind seek to explain human thought processes in terms of psychological functions or structures, and the neuroscientific variant of these theories seeks to explain these functions and structures in terms of their neuronal substrate. Within the field of cognition, this focus on neuroscience is controversial and is considered by some leading cognitive psychologists to reflect a shift away from the psychological dimension that characterizes cognition as a psychological domain (see Fodor and Pylyshyn, 1988; Shanon, 1992). In other words, putting aside the question of relevance to psychoanalysis per se, there is a question of the necessity of turning to neuroscience for the understanding of cognitive processes. What are needed are good theories of the mind, not necessarily good neuroscientific theories of the mind.

The limited value of neuroscientific theories in this context may be highlighted through the following illustration. Let us imagine a patient who always sees all people as envious of her. Regardless of the situation, this apparently paranoid view predominates. It would seem, then, that in this case there would be no influence of the current situation on the transference. Counter to what might have been expected on the basis of the Connectionist view of the mind, in the case of this patient current realities do not in any way determine the kinds of connections that find expression. Has the Connectionist theory then been refuted? No, it has not. Rather, the proponents of this theory would claim that, for this person, the dominance of a certain inner connection is such that no special stimulus is needed to arouse it. Indeed, there are both internal and external influences, but in this case the impact of the external is virtually nil.

Through this illustration, it becomes apparent that the neuroscientific level is subordinate to the phenomenological level and does not enrich its understanding. To insist that there is always an influence of the current external reality but sometimes that influence is nil is simply to avoid saying that sometimes there is no influence of the current reality, and to avoid recognizing that whether or not there is such an influence is a phenomenological fact, not a neuroscientific finding. Neuroscience here does not help us understand whether a patient is being influenced by the current reality, rather, after this is determined clinically, it offers a biological explanation of that influence.

3. *The fallacy that only the biological level of explanation can describe what is real in the mind.* As we have seen, the search for a cognitive theory that would better explain new cognitive data leads the proponents of the neuroscientific trend to adopt neurocognitive theories. But, as we have also seen, the shift to the biological level is neither necessary nor well grounded. It seems to rest on the notion that only that level of explanation pertains to something real and concrete, whereas psychological levels of explanation (whether psychoanalytic or other kinds) are merely metaphorical and will always remain hypothetical (see Westen and Gabbard, 2002a, p. 57). No reasons have been offered for this preferred status awarded to the biological level of explanation.

Summary and implications

All psychological phenomena require a biological substrate and biology can set limits on psychological experience. These facts are not in question. Understandably, this may lead those with an interest in the relationship between the psychological and biological domains to study some of the recent neuroscientific writings. What we question in the present article is whether the study of such writings contributes in any way to the understanding or development of psychoanalysis as theory or practice; whether neuroscience is of value to psychoanalysis per se. Through our examination of the claims of neuropsychology, we presented the arguments in favor of such study and ascription of such value and we pointed to the intuitions that buttress them: psychoanalysis deals with memory, with the interpretation of dreams, motivation, and the functioning of the mind. If these are determined and limited by the neural networks of the mind, then, of course, it is argued, we must know the nature of these biological networks. In this way we could limit futile attempts to recall the past and understand dreams where, or if, this is not actually possible. Our analytic theories of motivation, affect and mind could be modified so that they would be in accord with what has already been tested and confirmed about these systems in the biological realm and thus be scientifically validated. The intuitions here are strong.

But, as we have shown in the course of this paper, these intuitions are misguided. They attribute to neuroscience potential beyond its scope. Neuroscience can describe the neural networks underlying psychological phenomena, patterns, and tendencies, but these phenomena, patterns, and tendencies are recognized and their laws specified without any information regarding the neurons that function concomitantly. Only once these are recognized on the psychological level can neuroscience proceed with its description, but it does so without adding anything to the psychological knowledge already obtained. Neuroscience can tell us of the biology of the mind while dreaming, while feeling motivated, while having affective experience, but not of the meaningfulness of that biological substrate or how it can be understood and categorized meaningfully. Since psychoanalysis is a process and theory geared towards understanding the latent meanings and psychic truths that determine the human psyche, such neuroscientific findings are irrelevant to its aims and practice.

Here we emphasize that psychoanalysis should be less interested than other scientific fields are in determining biological or other physical correlates of experience. While in many other fields science naturally develops by moving from experience

to the understanding of the physical basis of experience (e.g. from the experience of water to the understanding of the chemical basis of water), for psychoanalysis such development does not advance the field. This is for two main reasons: first, the subject of psychoanalysis is not a clearly defined phenomenon. Its subject, the meanings of thoughts and experiences, are never fully contained by the specific thoughts and experiences which convey them, but rather are determined by an indefinitely broader human context in which these occur. The same thoughts, words, or ideas, will have different meanings depending on what preceded them, or what occurred as they were expressed. No field has made this point more apparent than psychoanalysis. But, if the meanings are not defined by any definable experience, then observing the biological, neural correlates of the experience will never capture the subject of psychoanalysis. For example, there is no specific biological correlate to the idea 'father' that would capture the innumerable meanings of the idea to any given individual (see Edelson, 1986).

The second factor that distinguishes psychoanalysis from other fields that have an interest in physical correlates of phenomena is that psychoanalysis seeks to facilitate change in so far as this occurs through a psychoanalytic process, not a physical or biological one. While determining the physical correlates of phenomena may allow us to manipulate phenomena in physical ways, it does not further the understanding of the purely mental, psychological level of the mind relevant to the analytic process *per se*. Thus, even if it were possible to determine neural correlates that would capture meanings, these would not further psychoanalysis, but rather only those forms of therapy, for example psychiatry, that are concerned with changing the mind through its manipulation on the neurological level.

Of course, one could explain human action and experience in various biological ways and undoubtedly one could influence action and experience by introducing biological changes. But biological explanation will not deepen our understanding of the influence of latent meanings or psychic truths—the domain of psychoanalysis. Obviously, it would be wrong to ignore the effects of brain damage or illness and to interpret meaningless biological events as though they had psychic meaning. But, while it is important to avoid such error, to do so does not require of the analyst to enter a dialogue with neuroscience, but rather to be familiar with clinical pictures that may suggest that influences of a non-psychical, non-meaningful, kind are playing a major role.

It is difficult to set forth these arguments against the current neuropsychanalytic trend because they are supported by a broader trend that is gaining strength in Western culture—biologism. This is the view that what is real is biological. There are two aspects to this contemporary trend that are relevant here. One is the notion that our thoughts and experiences as subjective psychological entities are secondary and ephemeral relative to the concrete reality of tangible neural structures. This is why claims such as that we need to see motivational centers in the brain in order to know what human motivations really are, or that we must see neural networks to know what the mind really is, make sense to us.

The second aspect is a focus on material ends rather than on process or method. What is important from this perspective is attaining health or well-being and

therefore the most efficient way towards that end is the best way towards it. This is why one may be inclined to agree that, if neuropsychanalysis can show how modifications of neural networks could bring about change in one's psychic state, then we ought to be open to future possibilities of integrating psychoanalysis with methods of change that would be based on neuroscience.

We maintain that this biologicistic perspective that underlies neuropsychanalysis runs counter to the essence of a psychoanalytic worldview. While the proponents of neuropsychanalysis argue that they are not reducing the psychological domain to the biological one (see e.g. Solms, 1995, 1997b; Kandel, 1999, p. 519; Westen and Gabbard, 2002a, pp. 58–60), nevertheless, neuropsychanalysis, in effect, ascribes to biology a kind of significance that does away with the value of meaning and psychic truth which is at the foundation of psychoanalysis. For it is precisely the concern with meaning and truth, which lies at the heart of psychoanalysis, which neuroscience cannot capture. Moreover, meaning and truth from the psychoanalytic perspective always remains to some extent unknown and in a constant process of unfolding, notions very foreign to the neuroscientific view of mental reality as a given biological substrate. Thus, to speak of neuroscience and psychoanalysis as two irreducible perspectives on human experience would be like considering chemistry and art as two irreducible perspectives on the paintings of Van Gogh. Indeed there would be no painting without the chemical components of paint and canvas, but to suggest that these components provide an explanation of the painting that would be valuable for the artist is to deny the value of art and that which can be seen only through an artistic perspective.

Neuropsychanalysis' denial of the unique psychoanalytic perspective may be seen in the ways in which psychoanalytic theory and practice is modified in the neuropsychanalytic descriptions. As we have illustrated, in these descriptions psychoanalysis becomes a practice especially concerned with the issue of recollection of facts, the heart of its dream theory is described in terms of the wishful source of dreams, its theory of mind as a model aimed at explaining all cognitive functioning. All these shifts diminish the role of psychic meaningfulness in ways that allow for the neuroscientific findings to have some relevance for psychoanalysis. Consequently, it is maintained that psychoanalytic questions could be decided by turning to these findings, rather than through engaging in complex discourse regarding the understanding and conceptualization of clinical material. This denial of the psychoanalytic worldview is also dominant in the view that change brought about through methods based on neuroscience does not differ in any significant ways from change brought about psychoanalytically. What matters most is the change. Writing for an analytic audience, Gabbard and Westen explain,

Readers are likely at various points to wonder about the extent to which some of the technical suggestions we are advocating are analytic. We would suggest deferring the question of whether these principles or techniques are analytic and focusing instead on whether they are *therapeutic*. If the answer to that question is affirmative, the next question is how to integrate them into psychoanalytic or psychotherapeutic practice in a way that is most helpful to the patient. The question of whether something is analytic may at times be useful, but it can, we believe, become a countertransference snare that diverts our attention away from

understanding therapeutic action—that is, from understanding what helps people change aspects of their character and problematic compromise formations so that they can live more satisfying lives. (2003, pp. 826–7)

But essential to psychoanalysis is the view that the process of self-understanding, of insight, of coming to know oneself or even of attempting to do so, is the kind of satisfaction that psychoanalytic practice has to offer (Blass, 2003). And just as meaning and psychic truth are real, independently of considering their neural substrates, so the analytic process of seeking to discover meaning is real and valuable, independently of other therapeutic outcomes which may follow from it.

Conclusion

In the second part of the third essay in his book *Moses and Monotheism*, Freud describes an advance in human nature that took place when Moses prohibited making an image of God. This, he explains, if accepted would have a profound effect. ‘For it meant that a sensory perception was given second place to what may be called an abstract idea—a triumph of intellectuality [*Geistigkeit*]⁶ over sensuality’ (1939, p. 113). Neuropsychoanalysis over the past decade has been leading psychoanalysis towards an appreciation of the sensory, the physical, the visual, at the expense of psychological meaning, truth, and ideas that cannot be captured in the images of a PET scan, no matter how technologically advanced. In presenting the case against neuropsychoanalysis it has been our intention to offer arguments that counter this contemporary biologization of psychoanalysis and legitimize psychoanalysis’ focused concern with the psychic dimension of human existence [‘the worthier alternative’ according to Freud (1939, p. 115)] that has been put in question by this new trend.

Translations of summary

Was gegen die Neuropsychoanalyse spricht: über Trugschlüsse, die dem jüngsten naturwissenschaftlichen Trend in der Psychoanalyse und seinen negativen Auswirkungen auf den psychoanalytischen Diskurs zugrunde liegen. Die Autoren legen eine kritische Untersuchung der Thesen vor, die die Repräsentanten der erstarkenden neuropsychoanalytischen Strömung zugunsten der Relevanz und Wichtigkeit neurowissenschaftlicher Erkenntnisse für die Entwicklung und Rechtfertigung der psychoanalytischen Theorie und Praxis anführen. Sie decken sowohl einige der intuitiven Annahmen auf, die zur Popularität der neuropsychoanalytischen Thesen beigetragen haben, als auch die Trugschlüsse, die diesen Thesen und Intuitionen zugrunde liegen. Sie vertreten die Ansicht, dass es nun von entscheidender Bedeutung sei, dem neuropsychoanalytischen Trend entgegenzutreten, weil der Debatte über die Relevanz der Neurowissenschaften für die Psychoanalyse eine Auseinandersetzung über den eigentlichen Charakter der psychoanalytischen Theorie und Praxis zugrunde liege. In einer biologischen Perspektive, in der einzig und allein das, was biologisch ist, als real anerkannt wird, vermittelt dieser neue Trend letztlich eine Vision der Psychoanalyse, die die Signifikanz des unverwechselbaren psychoanalytischen Anliegens, nämlich des Verstehens von Bedeutungen, und den Stellenwert des Diskurses für die Wahrnehmung und Begründung dieser Bedeutungen beschneidet.

Un alegato contra el neuropsicoanálisis: Acerca de las falacias que subyacen en las últimas tendencias científicas del psicoanálisis y su impacto negativo sobre el discurso psicoanalítico. En este trabajo los autores ofrecen una revisión crítica de los planteamientos de los partidarios de la creciente tendencia neuropsicoanalítica en el sentido de que los hallazgos neurocientíficos son relevantes e importantes para

⁶This term has no immediate English equivalent and Strachey reluctantly rendered it as ‘intellectuality’ (Freud, 1939, footnote 1). Its literal meaning would be ‘pertaining to that which belongs to the human spirit’.

el desarrollo y la justificación de la teoría y la práctica psicoanalíticas. Se ponen en evidencia algunas intuiciones que llevaron a dichos alegatos a la popularidad, y las falacias que subyacen a tales alegatos e intuiciones. Los autores sostienen que hoy es crucial articular el caso contra la tendencia neuropsicoanalítica porque en la base del debate sobre la relevancia de la neurociencia para el psicoanálisis hay una pugna acerca de la naturaleza esencial de la teoría y la práctica psicoanalíticas. Esta nueva tendencia, que se apoya en una perspectiva biologicista para la cual solo lo biológico es real, ofrece una visión del psicoanálisis que limita la significación del psicoanálisis a un único interés: la comprensión de los significados y el papel del discurso en el discernimiento y la justificación de los mismos.

Un plaidoyer contre la neuropsychanalyse : sur les idées fallacieuses qui sous-tendent la dernière tendance scientifique de la psychanalyse et son impact négatif sur le discours psychanalytique.

Dans le présent article, les auteurs proposent un examen critique des prétentions des promoteurs de la tendance neuropsychanalytique actuellement en vogue, selon lesquelles les données neuroscientifiques sont pertinentes et importantes pour le développement et la justification de la théorie et de la pratique psychanalytiques. Les auteurs se proposent de mettre en lumière certaines des intuitions qui ont conduit à la propagation des prétentions neuropsychanalytiques et les idées fallacieuses qui sous-tendent ces prétentions et ces intuitions. Leur argument est qu'il est crucial, actuellement, de formuler un plaidoyer contre la tendance neuropsychanalytique parce que, sous-jacent au débat sur la pertinence des neurosciences par rapport à la psychanalyse, se trouve le conflit sur l'essence et la nature de la théorie et de la pratique psychanalytiques. Reposant sur une perspective biologisante, selon laquelle seul ce qui est biologique est réel, cette nouvelle tendance offre en réalité une vision de la psychanalyse qui limite sa signification à la seule préoccupation psychanalytique de la compréhension du sens (psychique) et du rôle du discours pour discerner et justifier les différents sens (significations).

Contro la neuropsicoanalisi: sull'infondatezza delle più recenti tendenze in psicoanalisi e relativo impatto sul discorso psicoanalitico.

In questo articolo gli autori offrono un esame critico di quanto viene asserito dai sempre più numerosi fautori della neuropsicoanalisi: che i ritrovati neuroscientifici hanno importanza e rilevanza per lo sviluppo e la giustificazione della teoria e prassi psicoanalitica. Vengono messe in evidenza alcune delle intuizioni che hanno portato alla popolarità di queste asserzioni neuropsicoanalitiche e si dimostra la loro fallacia. Gli autori sostengono che sia di cruciale importanza in questo momento opporsi in maniera sistematica alle tendenze neuropsicoanalitiche perché alla base del dibattito sulla rilevanza delle neuroscienze in psicoanalisi è in gioco l'essenza stessa della teoria e prassi psicoanalitica. Questa nuova tendenza, che si basa su una prospettiva biologica, per cui è reale solo ciò che è biologico, offre una visione della psicoanalisi defraudata del suo più profondo obiettivo di comprensione dei significati e dell'importanza del ruolo del discorso analitico nel discernimento e giustificazione degli stessi.

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