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“[H]E IS NO MORE A PERSON NOW BUT A WHOLE CLIMATE OF OPINION” (AUDEN, 1940)

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A man leaving the theater after seeing Hamlet for the first time says, “*I don’t see why everyone thinks it’s such a good play. It’s full of clichés*” – Traditional joke.

Freud was a prolific, and often prescient, theorist. A criticism of his theories is that they have not been tested scientifically and they may in fact be untestable with current scientific methods. The article in this issue of *Cortex* by Turnbull and Solms (p. 1083), compellingly refutes this criticism. They assert that aspects of Freud’s theories are testable, and that some of his theories, for example the theory of mental activity outside of conscious awareness, have been tested and shown to be correct. We agree with Turnbull and Solms that Freud’s theories should be empirically tested. Turnbull and Solms also argue that some of Freud’s theories have been unnecessarily rejected by the scientific community. We agree and in this commentary we argue that the converse is true as well; we assert that some of Freud’s theories have been accepted by the scientific and clinical communities without sufficient proof. While Turnbull and Solms (2007, this issue) argue not to throw out the Freudian baby with the bathwater, we claim that some babies are being kept unnecessarily and unhealthily in dirty bathwater.

In the article by Turnbull and Solms (2007, this issue), they use Freud’s claim that “mental activity is fundamentally grounded in a set of motivation and emotion systems” as an example of a confirmed Freudian theory, which we do not contest. However, in his “instinct” or “drive” theory (the term used depends on the variable translation of the German word “Trieb”), Freud proposed that libidinal and emotional drives (the id) are modified and inhibited by opposing forces (represented as the ego and superego) forming a balance of drive and inhibition of drive. Emotional drive has since been associated with the limbic system and inhibition of these drives with the prefrontal cortex (PFC). We argue that while this model has face validity and a pleasing symmetry – after all it is a law of physics that a force must be countered by an opposing and equal force to achieve a stable system – widely accepted aspects of this theory are unproven and likely incorrect. The drive theory can appear to be supported by human lesion data. Patients with damage to their PFC who subsequently demonstrate socially inappropriate behaviors (for example a patient walking up to strangers and asking if they will have sex with him or her) are said to suffer from “disinhibition”. According to drive theory, the opposing force to this patient’s libidinal drive

has been reduced or removed and thus the drive, unfettered, becomes excessive (the patient would also usually be clinically described as ‘hypersexual’). Such a patient would receive a DSM-IV-TR (the psychiatric manual) diagnosis of “Personality Change Due to a General Medical Condition, Disinhibited Subtype” which is described as “the predominant feature is poor impulse control (e.g., as evidenced by sexual indiscretions)” (APA, 2000).

This clinical and scientific formulation is widely accepted, evidenced by the fact that it has been placed in a clinical manual. However, in our laboratory we have proposed an alternative theory. We have asserted that the PFC, rather than containing counterbalancing inhibitory drives, contains memories of how to perform complex behaviors, including the societal rules delineating acceptable behavior. In this view, the patient described above has lost, or at least degraded, aspects of the memory that it is considered inappropriate in our society to ask strangers to have sex with you and thus no longer understands that this is a socially prohibited behavior. In support of our theory, patients with frontotemporal dementia have a normal to decreased sexual drive since the onset of their illness (Miller et al., 1995). Please see Grafman (1995) and Huey et al. (2006) for further discussion and testable hypotheses of this model.

We have argued that, with some exceptions, these memories are activated without conscious awareness (Huey et al., 2006), similar to other areas of the brain (e.g., the motor memory of how to ride a bicycle). We believe this theory explains some inconstancies within Freudian theory. For example, in Turnbull and Solms’ article they state that a Freudian theory that has been proven is that “conscious awareness could characterize but a small fraction of mental life, and that our experience of volition might be illusory”. Sexual and emotional drives, by definition, are associated with palpable physical changes and can usually be subjectively described. How then can these drives, as Freud has suggested, reside in the unconscious without conscious detection? Our model based on memories in the PFC resolves this inconsistency; much of memory operates unconsciously and is not associated with consciously detectable changes (e.g., one is not consciously aware of the memory of how to ride a bicycle or how to swim).

Turnbull and Solms demonstrate that some Freudian theories have been proven and others are scientifically testable. We have argued that parts of Freudian theories have been accepted beyond their supporting evidence. These arguments are compatible. Freud’s theories are sufficiently numerous and complex that some aspects are likely to be dismissed, and others accepted, unnecessarily. Similar to Darwin, Freud’s ideas have become enmeshed into our intellectual culture to the point where, like the man in the joke at the start of this commentary, we may not be aware which ideas have been integrated into our scientific assumptions. We agree with Turnbull and Solms that further thought and experimentation is necessary to explore the “climate of opinion” created by one of the most influential theorists of the last 150 years.

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