

### Correspondence

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# Biological v. psychotherapeutic: Friston and psychodynamic therapy

Prosser *et al*<sup>1</sup> cogently argue that psychotherapeutic treatment is no less 'biological' than pharmacotherapy – a point also made by Bowlby, who argued, from an ethological perspective, that behaviour is shaped by evolutionary processes no less than anatomy.<sup>2</sup> However, in linking Friston's 'free energy' principle with cognitive-behavioural therapy (CBT), they fall into the trap of 'brand nominalism' (e.g. Hoover/vacuum cleaner, Coke/soda, Kellogg's/breakfast cereal, etc.). There is a lot more to psychotherapy than CBT; arguably, psychodynamic therapy fits the Friston bill rather better than Beck's baby.

As I (a non-mathematical psychotherapist) understand it, the essence of the free-energy model is the brain's Bayesian shaping of sensory input into experience according to a probabilistic calculus. In healthy psychological functioning, discrepancies between prediction and input are resolved by action to reduce uncertainty and update probabilities. Underlying many psychiatric disorders are relational difficulties arising from outmoded free-energy-reducing models. For the psychologically unwell, both action and the tolerance of uncertainty entailed in updating these models are inhibited.

Psychodynamic therapy addresses this in a number of ways, by: (a) creating a trusting attachment relationship, thereby instating an 'epistemic superhighway', which, by 'borrowing' therapists' brains' free-energy reduction (i.e. their trained Bayesian skills), reduces clients' need to cling to free-energy minimisation at all costs; (b) offering an ambiguous stimulus via the neutral transference-promoting stance of the therapist; (c) promoting 'action', not in the CBT sense of 'experiments', but in exploring the resulting fears and fantasies – i.e. prior predictions – that arise *in vivo* with the therapist; (d) tolerating the free energy liberated by abandoning these predictions; (e) instating more adaptive relational probablisms; and (f) reinforcing the capacity for action and updating in the living/learning everyday world, whether 'natural' or culturally created (e.g. therapeutic day hospitals, group therapy, etc.).

Psychodynamic therapy is thus not, as Freud dubbed it, 'the impossible profession', but the 'improbable profession', in that it helps its clients revise their predictions and, in collaboration with the trusted secure base, to live with, and put to good use, the 'surprise' associated with liberated free energy. These processes are far from exclusively 'top down' as Prosser *et al* suggest, but implicate the amygdala as much as the prefrontal cortex and need to be seen in the context of the synchronous 'social brain' of client and therapist acting in concert.

- 1 Prosser A, Helfer B, Leucht S. Biological v. psychosocial treatments: a myth about pharmacotherapy v. psychotherapy. Br J Psychiatry 2016; 208: 309–11.
- 2 Holmes, J. John Bowlby and Attachment Theory (2nd edn). Routledge, 2013.
- 3 Fonagy P, Allison E. The role of mentalizing and epistemic trust in the therapeutic relationship. *Psychotherapy* 2014; **51**: 372–80.

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### Evidence, not ideology, should guide the use of psychotherapy

Prosser and colleagues<sup>1</sup> argue that any distinction between pharmacotherapy and psychotherapy is a fallacy, as both treatment modalities ultimately target underlying disturbances in neural circuitry. However, the justification of psychotherapy on the basis of its ability to deliver neurobiological changes, as the authors argue, is flawed. Specifically, they assume that mental disorders are simply brain diseases and that behavioural aberrations can be accounted for by disordered neurobiological processes. Despite the tremendous resources dedicated to uncovering the biological basis of mental illness, we have yet to identify a reliable biomarker for any mental disorder.<sup>2</sup> Therefore, proposed mechanisms of neurobiological actions of psychotherapy for mental illness are reductionistic at best and highly speculative at worst.

The reformulation of psychotherapy as a neurobiological treatment is yet another example of the creeping trend towards neuroessentialism.<sup>3</sup> The evidence for the efficacy of psychotherapies in the treatment of mental disorders stands by itself, and grounding this in speculative theories of its neurobiological action has no added value. Further, the authors seem to equate psychotherapy with cognitive–behavioural therapy, although a number of other therapies, including psychoanalytic psychotherapy, have demonstrable efficacy,<sup>4</sup> with the therapeutic effects best conceptualised as occurring through the therapeutic relationship rather than reductionistic neural mechanisms.

Although the authors have the noble aim of championing the role of psychotherapy in the contemporary treatment of mental illness, privileging a biological model of mental disorder may actually reduce clinicians' empathy for their patients.<sup>5</sup> In this way, reducing psychotherapy to simply a biological treatment may undermine its effectiveness. Instead, treatments should be evaluated on the weight of the evidence of their efficacy alone.

- 1 Prosser A, Helfer B, Leucht S. Biological v. psychosocial treatments: a myth about pharmacotherapy v. psychotherapy. Br J Psychiatry 2016; 208: 309–11.
- 2 Deacon BJ. The biomedical model of mental disorder: a critical analysis of its validity, utility, and effects on psychotherapy research. *Clin Psychol Rev* 2013; 33: 846–61.
- 3 Reiner PB. The Rise of Neuroessentialism. In The Oxford Handbook of Neuroethics (eds. J Iles, B Sahakian): 161–75. Oxford University Press, 2011.
- 4 Fonagy P, Rost F, Carlyle JA, McPherson S, Thomas R, Pasco Fearon RM et al. Pragmatic randomized controlled trial of long-term psychoanalytic psychotherapy for treatment-resistant depression: the Tavistock Adult Depression Study (TADS). World Psychiatry 2015; 14: 312–21
- 5 Lebowitz MS, Ahn WK. Effects of biological explanations for mental disorders on clinicians' empathy. Proc Natl Acad Sci USA 2014; 111: 17786–90.

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