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The biopsychosocial model in Anglo-American psychiatry: Past, present and future?

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Abstract

The biopsychosocial model in Anglo-American psychiatry is appraised. Its content and history are described and its scientific and ethical strengths noted. It is situated in relation to competing approaches in the profession, especially an older but enduring biomedical model. The tensions provoked by the latter, in relation to 'anti-psychiatry', the users' movement and 'critical psychiatry' are explored, as a context in which the biopsychosocial model has both emerged and been constrained. At the end of the paper, reasons for the relative lack of success of the model are discussed and its future prospects assessed.

Introduction

This paper will appraise the current status of the biopsychosocial model in Anglo-American psychiatry. The term 'biopsychosocial model' (for brevity in most of this paper 'BPS model') is familiar to most mental health workers. However, its formal status and practical success will be examined, in order to assess whether or not it remains an important organising framework for psychiatry. The historical roots of the model will be traced and the tensions with competing currents in recent psychiatric theory and practice examined.

From Meyer to Clare: the formalisation of the biopsychosocial model by 1980

The BPS model refers to a position spelt out most clearly by George Engel (Engel, 1980). He argued that for psychiatry to generate a fully scientific and inclusive account of mental disorder, bio-reductionist accounts should be superseded by ones which adhere to the insights of general systems theory, developed by the biologists Ludwig von Bertalanffy and Paul Weiss. This entails accepting the following assumptions:

1. Mental disorders (like other medical conditions) emerge within individuals who are part of a whole system.
2. This whole system has physical elements, which are both sub-personal (a nervous system containing organs and networks comprised of cells, which in turn are comprised of molecules and atoms) and supra-personal. The latter entail individuals existing in a psychosocial context of increasing complexity (two person, family, community, culture, society and biosphere).

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3. The elements just described can be conceptualised as an organised systems' hierarchy. Lower levels of organisation are necessary for higher ones to exist but they are not sufficient to describe, or explain, their nature. With each higher level of organisation emergent characteristics appear, which are not present at lower levels. Holistic epistemologies should reflect this complex ontology and thereby avoid reductionism.
4. Attempts at accounting for mental disorder, which only refer to sub-personal factors (the biomedical model in psychiatry), will be reductionist. Engel (and others advocating the BPS model) note two consequences of reductionism. First, diagnostic and etiological accounts from a biomedical approach will be partial and thus scientifically inadequate. Second, such reductionist accounts may well offend humanistic sensibilities and psychiatry might accrue a dehumanising reputation.

These assumptions, summarised from the work of Engel, reinforced a trend within academic psychiatry, begun early in the twentieth century by the Swiss psychiatrist Adolf Meyer, who lived out his professional career in the USA after 1893. His collected works were published two years after his death (Meyer, 1952). According to Gelder (1991), Meyer's work is 'great but difficult to discern. This is because his ideas have become so much part of the basic structure of British clinical psychiatry.' Meyer gained a substantial theoretical influence in British academic psychiatry, via the work of several acolytes, who spent time with him in Baltimore and then went on, or back, to Britain. Henderson & Gillespie (in Scotland after the First World War) and Lewis (in England after the Second World War) were particularly important in this regard. However, Meyer's writing style and terminology were not readily accessible and it was their expression by his followers, which mainly established a Meyerian influence within 'progressive' psychiatric thinking each side of the Atlantic.

Under the leadership of Aubrey Lewis, at the Institute of Psychiatry in London, by the 1970s, the BPS model was established as a form of psychiatric orthodoxy. Prior to 1980, a BPS approach was being reinforced by a number of Institute staff, including Goldberg, Clare, and Shepherd, though the last of these, maybe because of his hostility to psychoanalysis, used the term 'biosocial model'. As a further indication of the BPS model reaching the status of a temporary orthodoxy, at least in London, it came to gain the support of collaborating psychiatric social workers and clinical psychologists (Goldberg & Huxley, 1992; Falloon & Fadden, 1993). It was also reflected in the work of some sociologists, who were becoming independent methodological leaders in the interdisciplinary project of 'social psychiatry' (Brown & Harris, 1978).

Ironically, Meyer may have had less direct influence in his host country, though he was not dismissed or forgotten (Stone, 1997). Scull (1990) documents how even some of Meyer's most dedicated early US followers, such as Henry Cotton, quickly relapsed into a crude bio-determinism in their clinical work. Gelder (ibid) speculates that Meyer's lesser impact in the USA was because of the displacement of his ideas by psychoanalysis, which has enjoyed alternating periods of hegemony with bio-determinism.

Meyer integrated ideas about science and mind developed within British philosophy and evolutionary theory in the nineteenth century, indicating that Anglo-American psychiatry developed through mutual influences criss-crossing the Atlantic. As with other intellectual developments in the Anglophone academy, in is not unusual for émigrés to

fulfil this carrier-cum-developer role (Anderson, 1969). With regard to intellectual labour in psychiatry, Meyer (Swiss) and Lewis (Australian) are good examples of this phenomenon. Another important figure in relation to the BPS model discussed below, Anthony Clare, was an Irishman in Great Britain.

Having distilled his views from British intellectual developments, Meyer offered two core strictures about mental illness. First, he argued that the elucidation of a patient's problems must be in relation to their personal history, not merely their current mental state. This made him wary of a mechanistic, rule-following, Kraepelinian approach to diagnosis, which has resurfaced robustly recently in the Diagnostic and Statistical Manual system (see later). For Meyer, the careful understanding of particular cases in their biographical context needed to be privileged over attempts at fitting patients' symptoms, Procrustean-style, into pre-existing diagnostic categories.

Second, for Meyer, mental illness represented the accumulation of the patient's 'unhealthy' reactions to their environment (Henderson & Gillespie, 1927). He argued that schizophrenia was not a disease but 'a congeries of individual types of reaction having certain general similarities'. Meyer's logic was that biological susceptibility (due to inherited or acquired neurophysiological disturbance) may be important but it is not sufficient to explain the emergence of why this person is mentally ill, in this way, at this point in their lives. As a consequence, Meyer's model was known as 'psychobiology'. Its emphasis upon the lack of sufficiency of bioreductionism and upon the biographical and social context of a person's functioning prefigured the systemic position taken by Engel.

At the time that Engel was spelling out his north American version of the BPS model, Anthony Clare was reflecting on a turbulent period in psychiatry, which culminated in its global crisis. With the appearance of 'Psychiatry in Dissent' (Clare, 1976), psychiatry was emerging from a decade of sustained attack from, what came to be known as, 'anti-psychiatry'. The latter term came to subsume, for proponent and opponent alike, any intellectual challenge to a biomedical model. This included questions about: the logical status of mental illness; the intelligibility of madness; the dehumanisation of institutional care and a biomedical regime; and the reframing of mental illness as deviance. Psychiatry had become a polarised field of debate between what Roth (1973) called 'psychiatry and its critics'.

While this paper is not about 'anti-psychiatry', the cultural reputation of the latter and its standing in the psychiatric profession are relevant. 'Anti-psychiatry' forced psychiatrists to engage with an attack upon their orthodox theory and practice, which stimulated intellectual debate within the profession. At first, senior medical reactions were angry and dismissive in their short responses to 'anti-psychiatry' (e.g. Hamilton, 1973; Roth, 1973). With the passage of time, psychiatric refusals of 'anti-psychiatry' became longer and more considered, with telling titles, such as, 'Reasoning About Madness' (Wing, 1978), 'The Reality of Mental Illness' (Roth & Kroll, 1986) and, the more ambiguous, 'Psychiatry in Dissent' (Clare, 1976). Along with Engel's work, Clare's represented a form of inclusive compromise (a 'portmanteau model' (Baruch & Treacher, 1978)) lying between the biomedical model and radical social critiques of psychiatry. The credibility and influence of the BPS model after the 1970s will be considered below. But before that, its conditions of possibility need

to be examined in a brief historical excursion.

The biopsychosocial model in a longer historical context

The BPS model is not merely one of many competing possibilities, within the contested field of mental illness and psychiatry. It has not been simply constructed, intelligently, but whimsically, by those with an eclectic mentality. What increased the probability of epistemological inclusiveness was the credibility problem inherent to psychiatry as a medical specialism. This problem did not manifest itself immediately but emerged eventually under conditions of warfare.

By the turn of the twentieth century, psychiatry was still relatively new. The term 'psychiatry' first appeared in Britain only in 1858. Prior to that there were only 'mad-doctors' or 'alienists' and many of the large new asylums were run by 'lay' (i.e. non-medical) administrators. In the Victorian period, fledgling psychiatry was faced with two challenges. One was to wrest political control of the asylum system from lay administrators. Another was to construct a credible knowledge base to underpin a form of medical authority over lunacy. These two challenges were met politically by overlapping strategies (Scull, 1979). One was to develop a rhetoric of justification for the professional project of psychiatry. Scull cites an editorial from the 'Journal of Mental Science' (the former title of the 'British Journal of Psychiatry') in 1858, which, in two sentences, captures the essence of this rhetoric: 'Insanity is purely a disease of the brain. The physician is now the responsible guardian of the lunatic and must ever remain so.'

For over 50 years this position remained in the ascendancy in debates about lunacy. Indeed, the asylum system was taken over successfully by medical superintendents and bio-determinism both reflected and contributed to the 'zeitgeist' of eugenic thought in western intellectual culture. Another historian of the period notes that by 1900, 'psychiatry looked on itself with uncritical matter-of-factness as natural-scientific enlightenment, as a fight against demonologic and other social superstitions and for the rights of the mentally ill…' (Doerner, 1970:292).

However, this self-confidence was soon undermined by the 'shellshock problem' emerging after 1914. Stone (1985) notes that there was a fundamental incompatibility between a eugenic view about lunacy, the legacy from Victorian asylum doctors, and the grim reality of officers and gentleman and working class volunteers ('England's finest blood') breaking down with predictable regularity in the trenches of the 'Great War'. To offer a eugenic explanation for the newly and, at first, confusingly, described neurotic reactions, witnessed in these traumatised soldiers, was tantamount to treason. Not only was the monopoly of biodeterminism now broken and, for a while abjured, other modes of psychiatric thinking were made possible (Armstrong, 1980). Neurosis, not just psychosis, now came within the ambit of psychiatry and psychoanalysis was finally offered some legitimacy after its pre-war dismissal by the leaders of psychiatry and neurology.

A year after the end of the Great War both the British Psychoanalytical Society and the Medical Section of the British Psychological Society were established. This moment could be read as the beginnings of a protracted heavyweight contest between biological psychiatrists and medical psychotherapists. However, with the development of the Tavistock Clinic, such a simple polarisation did not become evident, at least at first. Armstrong (ibid) notes that initially the Clinic favoured 'a unified psycho-somatic approach

to diagnosis and treatment' and that the Clinic's founder, Crichton Miller, 'believed that emotions, sepsis, the endocrines and blood circulation all had inter-dependent effects on mental stability'. Thus even within an increasingly psychodynamic view, eclecticism was evident and the Meyerian project in Baltimore already had resonances in London by the early 1920s.

Between the world wars a compromise was worked out between medical psychotherapy and biological psychiatry or the hostile factions eschewed one another. This was true in both US and British psychiatry and eclecticism provided a middle position to adopt within clinical practice or as part of the profession's rhetoric for external consumption. An example of an ambivalent middle position was some of the work of Aubrey Lewis in the early 1930s, which, despite its eclectic bent, focused on genetics and remained for a while within the discourse of eugenics (Gottesman & McGuffin, 1996).

Earlier, Gelder's point about psychoanalysis in north American psychiatry was noted. There, the tension within the American Psychiatric Association, between biological psychiatry and psychoanalysis, has produced an organisational dynamic, which has been less evident in Britain. However, even in Britain, as far as government preferences are concerned, a policy pattern can be discerned of oscillation. Around times of major wars psychodynamic doctors are favoured. For example, J.R. Rees, the director of the Tavistock Clinic was appointed as head of the Army psychiatric service in 1939 (Rees, 1945).

Another example of this oscillation, immediately after the First World War, was of asylum doctors being so out of favour, that none were invited to sit on the Macmillan Commission (1924–1926), which preceded the 1930 Mental Treatment Act (Stone, 1985). After wars, biologically dominated work tends to return to 'business as usual', both in clinical practice and in its influence on the discourse of politicians. A good recent example of this is in relation to government policy makers construing 'treatment' narrowly to mean psychotropic drugs, when reviewing options for compulsory community powers.

The above describes the historical backdrop to the work of those like Meyer and Engel in the USA and Lewis and Clare in Britain. This work has offered psychiatry a challenge, but of greater importance, it has also offered it a rescue package. The fate of this challenge and opportunity will now be examined.

The fate of the biopsychosocial model after 1980

Having addressed the history of the BPS model, its more recent standing will be appraised. Four summary points can be made about the promise offered by the model over the past 20 years:

1. If a BPS model was applied thoroughly in all cases, then psychiatry might enjoy a boost in its acceptability to its recipients.
2. In day-to-day clinical practice the model also creates the option of seamlessly combining physical and psychological treatments, without undermining the doctor's diagnostic authority. Unlike many professional and user critics of psychiatry, the BPS model does not object to diagnosis in principle; it only suggests that this process should privilege the patient and their longitudinal context, over the medical categories applied to them.
3. The model's inclusive, multi-factorial or holistic advantages create the possibility of an approach to mental health problems, which could be both scientific and humanistic.

4. Critics denigrating psychiatry or even demanding its abolition, from 'anti-psychiatry' or the users' movement, could be offered a credible riposte and their attacks defused. Virtually all of the disquiet created by psychiatry since the Second World War has emanated from a constellation of factors within a reductionist biomedical orthodoxy. These concerns from the critics of psychiatry have focused on: a presumptuous attitude about biological aetiology; a singular emphasis on biological treatments; a dehumanising and paternalistic attitude towards patients; and the privileging of the psychiatrist's right to treat over the patient's right to liberty. This psychiatric professional agenda has constituted a wide target to hit by critics and the BPS model provides the means to significantly reduce its size.

However, just as the early twentieth century did not witness a neat dichotomy between psychodynamic and biological stances, the status of the BPS model in the early twenty-first century is by no means clear. Superficially, it is tempting to describe it as an accepted orthodoxy and even to attribute it with a pre-eminent status, but a number of cautions can be identified.

First, the pluralism evident in modern mental health services may be driven more by pragmatism than by the BPS model. Indeed, it might be more accurate to account for the admixture of drugs, ECT and psychological interventions in services as the outcome of different disciplines (and groups within them), who favour different approaches to mental health work, negotiating a form of mutual tolerance (Goldie, 1977). In these organisational circumstances, it is easy to confuse pragmatic co-existence, within a variegated and negotiated order of professionals, with genuine evidence of a shared BPS orthodoxy.

Second, many of the criticisms made by the 'anti-psychiatrists' did not disappear, even though their original form petered out within debates about mental health in the 1970s. They were neither definitively refuted (by those like Hamilton and Roth) nor were they permanently defused by partial incorporation (by those like Clare). The political concerns of anti-psychiatry have been recycled in criticisms from disaffected users, who now constitute a new social movement (Rogers & Pilgrim, 1991). They have also resurfaced within a newer post-modern professional dissent of 'critical psychiatry' (Bracken & Thomas, 1998) and in continuing north American attacks upon the biomedical model from within a realist, rather than a post-modern, paradigm (Breggin, 1991; Ross & Pam, 1995). This suggests that a dialectical opposition provoked by the biomedical model has not produced a self-evident synthesis in the BPS model.

Third, those favouring a holistic model have recently expressed a concern that psychiatry is simply becoming neuropsychiatry, with the BPS model losing its earlier gains:

'As mental hospital gives way to acute district general hospital and community facilities, are the psychological aspects of disease being reabsorbed within the very core of medicine or is psychiatry slowly being filtered and the social domains it has for two centuries so painstakingly valued and endorsed being remorselessly discarded?' (Clare, 1999: 111).

Clare's lament points to a fourth reason to conclude that the BPS model is not a stable orthodoxy within psychiatry. History suggests that the biomedical model is a hardy perennial. Instead of the 'shell-shock problem' permanently suppressing a crude biodeterministic position, in the wake of Victorian eugenics, it merely created the conditions of accommodation. Despite the constitution of the Macmillan Committee, the 1930

Mental Treatment Act did not ensure that the influence of psychotherapy prevailed, in the mainstream of the profession, and institutional psychiatry and physical treatments continued to predominate.

A biological model favours methods of treatment which are well suited to the impersonal and, if required, coercive management of madness. Moreover, doctors may instinctively favour a biomedical model. In a sense it is odd when psychiatrists do not advocate a 'medical model'; after all they are medical practitioners. Medical socialisation emphasises somatic pathology and encourages the role of doctors as chemotherapists with a prescription pad. Drug company research, marketing and sponsorship of psychiatric training events reinforce these medical norms.

Versions of a taken-for-granted certainty about genetically-shaped, neuro-physiological processes pepper the writings of biological psychiatrists (Ross & Pam, 1995). Biological certainty is captured in Gerard's phrase 'no twisted thought without a twisted molecule' (Abood, 1960) or by 'strange people strange substances' (van Praag, 1977). These presumed biological truisms lead to junior psychiatrists learning biodeterminism 'by assumption' (Kemker & Khadivi, 1995). Biological assumptions permeate a psychiatric cultural tradition, dating back to the salad days of Victorian eugenics, which young doctors join, contribute to and reproduce.

Not only did biological psychiatry survive the challenge of 'shell-shock' in the First World War, it even survived the ignominy of its association with Nazi eugenics in the Second. For example, the twin studies of 'schizophrenia' in 1930s Germany, by Franz Kallmann and his mentor Ernst Rudin, still underpin respectable Anglo-American research in psychiatric genetics (Marshall, 1990). Rudin was tried and found guilty at a de-Nazification tribunal in Nuremberg. Kallmann emigrated and continued his work in the USA. Their British collaborator, Eliot Slater, returned to the Maudsley after the war, having worked in Munich since 1934 (Gottesman & McGuffin, 1996).

Given this pattern of long term survival of the biomedical model, in the face of sporadic and cumulative attacks from a variety of parties, it is not surprising that, episodically, it is re-asserted in very confident terms. Clare's concern noted above refers to a typical example of this in the work of Samuel Guze. Here the latter tells us that:

'...what is called psychopathology is the manifestation of disordered processes in various brain systems that mediate psychological functions.... By taking into consideration genetic codes and epigenetic development, guided and shaped by broad-ranging environmental influences, only some of which are now recognised and understood, biology clearly offers the only comprehensive scientific basis for psychiatry just as it does for the rest of medicine...' (Guze, 1989: 317/318).

After 1980, this sort of biological triumphalism was symptomatic of a 'return to medicine' in the profession. This trend is described here by Fernando (1992) who argued that his profession in Britain had recently:

...turned in on itself, going back to the traditional basics of medicine – emphasising biological and genetic aspects of health and illness, concentrating on drug therapy (as an undeniably 'medical' form of treatment) devising more and more specialisms and refusing to address serious problems (such as racism) within its professional practices. (Fernando, 1992:9).

This 'return to medicine' was evident on a larger scale in the USA, with the revisions of the American Psychiatric Association's Diagnostic and Statistical Manual. The latter shifted from an aetiological emphasis (fa-

voured by the BPS model) to one of non-committal neutrality about causality and a focus on current behavioural features. This shift might appear to be inoffensive to all-comers, as it seems to avoid any partisan stance. However, its advocates make an explicit link between DSM and the legitimacy of a 'medical model', which can now rescue the term from the pejorative connotations created by 'anti-psychiatry'. Here, for example, is the view of two leading advocates of DSM:

'DSM-III was a landmark in the development of psychiatric classification, drawing on the best available research from the preceding decades and placing psychiatry *firmly back in the medical model* of basing treatment decisions on diagnosis....' (Blacker & Tsuang, 1999: 70, emphasis added).

A fifth and final indication of a losing battle for the BPS model is its relative lack of visibility within those psychiatric texts after 1980, which set out explicitly to discuss models of causality in psychiatry. Take two examples, the first an introductory primer about psychiatry and the second a more scholarly philosophical analysis. Tyrer & Sternberg (1987) in their 'Models for Mental Disorder' give a clear outline of just four models, which they call 'disease', 'psychodynamic', 'behavioural' and 'social'. Of these, the last is the nearest to a BPS model (citing work from the Institute of Psychiatry).

What is noteworthy about the final chapter of the book is that it offers a critique of the dangers of partiality entailed in being seduced by one or other of the four models summarised. By the end of the book, the authors actually construct a persuasive argument for a sort of BPS model. However, at no point do they use this term, or a variant, nor do they allude to the long respectable history of such an approach in academic psychiatry. Their discussion generates an appeal for a form of integrationism in response to the four models they summarised. However, the option of 'picking from the shelf' the BPS model, and giving it a chapter of its own, was not taken.

The same is true of 'Mind , Meaning and Mental Disorder' by Bolton & Hill (1996). Despite a long analysis of determinism and agency and the nature of explanations in psychiatric theory and practice, they make no mention of the BPS model, or of the tradition of intellectual labour, which created and developed it. Bolton & Hill discuss the work of Guze (critically) but not advocates of the BPS model. The point here is not about the merits of these two books but the relative silence, which descended after 1980, on discussions about explanatory models in psychiatry, in relation to the BPS approach.

Whilst the recent texts focusing on models of explanation within psychiatry fail to formally recognise the continuing significance of the BPS model, the latter still has a presence in research reports. This may reflect a residual inter-disciplinary influence, even if, in overall terms, it has declined in epistemological significance. For example, an interactionist position, in which biological, psychological and social factors are explored, can be found in relation to reports of diverse topics. These include: personality disorder (e.g. Paris, 1996); neuro-psychoanalysis (e.g. Kaplan-Solms & Solms, 1996); attachment theory (e.g. Cassidy & Shaver, 1999); institutional living in children (e.g. Rutter, 2001) and female depression (e.g. Kendler *et al.,* 1993; Brugha *et al.,* 2000).

Whilst these topic-based reports do not set out primarily to champion the BPS model, they do reflect its remaining impact on psychiatric research. Nonetheless, the 'return to medicine', 'the decade of the brain' and the more recent absence of the BPS model in texts about explanatory models casts a seri-

ous doubt upon its future. If the BPS model's relevance in debates about causality in psychiatry has become shady and ambiguous, the biomedical model has retained a clear salience. For example, Shorter (1998) comments, early in the pages of his history of psychiatry that:

'…if there is one central intellectual reality at the end of the twentieth century, it is that the biological approach to psychiatry – treating mental illness as a genetically influenced disorder of brain chemistry – has been a smashing success.' (Shorter 1998: vii).

It is this contrast in standing and confidence, between the biomedical model and the BPS model, which now raises a question about the viability of the latter. The bioreductionist certainty of Shorter (and of Guze noted earlier) suggests that the programmatic statement from the Journal of Mental Science in 1858, cited by Scull (1979), was indeed prescient. It seems that the biomedical self-confidence at the end of the Victoria period, noted by Doerner (ibid), had returned a century later and those in the lineage of Meyer and Engel may now be in retreat.

This paper has summarised the content and history of the biopsychosocial model in psychiatry and appraised its current status and prospects. The acclaimed intellectual resource of general systems theory and the acknowledged reputation of its early advocate, Adolf Meyer, underpin the model. It offers professional advantages for psychiatry and humanistic benefits to mental health service users. At times, it even engenders genuine inter-disciplinary cooperation. Despite these professional, scientific and ethical virtues, to date its promise may not have been fully realised. Latterly it has been kept in the shadows by a return to medicine and the reascendancy of a biomedical model.

It may be that the unresolved conflict between bioreductionsim and its opponents, manifest first in 'anti-psychiatry', then in the mental health service users' movement and, more recently, in 'critical psychiatry', may lead to a re-discovery of the biopsychosocial model and a re-affirmation of its merits. Alternatively, we may be witnessing the slow terminal decline of a late twentieth century casualty of psychiatric debates and the emergence of newer forms of political and epistemological resolution between 'psychiatry and its critics'.

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