

The problem with diagnosis

PSYCHIATRIC diagnosis is fundamental to psychology not practising what it preaches. The idea that diagnosis identifies mental disorders which may become objects of study has created theoretical and practical divisions between 'normal' and 'abnormal' which have hindered understanding of behaviour and experience in general – not just that said to be symptomatic of mental illness. Abandoning diagnosis is therefore an important step in practising what we preach – in creating a unified approach to our subject. This article outlines some of the many (additional) reasons why we should abandon diagnosis; but also some reasons why this will not be an easy task.

Diagnostic systems lack any scientific basis

All scientists aim to identify patterns, or meaningful relationships, in whatever they study. But no aspiring science has ever been successful by asserting at the outset what kinds of patterns it will observe and retaining this belief in the face of decades of unsuccessful research. Yet this is exactly what has happened in psychiatric diagnosis. It is based on the assumptions that troublesome behaviours, emotions and psychological experiences will form the same kinds of pattern, conform to the same theoretical frameworks, as bodily complaints; that these behaviours and emotions are outward symptoms of an underlying internal dysfunction which, together with signs (objective, measurable bodily antecedents) will cluster into syndromes; and that once initially observed by researchers, further instances of these patterns can be identified through diagnosis, elaborated and refined, and their causes and treatments gradually revealed through research.

As I (Boyle, 2002) and others (e.g. Scull, 1979) have shown, such ideas became acceptable during the late 19th and 20th centuries for a variety of cultural, theological, political and professional reasons. Unsurprisingly they were always empirically insecure; our body parts, after all, don't have language or emotions, form



MARY BOYLE on why we are still diagnosing, and the pitfalls.

beliefs, make relationships, create symbols, search for meaning, or plan the future. Small wonder that a theoretical framework developed for understanding bodily problems, has proved so inappropriate for the task of understanding psychological experience and behaviour. But rather than being abandoned or fundamentally altered in line with evidence, the diagnostic model has been retained and research and practice made to fit around it. Thus...

Diagnosis distorts research in at least three major ways

First, diagnostic concepts are not based on the kinds of research data needed to justify them (Boyle, 2002; Bentall, 2003; Kirk & Kutchins, 1992; Kutchins & Kirk, 1997), although much effort is expended in making it look as though they are – albeit with an occasional and oblique admission that psychiatric research has never actually observed the kinds of behavioural patterns predicted by its underlying model (e.g. APA, 2000).

Instead of being inferred from such patterns, diagnostic concepts and their definitions have in fact always been asserted by clinician or committee opinion. This, together with the fact that there is no independent way of knowing which behaviours and experiences 'belong' to a diagnostic model and which to models of 'normal' behaviour, makes diagnostic concepts very unstable, with their number and definitions changing frequently according to equally changeable and idiosyncratic rules.

Inevitably, as statistical studies of unselected clinical populations have shown, people's actual behaviour and emotions do not easily fit diagnostic categories. When the categories are nevertheless applied they

are poor predictors of outcomes, interventions or even of people's complaints ('symptoms') (Bentall, 2003; BPS, 2000); when diagnoses are used in research seeking the causes of the disorders they purport to represent, the results are predictably inconsistent and contested. Rather than facing the theoretical implications of all of this, diagnostic systems often compound the problem by, for example, making people look even more pathological through the increasingly popular ideas of 'dual diagnosis' or 'co-morbidity' as, for example, in schizophrenia and substance use disorder, mixed anxiety and depression or bipolar disorder and attention deficit hyperactivity disorder. Indeed the sheer extent of heterogeneity within categories and overlap across them is so great, that 'triple' or 'quadruple diagnosis' cannot be far away.

A second way in which diagnosis distorts research is by emphasising form at the expense of content; at the expense, for example, of what hallucinated voices say, or what 'deluded' people believe, what people do to avoid feeling panicky in public places or what they feel depressed about. The reasons for this bias are complex but the result has been the neglect of large areas of human experience and an impoverished understanding of our problems.

Diagnostic systems distort research, finally, by directing research efforts to the 'ill' or 'deficient' individual in whose brain or psyche the fundamental cause of their disorder is assumed to be; it is this kind of research which is most widely reported in textbooks and the media. Yet there is strong evidence that emotional distress and behavioural problems, even the most bizarre, are understandable responses to or

ways of actively trying to manage adverse circumstances and relationships (Albee, 1986; Johnstone, 2000; Read, 2005; Smail, 2001; Stoppard, 1999; Wilkinson, 2005). The theoretical and practical implications of this evidence are often minimised by, for example, presenting adverse environments and relationships largely as consequences of 'having a mental disorder' rather than as antecedents of a range of meaningful and purposive – if problematic – responses to adversity. Anyone who queries this presentation is criticised as 'family blaming'. Similarly, by inserting an unspecified innate vulnerability between the person and their environment, the claimed vulnerability and not the environment becomes the focus of concern. Some textbooks simply fail to mention the research at all.

Diagnostic models seriously restrict prevention

It is not accidental that there is no psychiatric equivalent of a high-profile public health or environmental medicine for 'mental disorders' – the resulting focus on the social causes of behavioural and

emotional distress would create tensions for a diagnostic model which still lacks evidence in support of its most basic assumption of conceptual equivalence between bodily, and behavioural and emotional problems. Primary prevention also largely depends on understanding the antecedents of whatever is to be prevented. But if the claimed genetic, hormonal, biochemical or even psychological bases of diagnosed mental disorders remain elusive – as they always will, given such problematic categories – on what, within this model, can prevention be based (Boyle, 2004)?

Diagnosis is ethically problematic

The making of diagnoses and imposing them on those who resist is justified more or less explicitly with reference to science and medicine. If this justification is false, then what rationale replaces it? Of course people may be helped or comforted by a diagnosis; they may (rightly) believe that a diagnosis means that some aspect of their problem has been encountered before or (wrongly) believe it explains their distress or predicts its outcome or that it excludes something worse (I'm not stupid, I've got dyslexia; my child isn't bad, he's got attention deficit disorder; I'm not weak-willed, I've got substance use disorder). Fortunately, there are far more constructive ways of fulfilling these functions without using diagnosis, for example through formulation and by discussion about what receiving or not receiving a diagnosis would mean to a client (e.g. Radcliffe *et al.*, 2004).

Why are we still diagnosing?

The persistence and popularity of psychiatric diagnosis in the face of these problems need explanation. I will outline some of the many possibilities (see Boyle, 2002, for more detailed discussion).

It is difficult to overstate the amount of effort and money expended in making the diagnostic system look

DISCUSS AND DEBATE

Should psychology officially 'abandon' diagnosis?

How might psychology effectively communicate to the public, professionals and service users about alternatives to diagnosis?

What aspects of our culture might make a diagnostic approach particularly credible or attractive to us?

Have your say on these or other issues this article raises. E-mail 'Letters' on psychologist@bps.org.uk or contribute (members only) via www.psychforum.org.uk.

credible through, for example, the strategic misuse of medical and scientific language, concepts and analogies; a focus on reliability at the expense of validity; the false presentation of diagnoses as atheoretical ('just descriptions') thus fostering a 'what's all the fuss about?' stance; and the extensive misrepresentation and omission in secondary sources of research data which do not fit the model. There is, too, an important and growing symbiosis between the devisers of diagnostic concepts and pharmaceutical companies in that diagnoses seem more plausible if there appears to be a specific drug to treat 'a disorder', while drug marketing is strengthened if there appears to be a specific disorder the drug can target (and see Moncrieff, in this special issue).

Diagnostic credibility is also fostered by popular habits of thought such as reification and question begging, which were dismayingly in evidence in some recent responses in *The Psychologist* (November 2005) to criticisms of the concept of dyslexia. Valid diagnostic and classification systems are also dependent on the observation of meaningful correlations, yet much cognitive research shows us to be overconfident about this skill, necessitating detailed rules for scientists to ensure that their posited patterns are not illusory. That these rules are routinely broken by devisers of psychiatric diagnostic systems may go unnoticed because of overconfidence in our judgement of patterns.

Diagnostic systems can make it look as though critics of psychiatric diagnosis deny any role for biology, by encouraging a confusion of research on the 'biological bases of mental disorders' with research on brain-behaviour or mind-body relationships. In fact, diagnosis obstructs the latter through positing invalid categories as independent variables and discouraging research on reciprocal

relationships amongst brain, behaviour and environment.

Diagnosis also serves important administrative, professional, psychological and social functions unlikely to be served by alternatives. These include providing an

apparently simple system for record keeping, financial management or access to services; maintaining psychiatry as a branch of medicine; allowing 'normal' people to locate irrationality in others, in a society which reveres rationality; seeming

to solve problems of blame and responsibility; and distracting attention from the harmful psychological consequences of social and political policies and structures.

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Looking to the future

Clinical psychology has already begun to abandon diagnosis in theory and practice. The term is not even mentioned in the DCP's statement of its core purpose, or in the Subject Benchmarks for clinical psychology programmes, except to say that what we do is 'different'. But this has, arguably, had a limited impact on how our roles are understood by the public, other professionals and even other psychologists. If this is to change, then we may have to speak more assertively about the problems of and alternatives to psychiatric diagnosis, but also take more account of the very powerful factors which have made it so popular and plausible.

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Researching psychotic complaints

In recent decades, research on the psychological processes involved in psychotic complaints ('symptoms' in the language of psychiatry) has progressed from a minority interest practiced by a small number of dissident psychologists to a widely accepted avenue of investigation. To illustrate the progress that has been achieved by this approach, I will briefly review the research on hallucinations and delusions, the two complaints that have been most often studied.

The psychology of auditory-verbal hallucinations

Although often reported by psychiatric patients, hallucinations are also experienced by a substantial minority of the ordinary population (Tien, 1991). In psychotic patients they are most often experienced in the auditory-verbal modality, although some also report visual, olfactory and tactile hallucinations (Slade & Bentall, 1988). Clinicians often gain the impression that patients' voices are negative in content, but positive, even supportive voices are common (Miller *et al.*, 1993).

The normal phenomenon of 'inner speech' provides a clue to the mechanisms involved in auditory-verbal hallucinations ('voices'). The ability to regulate one's behaviour by means of speech directed at one's self develops in early childhood, when children first talk out aloud to themselves (Vygotsky, 1962). In adulthood, inner speech is accompanied by 'subvocalisation' – covert activations of the speech muscles that can be detected by electromyography. It has been known for many years that subvocalisation is evident when patients experience voices (e.g. Gould, 1948; McGuigan, 1966) and this observation has suggested that auditory-verbal hallucinations occur when inner speech is misattributed to an external source.

Some researchers have attempted to directly measure the capacity to distinguish between self-generated thoughts and externally presented stimuli (a skill known as 'source monitoring'). In an early study, I used a signal detection paradigm to show that people who hear voices, when asked to detect an externally presented voice against



RICHARD P. BENTALL shows that if you get to the bottom of the symptoms, there is no 'disorder' left to explain.

a background of white noise, have an abnormal response bias, leading them to say a voice is present on trials when it is not (Bentall & Slade, 1985). In a more recent series of studies, Johns *et al.* (2001) found that hallucinating patients are especially likely to mistake their own voice, after it had been electronically distorted, for speech by someone else.

The causes of the voice hearer's source monitoring errors are only beginning to be explored. One idea is that hallucinating patients have dysfunctional metacognitive

'Patients with delusions request less information before reaching a decision'

beliefs (beliefs about their own mental processes) that lead them to make self-defeating efforts to control their thoughts, making the thoughts seem unintended and therefore alien. Consistent with this idea, hallucinations, but not paranoid delusions, are associated with the same kind of metacognitive beliefs reported by obsessional patients (Morrison & Wells, 2003).

A second proposal is that source monitoring errors reflect a general failure to monitor one's own intentional states and, in a famous test of this account, (Blakemore *et al.*, 2000) showed that psychotic patients who experience voices are more able to tickle themselves than non-psychotic controls. More direct evidence in favour of this account has been obtained in a series of electrophysiological studies by Ford and Mathalon (2004); they observed that hallucinating patients do not demonstrate the same dampening in the auditory perception areas of the temporal lobes that is seen during talking and inner speech (a process they identify as indicating a corollary discharge from the

frontal cortex which prevents one's own speech from being attributed externally).

The psychology of delusions

No clear demarcation is obvious between beliefs that are considered delusional and other minority beliefs; indeed, it makes more sense to see delusions as related to normal beliefs and attitudes along a series of dimensions, such as incorrigibility, preoccupation and distress (Kendler *et al.*, 1983). In a comparison between deluded patients and adherents of new age religions, Peters *et al.* (1999) found that the main difference was the greater distress caused by the beliefs of the psychiatric patients.

Deluded patients appear to perform normally on conventional measures of reasoning (Bentall & Young, 1996; Corcoran *et al.*, 2006). The psychological abnormality that has been most robustly linked to delusional thinking is a tendency to 'jump to conclusions' (sometimes described as the 'JTC bias') when reasoning about probabilities.

This bias was first demonstrated in a series of experiments by Garety and her colleagues (e.g. Garety *et al.*, 1991) who presented deluded patients and controls with two jars containing red and white beads, one jar containing mostly red beads and the other containing mostly white beads. When the jars had been taken away, the participants were presented with a sequence of beads and were asked, once they had obtained sufficient information, to decide which jar the beads had come from. The basic finding, replicated many times, is that patients with delusions request less information before reaching a decision.

Deficits in theory-of-mind (ToM) skills have been specifically implicated in persecutory delusions, following an influential series of studies by Corcoran and her colleagues (e.g. Corcoran *et al.*, 1997; Corcoran *et al.*, 1995) which showed that paranoid patients perform poorly on

ToM tasks. Also apparently linked to persecutory delusions is a tendency to assume external, other-blaming explanations for negative events (Kaney & Bentall, 1989; Kinderman & Bentall, 1997).

At first sight, these findings make intuitive sense. After all, a tendency to reach conclusions without considering all the evidence, to misunderstand the intentions of other people, and to assume that unpleasant experiences are caused by the deliberate actions of others looks as if it should lead to a paranoid worldview. However, although the JTC bias is well replicated and specific to delusions, its interpretation is made more difficult by the fact that deluded people more rapidly change their minds than controls when presented with a sequence of beads that is inconsistent with their initial hypothesis (Garety *et al.*, 1991), an observation that seems paradoxical in the light of the widespread assumption that delusional beliefs are resistant to counter-argument.

Traditional approaches have failed to benefit some of the most vulnerable

As for ToM deficits, they are found in psychotic patients with a wide range of complaints, and it is far from clear whether they are specific to patients with paranoid beliefs (Bentall *et al.*, 2001). The attributional bias observed in paranoid patients, although reported in a number of studies, has not been replicated in others (e.g. Kristev *et al.*, 1999) or have been only

partially replicated (Martin & Penn, 2002).

To some extent, these ambiguities in the research findings illustrate the success of the complaint-orientated approach. An initial generation of studies that has examined plausible cognitive mechanisms in simple between-group designs is now being followed by more complex studies in which interactions between cognitive variables and changes in cognitive functioning over time are being examined. For example, I have found that paranoid patients seem to jump to conclusions when seeking evidence before making their attributional judgements (Merrin *et al.*, in press), and that the attributional style of paranoid patients is highly labile and readily influenced by circumstances (Bentall & Kaney, 2005).

With my colleagues I have also examined an important distinction between two types of paranoid delusions made by Trower & Chadwick (1995): poor-me delusions (in which persecution is held to

be undeserved) and bad-me delusions (in which it is held to be deserved), finding that patients often switch between these two types of beliefs, and that they only make abnormal attributions when in the poor-me phase (Melo *et al.*, 2006).

A complete account of psychosis?

Given the progress achieved thus far, an obvious question is whether a complete account of psychosis can be constructed on the basis of these kinds of findings. Elsewhere I have argued that, once hallucinations, delusions, and the other manifestations of psychosis have been adequately explained, there will be no 'schizophrenia' left behind that also requires an explanation (Bentall, 2003). Two American psychiatrists, Mojtabai and Rieder (1998), have rejected this possibility, arguing that the identification of complaints cannot be made with sufficient reliability for this approach to succeed, that

genetic effects are stronger for diagnoses than for individual symptoms, and that the complaint-orientated approach does not lead to insights about aetiology.

In fact, numerous instruments now exist for identifying complaints reliably (e.g. Andreasen, 1979; Haddock *et al.*, 1999). Moreover, the failure to find genes of major effect for any of the psychotic diagnoses (McGuffin, 2004; Moldin, 1997) suggests that it may well be fruitful to explore links between complaints and genes (see Schulze *et al.*, 2005).

Finally, recent research showing a specific association between trauma and hallucinations in both schizophrenia (Read *et al.*, 2003) and bipolar disorder patients (Hammersley *et al.*, 2003) shows that studies of complaints can yield insights about aetiology. Indeed, studies of complaints seem to be advancing our understanding of severe mental illness much more rapidly than more traditional approaches which, despite more than a

century of effort and the expenditure of vast resources, have failed to benefit some of the most vulnerable people in our society (Whitaker, 2002).

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DISCUSS AND DEBATE

Can a complaints-based approach illuminate non-psychotic disorders such as anxiety or depression?

What are the disadvantages and limitations of research based on complaints?

Which complaints have yet to receive attention from psychological researchers?

Have your say on these or other issues this article raises. E-mail 'Letters' on psychologist@bps.org.uk or contribute to our forum via www.thepsychologist.org.uk.

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