

Science and the Psychiatric Publishing Industry

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Objective: An empirical examination of the scientific status of psychiatry. **Method and Results:** Analysis of the publications policy of the major English-language psychiatric journals shows that no journal meets the minimum criteria for a scientific publishing policy. **Conclusion:** Psychiatry lacks the fundamental elements of any field claiming to be a science. Furthermore, its present policies are likely to inhibit scientific development of models of mental disorder rather than facilitate them. The psychiatric publishing industry is in urgent need of radical reform.

Keywords: psychiatric publishing; sociology of science; psychiatry as protoscience; self-deception in psychiatry

Psychiatry is part of medicine, and medicine is an applied science, therefore psychiatry is a scientific field in its own right. Very few psychiatrists would question this conclusion but, from time to time, it is appropriate to question our basic assumptions to see if they still apply. I have previously argued (McLaren, 2007) that all models used in psychiatry are invalid, meaning our field is no more than a protoscience. In particular, I have outlined a case against the attempt to explain mental disorder using biological reductionism (McLaren, 2008). Briefly, reductionism is the wrong conceptual approach to the question of human mental life. That is, the attempt to reduce mental life to matters of biology misunderstands the nature of mind, or is ontologically incorrect. My view is that since we do not have a valid model of normal mental life, or mind, we are not in a position to begin to explain disordered mental life. If we had an adequate theory of mind, then a model of mental disorder would flow from it and, hence, the correct technology for investigating and treating it. But, uniquely in medicine, we have nothing like this.

This appears contradictory: how can there be a field of science without an agreed model of what the field is about? At first glance, psychiatry has the trappings of a field of science. It has highly trained researchers working in dedicated centers, supported by government and industry grants that are allocated according to ethical processes; it has training programs, examinations, conferences, and a publishing industry. Grant procedures, courses, and so forth, evolve but the publication of scientific research is so basic to our concepts that we rarely consider it, and it has hardly changed in a hundred years. Its original purpose may have been educational but, these days, its major function is essentially epistemological, a matter of what we can rightly claim to know. Even though its applications may be covered by patents, and so forth, all basic scientific research takes place in the public domain. Theories must be free of bias, and the only way of ensuring this is to allow others to follow the

arguments and to repeat the research. If there is a fault, somebody will find it. Publication serves other ends, of course, but its epistemological function is to eliminate error. Errors are discovered and corrected simply by placing the whole of the program, theories and research, before the critical audience of one's peers and the general public. Accordingly, every part of a field of science is open to challenge. Nothing is sacrosanct, not theories, models or methods, nor personalities, reputations, or ambitions. The idea that a field of science can be immune to criticism is self-contradictory, just because criticism is the only way we know of eliminating error. Indeed, criticism is the very engine of scientific progress.

As with all fields of science, psychiatry must meet certain requirements before it can be taken seriously. These include an agreed model of mental disorder (a single playing field), objectivity (a level playing field), accessibility (an open playing field), and accountability (a public playing field). In this article, I wish to examine the question of psychiatry's formal status as a scientific endeavor from two points of view. Does it first meet the minimum criterion of having an agreed model? Second, do we assign the proper weight to the value of criticism in ensuring progress in our field? If we do not have both these features, namely an accepted model of mental disorder subjected to constant, institutionalized criticism, then we fail to reach the minimal criteria of any field claiming to be scientific in nature. These criteria will be tested by examining aspects of the publication policies of the main English-speaking psychiatric journals. It will immediately be apparent that, not only do we lack an agreed scientific model of mental disorder, but our approach to exploring the nature of mental disorder breaches some of the most elementary principles of scientific conduct.

METHOD AND RESULTS

Publication policies of each journal are displayed in their respective instructions for authors, which are now found on the journal Web sites. One major journal restricts access to this page to fee-paying members, but its instructions are available in the hard copy. A PubMed search of the word "psychiatry" yields 326 journals.

Models: Of the major, English-language journals of general psychiatry still in print, not one nominates a model of mental disorder in its instructions to authors. The *Journal of BioPsychoSocial Medicine* comes closest to naming a model. This journal, from Japan, has the most prodigiously long and detailed instructions for authors of any journal but fails to nominate the model of "biopsychosocial medicine" on which it is based. It describes the topics it will publish, which encompass "all aspects of the interrelationships between the biological, psychological, social, and behavioral factors of health and illness. . . . (It) emphasizes a bio-psycho-social approach to illness and health . . . all of which are associated with mind-body interactions." No model of mind, of mental disorder, or of mind-body interaction is specified.

The remaining journals give little or no indication of the type of psychiatry they will accept. Most give a broad description of their areas of interest but do not attempt to define them. For example, *Archives of General Psychiatry*

strives to publish original, state-of-the-art studies and commentaries of general interest to clinicians, scholars, and research scientists in psychiatry, mental health, behavioral science, and allied fields. *Archives* seeks to inform and to educate its readers as well as to stimulate debate and further exploration into the nature, causes, treatment, and public health importance of mental illness.

Similarly, the *International Journal of Social Psychiatry* “publishes original work in the fields of social and community psychiatry and in related topics. . . . Social psychiatry as a branch of psychiatry deals with the social, environmental and cultural factors in the aetiology and outcomes of psychiatric disorders as affecting individuals as well as communities.” The mode of interaction of these factors is not stated. Others are briefer: *British Journal of Psychiatry* “publishes original work in all fields of psychiatry.” There is no mention of a model. *Psychosomatic Medicine* gives no indication of the type of work it will accept, or of a model of psychic and somatic interaction. The *American Journal of Psychiatry* publishes articles that are “reports of original work that embodies scientific excellence in psychiatric medicine and advances in clinical research.” The particular scientific model the research is advancing is not specified. For *Australian and New Zealand Journal of Psychiatry*, “The acceptance criteria for all papers are the quality and originality of the research and its significance for our readership.” There is no mention of a model of mental disorder and, on this basis, nothing to restrict it to psychiatry.

This could be continued but would be unproductive: there is nothing to indicate that the many journals of psychiatry have the slightest agreement or, indeed, any idea as to what constitutes a valid model of mental disorder. On this basis, it would be reasonable to conclude that, in fact, psychiatry does not have a theory or model of mind, a model of mind-body interaction or a model of mental disorder. This alone would disqualify it from claiming to be or have a basis in science.

Objectivity: The question of objectivity is best answered by looking at the subject lists published by the different journals. It is immediately clear that the field is tilted heavily in favor of reductive biologism supplemented by statistical analysis. These two fields, of course, dovetail neatly in that a detailed statistical approach is used to delineate the various syndromes or surface markers for which biology will eventually find the specific underlying biochemical defects. A complete biological model would then be in a position to devise precise pharmacological responses but there is no evidence of such a model. Biological reductionism has been assumed to be true, but no biological psychiatrist has ever offered an explanation of what would be involved in proving the statement: Mental disorder just is brain disorder. There is practically no criticism of the dominant statistical or biological approach in the mainstream literature, and no effort to present alternatives. A recent editorial in the *Journal of Psychiatry & Neuroscience* was entitled: “The neurobiology of human social behavior: an important but neglected topic” (Young, 2008). Unfortunately, the journal’s index indicates it is likely to remain so. Either criticism is not being written, or it is not being published. Either way, it is not being encouraged, meaning psychiatry lacks the *sine qua non* of progress in science, criticism of the dominant model.

Accessibility: The psychiatric literature is not open to “all players.” Objective of the Canadian Psychiatric Association is “to uphold and develop the biopsychosocial approach to the practice of psychiatry . . .” There is no mention of where this approach has been substantiated, or its relationship with the long-discredited “biopsychosocial model” (See McLaren, 2007, chapters 6, 8). The *Canadian Journal of Psychiatry* “contains peer-reviewed scientific articles related to all aspects of Canadian and international psychiatry,” which, in the editor’s view, represent a substantial contribution to the “scholarly knowledge base.” At his absolute discretion, the editor invites eminent psychiatrists to contribute editorials, reviews, and debate pieces on topics chosen by the editorial board. Letters to the editor are restricted to comments on published material. In brief, the editor determines what Canadian psychiatrists will read, and controls criticism of his choice. The *American Journal of Psychiatry* will only

consider letters critical of published papers if they are received within 6 weeks of publication and they have space. Essentially, this restricts critical comment to subscribers.

Accountability: Very few journals declare a policy relating to disputed assessments of submissions, although the *Australian and New Zealand Journal of Psychiatry* is perfectly explicit: "The Editorial Board reserves the right to refuse any material for publication . . . Final acceptance or rejection rests with the Editorial Board." In practice, this means the Editorial Board of ANZJP applies its undefined criteria of "quality, originality, and significance" *in camera*. Their deliberations may be rational but, equally, they may not be. Nobody who is not on the Board will ever know, and the Board is chosen, not elected. Other journals are more reticent, although it would be an obtuse author who felt that their silence on the topic of accountability meant their decisions were open to question.

DISCUSSION

Currently, no psychiatric journal in the world meets minimum criteria for a journal of scientific record. Of 28 prestigious journals reviewed, not one defined the model of mental disorder that guides its publications policy. My view is that this was inevitable, just because they do not have a model. In the main, editors merely described their field without defining it: "All submissions to *The Journal of Clinical Psychiatry* should be relevant and interesting to practicing clinical psychiatrists. We strive to publish academically sophisticated, methodologically sound manuscripts geared more toward the practitioner than the researcher." This is strong supportive evidence to support the claim that psychiatry is merely a protoscience, if that.

Since no editor in the world today can give a working model of mental disorder, it would be reasonable to assume an open-minded approach to the question of what actually causes mental illness, but this is not the case. Publication policies are heavily biased toward the unproven and essentially unstated biological model. As an example of the tilt in favor of biological solutions to psychological questions, consider the following case study. A paper criticizing the biological model was submitted to ANZJP in July 2006. Even though it proposed an alternative, it was rejected with a form response but was later published elsewhere (McLaren, 2006). In December 2007, the journal published a very strong partisan paper on biological explanations of mental disorder, written by a renowned neurophysiologist with no medical training (Bennett, 2007). At the same time, a further paper criticizing the biological approach was rejected with no explanation. It has since been accepted elsewhere (McLaren, 2008). A letter criticizing the biological paper was rejected with no explanation beyond "lack of space." In August 2008, the journal published another paper from the same neurophysiologist, again advocating a rigid biological solution to mental problems (Bennett, 2008). Once again, a letter pointing out serious epistemological faults in the biological paper was rejected.

Thus, the publication score is: two very strongly probiological papers published by a neurophysiologist with close professional connections to several members of the editorial board; two criticisms of those papers rejected; and two papers advocating a mentalist solution rejected but later published elsewhere. In my view, that amounts to a *prima facie* case of a partisan editorial stance, but it is permitted by the journal's editorial policy as it states only that papers must be of significance to the readers. If there were an accepted model of biological reductionism to explain psychiatric disorders, this might be plausible

but there is not. Since neither paper addresses a declared model of mental disorder, their significance to psychiatrists is moot. In fact, very few psychiatrists would be able to read either of these densely written biological papers, let alone apprehend the theoretical errors that slipped past the reviewers and the editorial board.

When a journal proclaims that it publishes “original work in all fields of psychiatry,” one might assume that the editors would take care to present a balanced viewpoint, but this would be unwise. However, like all journals, *The British Journal of Psychiatry* has a particular style and authors soon learn to place their papers in order to maximize their chances of success. Broadly worded policies give much discretion to the editors to pick and choose according to their unstated interests: “*Acta Psychiatrica Scandinavica* publishes high-quality, scientific articles in English, representing clinical and experimental work in psychiatry. The journal acts as an international forum for the dissemination of information advancing the science and practice of psychiatry.” Since this particular journal does not offer a preferred model of mental disorder, it cannot claim to be following a scientific publishing policy, nor can it point to a “science of psychiatry.”

Editorial boards assume full and untrammelled authority to publish material they like and reject anything they don’t like for no reason other than that they deem it high-quality, original, significant, relevant, interesting, academically sophisticated, methodologically sound, or any of the other terms that disguise the lack of a formal, declared basis for their decisions. In practice, anything can be rejected for any reason and no explanations will be forthcoming, even though what is scientifically important very often seems quite insignificant at first (e.g., radium fogging a photographic plate in a drawer, Kaposi’s sarcoma in young gay men, the failure of the Michelson-Morley experiment, fossilized seashells on mountain tops, changes in finches’ beaks from one island to the next, contamination of an agar plate with *Penicillium*, a growth of *Helicobacter* in specimens of primary peptic ulceration but not from secondary, etc.). This anomaly arises just because there is no mention anywhere in any instructions for authors as to what constitutes a correct model of mental disorder against which the significance of their original, quality research can be assessed. There is no yardstick, no set of scales, no acid test, just whether the editorial board thinks their readership should read it or not. Journals do not publish lists of papers rejected, and psychiatry has nothing like the *Journal of Negative Results in Biomedicine*. I submit this is not science but is indistinguishable in practice from mere ideology or prejudice.

Instead, psychiatric publishing reflects only a tacit agreement that the mainstream knows what the proper model for psychiatry is and need not bother with trivial objections, where all objections can be deemed trivial. This shifts psychiatry from the scientific camp to being merely a manifestation of a sociological phenomenon, group-think, for example, the means by which a self-selected, inward-looking or closed group of intelligent but like-minded men can be catastrophically wrong just because they see no need for self-criticism and reject outside criticism. The current financial disaster is a choice example of group-think, as were the nuclear arms race, behaviorism and psychoanalysis, to name but a few. Similarly, the heliocentric solar system, plate tectonics, asteroid impact, and evolution were all once considered completely absurd by the mainstream, and each of these advances came from a total outsider. This is consistent with Thomas Kuhn’s sociological analysis of science (1970).

It is critically important for all journals to declare their theoretical stance so that readers can know exactly what it is they are being handed in the name of science. If editors do not

nominate the exact model of mental disorder they regard as correct and give their reasons for choosing it, then they leave themselves open to allegations of a prejudiced publishing policy, such as favoritism. Compounding the error of omission, by having no declared model of mental disorder as the primary editorial guideline, editorial boards would have no conceivable defense to such allegations. If, prior to the event, they do not name a reliable process by which papers are selected, then they cannot nominate the process post hoc and claim they have been following it all along. This is why civilized countries do not conduct trials *in camera*, and why people cannot be convicted by retrospective legislation. The rules have to be set out in advance for all to see. As it stands, the different editorial selection criteria listed above license not just rational theorizing, but also self-deception, whimsy, prejudice, or chicanery. What they do not establish is a rational, transparent process by which authors can judge whether they have been dealt with fairly, and psychiatrists can know that what they are reading is scientifically valid.

Editorial boards do not have a model of mental disorder to use to assess significance, and so forth. Instead, they rely on an inchoate notion of psychiatry as something biological that will be revealed by rapid advances in neuroscience after the way is paved by minute statistical delineation of syndromes according to the American Psychiatric Association's DSM. I submit that this is not science at all and that the editorial process cannot separate science from pseudoscience, and that it licenses prejudice just because the declared editorial policy is indistinguishable from applied ideology. The policy of publishing "quality, original papers of significance to the readership" would fit comfortably with any extremist group in the world. But it is not, and never can be, science because science is progressive, self-correcting, or a self-improving process effected by criticizing the standard view. On a more ominous note, the various notions of "significance" or "relevance" lend themselves to distortion of the scientific ethos. The test of "significance versus insignificance" is no more rational than, say, "superiority versus inferiority" as it was used by the eugenicists to mask racial prejudice. It is a pure value judgment masquerading as an impartial, scientific decision, and all the more sinister because it determines how we psychiatrists deal with other people's lives within a system of quasijudicial authority. It matters whether we tell people they have a "chemical imbalance of the brain," just because the assertion alone renders them incapable of responding as an equal.

The problem of psychiatric publishing is a sociological phenomenon that, I suggest, arose through an historical error that has simply never been addressed. The present format for journals, in which a largely self-appointed editorial board reviews submissions *in camera*, arose in the late nineteenth century. In those days, journals served more to educate than to disseminate the latest research. Papers were submitted for review by a panel of experts who decided what would help their few hundred readers. These days, the people who decide what the readers will see are very often those in the profession with the strongest reason for maintaining the status quo. In psychiatry, papers are screened by the very people who stand to lose most if the dominant approach to mental disorder were suddenly overturned. Again, this is entirely consistent with Kuhn's approach (1970).

Finally, journals often advertise their citation impact factors as though the figures conferred some sort of validity upon their activities, but this is not the case. The impact factor simply gives the average citation rate for papers in each journal for the 2-year period after publication. It is not a measure of validity, simply one of internal concordance, and one that is easily manipulated. Quoting liberally and favorably from papers the journal has already published increases the chances that one's paper will match the editor's unstated

concept of what amounts to good psychiatry. Thus, there is a self-reinforcing process whereby successful authors quote each other and, of course, their own work. By selectively rejecting material that does not agree with their unstated apprehension of the model of psychiatry, and by their (invited) editorials, editors covertly encourage authors to focus on topics and submit papers they know the editors are likely to view favorably, which essentially means citing papers the editors have already approved. This distorts the scientific process, as Ioannidis and his colleagues (Ioannidis, 2005; Young, Ioannidis, & Al-Ubaydli, 2008) have argued

Science is subject to great uncertainty: we cannot be confident now which efforts will ultimately yield worthwhile achievements. However, the current system abdicates to a small number of intermediates an authoritative prescience to anticipate a highly unpredictable future. In considering society's expectations and our own goals as scientists, we believe that there is a moral imperative to reconsider how scientific data are judged and disseminated.

Psychiatry needs to address this question as a matter of urgency. The first step is to declare the model of mental disorder, then devise means of ensuring objectivity, accessibility, and accountability. Given the fact of electronic publishing, these deficiencies could be rectified in a matter of months, if not weeks. The technology is available; all that is missing is the political will among editors to sign their power away.

CONCLUSION

I submit that, in practice, the editorial policies of all available psychiatric journals retard the development of psychiatry as a scientific discipline just because those policies actively inhibit criticism. Science is about progress, where progress means an inherently self-correcting process effected by criticism of the status quo. Criticism of the standard ideas is the engine of scientific progress: no criticism means no progress, which is how we differ from Galileo's examiners. Because editors refuse to be held to a declared standard against which their decisions can be independently judged, criticism of their actions is rendered all but impossible. By refusing to accept criticism, by neutering the very process by which inherent bias is detected and corrected, our journals push themselves outside the boundaries of science. However, after looking through hundreds of papers chosen because they are "substantial contributions to the psychiatric knowledge base," perhaps the greatest crime of the psychiatric publishing industry is that it has made psychiatry boring.

For the purpose of initiating a long overdue debate, I repeat my claim: institutional psychiatry and its publishing industry are devoid of a formal, agreed model of mental disorder. This alone negates its claim to be a scientific endeavor, but the error is compounded by the publishing industry's refusal to countenance criticism of its secret decisions. By a process of passive or active neglect, orthodox psychiatry misleads psychiatrists, trainees, other medical practitioners and professionals, taxpayers and other funders, the general public, and above all, the mentally ill, into believing that it has the answer to mental disorder almost within reach. The psychiatric literature is a major means by which this deception is perpetuated. This, in my view, exposes all psychiatrists to allegations of scientific fraud and denies them any conceivable defense.

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