

## Why promoting biological ideology increases prejudice against people labelled “schizophrenic”

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### Abstract

Although the public understands that many factors influence who ends up crazy, terrified or miserable, studies consistently find that they place much more emphasis on adverse life events than on chemical imbalances or genetics. Biological psychiatry, enthusiastically supported by the pharmaceutical industry, insists on trying to educate the public that they are wrong. This “mental illness is an illness like any other” approach to destigmatisation ignores the large body of research evidence that biogenetic explanations actually fuel fear and prejudice. If future destigmatisation programs are to be evidence-based and therefore effective, they will need to avoid illness-type explanations and labels and focus instead on increasing contact with the people against whom the prejudice is targeted and on highlighting the social causes of their difficulties. This might create funding challenges for programs dependent on drug company money.

### The “Mental illness is an illness like any other” approach

For decades most attempts to reduce prejudice against people with mental health problems have been based on the premise that the solution lies in making the public think more like biological psychiatrists. This well-intentioned “mental illness is an illness like any other” approach to reducing fear and prejudice is based on the assumption that if you are ill your behaviour is beyond your control and you therefore cannot be held responsible or be blamed (Angermeyer & Matschinger, 2005a). Thus, while it is sometimes argued in academia that terms such as “illness” and “disease” do not necessarily imply exclusively biological causes, the motivation for “mental illness is an illness like any other” was clearly based on precisely that implication. That the public understands these terms from a biological framework is supported by dictionary definitions: “illness – disease or indisposition”, “disease – an unhealthy condition in a person, animal or plant that is caused by bacteria or infection” (Collins, 1995).

The extent to which campaigns have adopted this approach can be gauged by counting uses of terms such as “illness”, “disorder” “brain disease”, and so on in the campaigns’ published materials. For example, despite a commendable involvement of,

and focus on, mental health service users, New Zealand’s “Like Minds” campaign (Akroyd & Wyllie, 2002) announces, repeatedly, that one in five New Zealanders “have a mental illness”. Australia’s “beyondblue” campaign (Jorm, Christensen, & Griffiths, 2005a) describes its website’s information page thus: “Fact sheet on depression – includes the signs and symptoms of the illness”. The first words of the fact sheet are “Depression is more than a low mood it’s a serious illness” [www.beyondblue.org.au 13 Feb 2006].

This promulgation of an illness ideology has been reinforced by the term “mental health literacy” to describe the degree to which the public agrees with biological psychiatry and to bemoan the public’s supposed ignorance. The earliest reference to mental health literacy is a paper in the *Australian and New Zealand Journal of Psychiatry* (Henderson, 1995). In 2000 a prominent member of the same Australian research group published a paper entitled “Mental health literacy: Public knowledge and beliefs about mental disorders”, which stated: “What is most surprising is that psychological interventions are seen by the public as highly effective for psychotic disorders” (Jorm, 2000, p. 397). “If the public’s mental health literacy is not improved, this may hinder public acceptance of evidence-based mental health care” (p. 396).

This paper will argue that the criterion of “evidence-based” is rarely applied to the field of destigmatisation (Read, Haslam, Sayce, & Davies, 2006). A recent paper entitled “Research on mental health literacy: What we know and what we still need to know” (Jorm et al., 2006) would seem to illustrate the presuppositions and selective attention that tend to dominate this field of research. The paper could be interpreted as suggesting (perhaps unintentionally) that we do not know, or need to know, about any of the studies cited below in the current paper showing that stereotypes, fear and prejudice are increased, not decreased, by biogenetic causal beliefs, diagnostic labelling and adopting an illness framework. None of these well-documented findings is referenced by Jorm et al. (2006).

The mental health literacy programs, based on the “mental illness is an illness like any other” paradigm, may have other goals beyond destigmatisation, such as early detection and treatment. Nevertheless destigmatisation campaigns and researchers certainly tend to equate knowledge with espousal of the illness paradigm. A Canadian study, emanating from the World Psychiatric Association schizophrenia campaign, and funded by Eli Lilly, portrays the belief that schizophrenia is a “debilitating disease” as not only “knowledgeable” but “sophisticated.” (Thompson et al., 2002). Another study measured “knowledge” with items such as “good mental health is the absence of brain disease” (Aghanwa, 2004). Another even went so far as to use “mental illness is an illness like any other” as an item measuring a “liberal, knowledgeable, benevolent, supportive orientation toward the mentally ill” (Rahav, 1987). A US program taught children that mental illnesses are “illnesses of the brain”, testing them with items such as “Mental illness is like other diseases because a person who has it has symptoms that a doctor can diagnose” (Watson et al., 2004). A recent Swiss study, having asked participants to indicate whether the person in a schizophrenia vignette was experiencing a crisis or had an illness, described the latter response as “correct recognition of the described person as being ill” (Lauber, Nordt, Falcató, & Rossler, 2004). The South African public’s belief in the social causes of schizophrenia and other mental health problems, and their rejection of medication, are characterised as “misinformation”, demonstrating the “need to address ignorance” (Hugo, Boshoff, Traut, Zungu-Dirwayi, & Stein, 2003).

Although the term “mental health literacy” is relatively new, the approach that it exemplifies has been exported around the world from the United States, where it has been deployed for well over half a century. As early as 1961 the United States’ Joint

Commission on Mental Illness and Health (JCMIH) had concluded:

The principle of sameness as applied to the mentally sick versus the physically sick has become a cardinal tenet of mental health education. . . . Psychiatry has tried diligently to make society see the mentally ill in its way and has railed at the public’s antipathy or indifference (JCMIH, 1961, p. 59).

### What the public thinks of biological theories

A 1970 review, “Failure of a moral enterprise”, confirmed that despite psychiatry’s most diligent efforts the US public continued to reject the idea that “mental illness is just like any other illness” (Sarbin & Mancuso, 1970). A 1987 study found that the most frequently cited causes of schizophrenia in the United States were: “environmental stress” and “major unpleasant emotional experiences”, and that the public cited “poor parenting, bad upbringing” more often than psychiatric professionals (Wahl, 1987).

Table 1 summarises studies from 17 countries. It shows that after many years, or, in the United States, decades, of efforts to persuade the public that emotional and psychological disturbance and distress are best thought of as illnesses, the public – including patients and their family members – has proven remarkably resilient to these efforts. This is even the case for schizophrenia, which is widely (but erroneously) believed to be one of the most biogenetically based of psychiatry’s diagnostic constructs, and against whom (not coincidentally) some of the worst prejudice exists (Angermeyer & Matschinger, 2003; Read & Haslam, 2004; Read et al., 2006).

For example, a 1995 survey of more than 2,000 Australians found that the most likely cause of schizophrenia was “day-to-day-problems such as stress, family arguments, difficulties at work or financial difficulties”, which was endorsed as a likely cause by 94% of Australians. “Problems from childhood such as being badly treated or abused, losing one or both parents when young or coming from a broken home” was rated as a likely cause by 88%. “The recent death of a close friend or relative” and “traumatic events” were both rated as a likely cause by 85%. Furthermore 72% believed that the unemployed are more likely to have schizophrenia. Only 59% endorsed “inherited or genetic” (Jorm et al., 1997). In a rare and valuable study of changes over time, the same research team found that by 2003–2004 “inherited or genetic” had increased from 59% to 70%. This figure, however, was still exceeded by all four psychosocial causal beliefs: problems from childhood (91%), day-to-day problems (90%), death of someone close (88%) and

Table 1. Relative strength of biogenetic or psychosocial explanations of schizophrenia

Country and study	Sample	Stimulus	Preference for biogenetic vs. psychosocial causal beliefs
<i>Australia</i>			
Jorm et al. 1997	Public	Vignette	PS
Jorm et al. 2005b	Public	Vignette	PS
<i>Canada</i>			
Thompson et al. 2002	Public	Label	BIO
<i>China</i>			
Phillips et al. 2000	Relatives	Relative's illness	PS
Furnham & Chan 2004	Public	Label	PS
<i>England</i>			
McGill et al. 1983	Relatives	Relative's illness	PS
	Patients	Own illness	PS
Furnham & Rees 1988	Public	Label	PS
Furnham & Bower 1992	Public	Label	PS
Pistrang & Barker 1992	Patients	Own illness	PS
Whittle 1996	Relatives	Relative's illness	PS
	Patients	Own illness	PS
	Staff	Patient's illness	PS
Furnham & Chan 2004	Public	Label	BIO
McCabe & Priebe 2004	Patients	Own illness	PS
<i>Ethiopia</i>			
Shibre et al. 2001	Relatives	Label	PS
<i>Germany</i>			
Angermeyer & Klusmann 1988	Patients	Own illness	PS
Angermeyer et al. 1988	Relatives	Relative's illness	PS
Angermeyer & Matschinger 1994	Public	Vignette	PS
Angermeyer & Matschinger 1996b	Relatives <sup>1</sup>	Vignette	BIO
Gaebel et al. 2002	Public	Label	PS = BIO
Holzinger et al. 2002	Patients	Own illness	PS
Angermeyer & Matschinger 2005a	Public	Vignette	PS
<i>Greece</i>			
Alivistasos & Lykestos 1964	Relatives	Relative's illness	PS
Molvaer et al. 1992	Patients	Own illness	PS
<i>India</i>			
Srinivasan & Thara 2001	Relatives	Relative's illness	PS
<i>Ireland</i>			
Barry & Greene 1992	Public	Vignette	PS
<i>Italy</i>			
Magliano, Fiorillo, et al. 2004	Public	Label	PS
Magliano, De Rosa, et al. 2004	Relatives	Label	PS
	Staff	Label	BIO
<i>Japan</i>			
Tanaka et al. 2005	Public	Vignette	PS
<i>Malaysia</i>			
Razali 1996	Patients	Own illness	PS
<i>Mongolia</i>			
Dietrich et al. 2004	Public	Vignette	PS
<i>Russia</i>			
Dietrich et al. 2004	Public	Vignette	PS
<i>Turkey</i>			
Karanci 1995	Relatives	Relative's illness	PS
Taskin et al. 2003	Public	Label	PS
<i>South Africa</i>			
Hugo et al. 2003	Public	Vignette	PS
<i>USA</i>			
Jones et al. 1963	Patients	Own illness	PS
Weinstein 1974	Patients	Own illness	PS
Lefley 1985	Staff who were also relatives	Label	BIO

(continued)

Table 1. (Continued)

Country and study	Sample	Stimulus	Preference for biogenetic vs. psychosocial causal beliefs
Wahl 1987	Public	Label	PS
Link et al. 1999	Public	Vignette	PS
van Dorn et al. 2005	Patients	Label	BIO
	Relatives	Label	BIO
	Public	Label	BIO
	Staff	Label	BIO

Notes: BIO = biogenetic; PS = psychosocial.

<sup>1</sup>Members of relatives' organisations.

traumatic event (87%) (Jorm, Christensen, & Griffiths, 2005b).

Meanwhile in England Rogers and Pilgrim (1997) found, in relation to mental health in general, that "Life events, family problems and economic hardship were mentioned frequently, with genetic and biological causes noted much less frequently" (p. 29). When Londoners were asked more specifically about schizophrenia: "Overall subjects seemed to prefer environmental explanations referring to social stressors and family conflicts – e.g., 'being mercilessly persecuted by family and friends' and 'having come from backgrounds that promote stress'" (Furnham & Rees, 1988, p. 218). Another London study found that the most-endorsed causal model of schizophrenia was "Unusual or traumatic experiences or the failure to negotiate some critical stage of emotional development", followed by "social, economic, and family pressures" (Furnham & Bower, 1992). "It seems that lay people have not been converted to the medical view and prefer psychosocial explanations" (p. 207). "Subjects agreed that schizophrenic behaviour had some meaning and was neither random nor simply a symptom of an illness" (p. 206). This preference for psychosocial causal explanations has now been demonstrated in 16 countries (Table 1).

### What the public thinks of biological treatments

The public also favour psychosocial treatment approaches for schizophrenia over medication. This has been demonstrated in Australia (Jorm et al., 1997), Austria (Jorm, Angermeyer, & Katschnig, 2000), Canada (Thompson et al., 2002), England (Furnham & Bower 1992), Germany (Angermeyer & Matschinger, 1994), and South Africa (Hugo et al., 2003). For example when Austrians are asked what they would do if a relative became psychotic the most common response is "talk to them" (Jorm et al., 2000, p. 403). The most preferred treatment for schizophrenia in Germany is psychotherapy for 65% of respondents, compared to psychiatric drugs, 15%; and electroconvulsive therapy, 1% (Riedel-Heller,

Matschinger, & Angermeyer, 2005). For Australians, the reasons for rejecting anti-psychotic drugs include: "have more risks than benefits", "lack efficacy because they do not deal with the roots of the problem", and "are prescribed for the wrong reasons (e.g., to avoid talking about problems, to make people believe things are better than they are, as a straight jacket)" (Jorm et al., 2000, p. 404).

A recent review (Angermeyer & Dietrich, 2006) found eight studies confirming that "The particular liking of psychotherapy is more developed for schizophrenia than for depression", and one exception. Recent studies in the United States (Croghan et al., 2003) and Germany (Angermeyer & Matschinger, 2004) suggest that the rejection of psychiatric drugs may be weakening. Between 1990 and 2001 the percentage of the German public recommending drug treatment increased from 31% to 57%. However, the percentage recommending psychotherapy increased from 68% to 83% (Angermeyer & Matschinger, 2005b). Furthermore the US study found that the majority said they would not take the drugs if prescribed for themselves (Croghan et al.).

Bemoaning this gap between what mental health professionals and the public in Australia think of treatments, Jorm and colleagues recently made very explicit the fact that a major goal of illness-based stigmatisation programs is to increase consumption of psychiatric drugs beyond the already alarming and fast increasing levels internationally (Mosher, Gosden, & Beder, 2004; Sharfstein, 2005):

The biggest gap is in beliefs about medication for both depression and schizophrenia, and admission to a psychiatric ward. These gaps may lead to a lack of appropriate help-seeking and a failure to adhere to recommended treatments. Ultimately, they may be an impediment to the implementation of evidence-based health care (Jorm et al., 2006, p. 3).

### Diagnostic labelling and prejudice

One of the intentions of the illness model approach to combating prejudice is to increase the public's willingness ("ability") to see various problems as

illnesses and to assign diagnostic labels to those problems. (In clients this has come to be mislabelled “insight”, in direct contradiction to the original meaning of the word – ability to connect current problems to past life events and internal conflicts about them). Table 1 shows that when studies use a behavioural vignette describing someone experiencing hallucinations, delusions, and so on, the public always attributes psychosocial causes. The only studies producing a public preference for biogenetic explanations are those that use the diagnostic label “schizophrenia”. This suggests that the promulgators of the illness approach to destigmatisation are correct in assuming that increasing the public’s willingness to see problems as illnesses does influence their causal beliefs. Unfortunately, however, they are wrong to assume that it somehow reduces fear and prejudice. Research consistently finds the opposite.

Far from improving attitudes, diagnostic labelling increases perceived seriousness of the person’s difficulties (Cormack & Furnham, 1998), lowers evaluations of the person’s social skills (Benson, 2002) and produces pessimistic views about recovery (Angermeyer & Matschinger, 1996a). It also leads to social distance and rejection (Arkar & Eker, 1994; Sarbin & Mancuso, 1970). In a recent Swiss study, members of the public who “correctly” identified an unlabelled schizophrenia vignette as an illness were more likely than those who believed that it described someone experiencing a crisis, to want to keep their distance from the person (Lauber et al., 2004).

When Germans are asked to label a vignette depicting schizophrenia, the negative effects (more fear) of defining the individual in the vignette as mentally ill “outweigh the positive effects” (less anger) (Angermeyer & Matschinger, 2003). In the same sample of 5025 Germans, labelling the vignette as mental illness was also related to increased perception of dangerousness. This was not replicated in Russia or Mongolia (Angermeyer, Buyantugs, Kenzine, & Matschinger, 2004). In all three countries, however, labelling as mental illness increased the perception of dependency and desire for social distance. In Russia there was an inverse relationship between labelling and the desire to help, leading to an increased desire for social distance. The cross-cultural nature of these findings seems to be confirmed by a public survey in rural Turkey that found that interpretation of schizophrenia as a mental illness leads to more negative attitudes and increases the desire for social distance (Taskin et al., 2003).

### **Causal beliefs and prejudice**

The same pattern of findings emerges from studies of the relationship between causal beliefs and attitudes. In a recent review of 12 studies examining the

relationship to mental illness in general, all but one found either that biogenetic beliefs are related to negative attitudes or that psychosocial beliefs are related to positive attitudes (Read et al., 2006).

For example, two New Zealand studies found that young adults with biogenetic causal beliefs experience ‘mental patients’ as more dangerous and unpredictable, and are less likely to interact with them, than those with psychosocial causal beliefs (Read & Harre, 2001; Read & Law, 1999). Presenting information about psychosocial causes, and critiquing biological theories, significantly improved attitudes (Read & Law, 1999).

Moving from studies of mental illness in general to those examining schizophrenia in particular does not alter the outcome. A New Zealand study, using an experimental rather than the usual survey design, found that viewing a video of a person describing hallucinations and delusions followed by a biogenetic explanation significantly increased perceptions of dangerousness and unpredictability. A video of the identical behaviours explained as reactions to adverse life events led to a small (non-significant) improvement in attitudes (Walker & Read, 2002).

Studies of 5025 Germans investigated whether biological beliefs about schizophrenia are related to attitudes, and found that neither “brain disease” nor “heredity” had any effect on anger, but that both increased fear. If psychosocial stress was seen as the cause, reactions were more favourable (Angermeyer & Matschinger, 2003). Further analysis of the same data has confirmed specific relationships between biogenetic causal beliefs (particularly “brain disease”) and perceived dangerousness, fear and desire for distance (Dietrich, Matschinger, & Angermeyer, 2006).

The same research team (Dietrich et al., 2004) have analysed interviews with 745 Russians and 950 Mongolians plus their original sample, which consisted of West and East Germans. In a logistic regression analysis controlling for demographics, belief that heredity is a cause of schizophrenia was associated with greater desire for distance in all four samples. Belief that it is a brain disease was associated with greater desire for distance in three of the four samples. In Mongolia belief in three of the four psychosocial causes (stress at work; broken home; and lack of parental affection; but not recent life event) were associated with reduced desire for distance. “Lack of parental affection” was also found to be related to less desire for distance in Russia and West Germany. A trend analysis of changes in causal beliefs and desire for distance over 11 years (Angermeyer & Matschinger, 2005a) found that “Although the endorsement of biological causes increased substantially, the public’s rejection of people with schizophrenia increased in the same

period" (p. 333). In both 1990 and 2001 biological causal beliefs were related to greater desire for distance.

Organisations of psychiatric patients have long expressed concern about the effects of a medical model perspective on their self-esteem, accusing it not only of increasing stigma but also of minimising the complexity of their lives and their capacity for recovery (Campbell, 1992; O'Hagan, 1992). Presenting a psychosocial explanation to clients induces more efforts to change than a disease explanation, with the latter group more often using alcohol to relieve their distress (Fisher & Farina, 1979). Birchwood, Mason, MacMillan, and Healy (1993) found that "patients who accepted their diagnosis reported a lower perceived control over illness" and that depression in psychotic patients is "linked to patients' perception of controllability of their illness and absorption of cultural stereotypes of mental illness" (p. 387).

This relationship between biogenetic causal beliefs and negative attitudes has also been found in professionals. Staff with a biological perspective assess patients as more disturbed (Langer & Abelson, 1974), are less likely to ask them about adverse life events that might have caused their difficulties (Cavanagh, Read, & New, 2004) and are less inclined to involve patients in planning or managing services (Kent & Read, 1998).

### **Why do biogenetic beliefs increase prejudice?**

The mechanisms by which biological beliefs increase fear and prejudice have only recently received the research attention they merit (Read & Haslam, 2004; Read et al., 2006). Australian researchers are in the forefront of this work too. They have argued that a belief in categories that are discrete, immutable and invariably rooted in a biological abnormality reflect the medical model's essentialist view of mental disorders as "natural kinds" (Haslam, 2000, 2003, 2005). Viewing mental disorders in this essentialist fashion (Haslam & Ernst, 2002) is associated with prejudice along multiple pathways (Haslam, Rothschild, & Ernst, 2002). Believing in immutability may promote pessimism and avoidance. Believing in a biological essence promotes the view that the disorder represents uncontrollable, untamed nature. Believing in discreteness promotes the view that sufferers are categorically different, rather than sharing in our common humanity. These essentialist beliefs form a toxic ensemble.

A British discussion of the origins and functions of stigmatisation covered evolution, economics, politics and self-interest (Haghighat, 2000). Mehta and Farina (1997) suggest that viewing distressed people

as sick, while discouraging blame, produces a patronising attitude in which they "like children, must be treated firmly. They must be shown how to do things and where they have erred. Hence the harsher treatment." They add that believing in "biochemical aberrations" renders them "almost another species". Their own study addressed the rather neglected, but crucial, research question of whether all these attitudes and beliefs do actually translate into behaviour. They found that participants in a learning task increased electric shocks faster if they understood their partner's problems in disease terms than if they believed they were a result of childhood circumstances (Mehta & Farina).

Another factor may be our need to deny our own fear of "going crazy" and to project our "madness" onto others. Causal beliefs that not only create the impression of a categorically separate group (thereby denying the dimensionality of emotional distress) but also exaggerate the difference between the two groups by proposing genetic aberrations, seem likely to fuel the reciprocal processes of distancing, fear, projection and scapegoating. When the suggested differences imply brain functioning so grossly abnormal that a person is denied responsibility for their actions, then our fear is further fuelled by the belief that the person could at any moment totally lose control. This may indeed, as suggested earlier, be accompanied by the belief that this unpredictability, which may express itself violently, needs to be severely, even harshly, controlled. This hypothesis draws support from the finding that the less we hold mental patients responsible for their behaviour the more harshly we treat them, and the less aware we are of the harshness of that treatment (Mehta & Farina, 1997).

### **Evidence-based alternatives**

An evidence-based approach to combating prejudice requires consideration of alternatives to promoting biogenetic causal theories. There is strong evidence that viewing "psychiatric symptoms" as understandable psychological or emotional reactions to life events is related to reduced fear, distance and discrimination (Arkar & Eker, 1996; Coker, 2005; Morrison, 1980; Morrison, Becker, & Bourgeois, 1979; Morrison & Teta, 1979, 1980; Read & Harre, 2001; Read & Law, 1999; Walker & Read, 2002). The recent large German, Russian and Mongolian studies have confirmed this (Angermeyer & Matschinger, 1996a; Dietrich et al., 2004).

There is a strong research consensus that biological, social and psychological factors all contribute to the actual aetiology of schizophrenia (Bentall, 2003; Murray, Jones, Susser, van Os, & Cannon, 2003; Read, Mosher, & Bentall, 2004). Which aetiological

factors, if any, should be highlighted in anti-stigma programs is a different question to the actual aetiological contribution of various factors. The two questions appear linked, however, by the broader issue of the dominance of biological ideology, often at the expense of a more scientific approach, in both domains. In the domain of the actual causes of schizophrenia an illusion of a balanced integration of the various causal factors has been created by the so-called “bio-psychosocial” paradigm. This model does include social factors but only as mere triggers of a supposed genetic predisposition. For several decades, it has been supposed that life events and social circumstances cannot actually cause schizophrenia by themselves. This is not a balanced integration; it is a colonisation of one set of factors by another (Read, 2005). Just as the biological approach to reducing stigma is challenged by all the studies cited above showing that it increases rather than decreases prejudice, biological theories about the actual causes of schizophrenia are contested by severe critiques of the methodology of the studies purporting to support a dominant aetiological role for biology (e.g., Bentall, 2003; Joseph, 2003, 2004; Read, 2004a). These biological theories also tend to ignore the obvious fact that finding brain differences proves nothing because those changes can themselves be caused by life events. This has been demonstrated by the fact that virtually all of the brain differences found in adults diagnosed as schizophrenic can be found in the brains of severely traumatised children (Read, Perry, Moskowitz, & Connolly, 2001). Furthermore, the public may be right to be sceptical about psychiatric drugs (Ross & Read, 2004; Scott, 2006) and to favour psychosocial interventions. There is now convincing evidence that psychological treatments are effective for the symptoms of schizophrenia (Bentall, Dunn, Morrison, Renton, & Williams, 2003; Cullberg, 2006; Johannessen, Martindale, & Cullberg, 2006; Kingdon & Turkington, 2005; Read, Mosher, et al., 2004), and a worldwide movement to lobby for a more balanced and integrated approach to treatment, in the form of the *International Society for the Psychological Treatments of Schizophrenia* ([www.isps.org](http://www.isps.org)), with branches in Australia and New Zealand.

Of particular interest in the present context, the biological approach that has dominated until recently has also tended to ignore the possibility that the public, including patients and their families, may actually be right in their beliefs about what causes mental health problems, including schizophrenia. For example, a review of recent research concludes that “Symptoms considered indicative of psychosis and schizophrenia, particularly hallucinations, are at least as strongly related to childhood abuse and neglect as many other mental health problems. Recent large-scale general population studies

indicate the relationship is a causal one, with a dose-effect” (Read, van Os, Morrison, & Ross, 2005). Recently, in a remarkably short period of time (approx. the last 8–10 years) researchers have penetrated the virtual taboo on research into the psychosocial causes of schizophrenia that clouded the last decades of the 20th century (Read, Mosher, et al., 2004). Psychiatrists, psychologists and others are now repeatedly demonstrating, often in large-scale and prospective studies, that the social causes cited by the public all over the world are correct. They include poverty (Harrison, Gunnell, Glazebrook, Page, & Kwiecinski, 2001; Read, 2004b), urban living (Spauwen, Krabbendam, Lieb, Wittchen, & van Os, 2004a; van Os, Pedersen, & Mortensen, 2004), racism (Karlsen & Nazroo, 2002; Read, 2004b), other forms of discrimination (Janssen et al., 2003), having a battered mother (Whitfield, Dube, Felitti, & Anda, 2005), growing up in a hostile or confusing family environment (Goldstein, 1987; Read, Seymour, & Mosher, 2004), child abuse (Bebbington et al., 2004; Janssen et al., 2004; Larkin & Morrison, 2006; Read et al., 2005; Shevlin, Dorahy, & Adamson, 2007; Whitfield et al., 2005), and early maternal stress (Spauwen, Krabbendam, Lieb, Wittchen, & van Os, 2004b). Not knowing is no longer a valid excuse. These studies have received widespread international media coverage (e.g., James, 2005; Pepper, 2005). In June, 2006, the Institute of Psychiatry in London hosted a public debate about whether child abuse is a cause of psychosis. The motion was carried 114 to 52 (New Scientist, 2006; [www.iop.kcl.ac.uk](http://www.iop.kcl.ac.uk)).

Destigmatisation programs that combat prejudice by portraying mental health difficulties as understandable reactions to adverse events will not only be based on sound evidence that this approach works, they will also have solid evidence behind them to show that social factors are indeed causal. They will also, of course, have the added bonus of speaking the same language as the targets of their anti-prejudice efforts rather than trying to force down an apparently unpalatable set of causal beliefs.

Some efforts to reduce discrimination against people labelled mentally ill either do not adopt a medical paradigm or ignore causality altogether (Sayce, 2000; Schulze, Richter-Werling, Matschinger, & Angermeyer, 2003). The principles on which many of these programs are based include: acknowledging and valuing differences, promoting positive participation and contributions by people with mental health problems, addressing the power differentials that underpin discrimination, taking a multi-faceted approach, tackling stereotypes about violence (including efforts to contain the media in this area), legislation to decrease discrimination, including the people on the receiving end of the

discrimination in the design, management and provision of programs, targeting different groups (gender, age, ethnicity, etc.) differently including children (but not with attempts to promote a biogenetic perspective) (Estroff, Penn, & Toporek, 2004; Read et al., 2006; Sayce, 2000).

Another principle, one with particularly strong research support, is that of increasing contact with the people who are the object of the discrimination (Angermeyer & Dietrich, 2006; Angermeyer, Matshinger, & Corrigan, 2004; Chou & Mak, 1998; Read & Harre, 2001; Read & Law, 1999; Schulze et al., 2003).

Finally, we must be vigilant about the motivation of funders. This may be especially the case in relation to the pharmaceutical industry. The ethics of drug companies have recently been increasingly called into question, not only by journalists but finally, after decades of virtual silence, by academics and professionals (Mosher et al., 2004). In a paper entitled "Is academic medicine for sale?" The editor of the *New England Journal of Medicine* noted:

The ties between clinical researchers and industry include not only grant support, but also a host of other financial arrangements. Researchers also serve as consultants to companies whose products they are studying, join advisory boards and speakers' bureaus, enter into patent and royalty arrangements, agree to be the listed authors of articles ghostwritten by interested companies, promote drugs and devices at company sponsored symposiums and allow themselves to be plied with expensive gifts and trips to luxurious settings. Many also have equity interest in the companies. (Angell, 2000, p. 1517).

In 2002, the *British Medical Journal* published "Selling sickness: The pharmaceutical industry and disease mongering" (Moynihan, Heath, & Henry, 2002), arguing that "Pharmaceutical companies are actively involved in sponsoring the definition of diseases and promoting them to prescribers and consumers. The social construction of illness is being replaced by the corporate construction of disease" (p. 886), and concluding that "A publicly funded and independently run program of 'de-medicalisation', based on respect for human dignity, rather than shareholder value or professional hubris, is overdue" (p. 890).

British psychiatrists Joanna Moncrieff and Phil Thomas (2002, p. 886) added:

The influence of the pharmaceutical industry is particularly pernicious in psychiatry where the possibilities for colonising ever more aspects of human life are potentially limitless... The financial muscle of the pharmaceutical industry has helped to tip the scales in favour of a predominantly biological view of psychiatric disorder.

One of the many dubious practices emerging from the shadows is the funding of community or family organisations that then lobby governments for initiatives likely to increase company profits (Mosher et al., 2004). It seems these groups are particularly likely to espouse biogenetic causal beliefs and to further the companies' goal of promoting those beliefs to the broader public. For instance, of the eight studies in Table 1 in which relatives were asked about causes, the only one to produce a biogenetic finding was the study of members of family organisations. The other seven studies, of family members in general, found that psychosocial causes were espoused more than biogenetic explanations.

Even the president of the American Psychiatric Association recently warned that "As we address these Big Pharma issues, we must examine the fact that as a profession, we have allowed the bio-psychosocial model to become the bio-bio-bio model" (Sharfstein, 2005, p. 3). Progress towards a more evidence-based and effective approach to reducing prejudice may require a move to alternative funding, including government bodies who, hopefully, might be more interested in what actually works than in promoting a particular ideology or increasing sales of a particular type of product.

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