

Do people with mental illness deserve what they get? Links between meritocratic worldviews and implicit versus explicit stigma

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Abstract Meritocratic worldviews that stress personal responsibility, such as the Protestant ethic or general beliefs in a just world, are typically associated with stigmatizing attitudes and could explain the persistence of mental illness stigma. Beliefs in a just world for oneself (“I get what I deserve”), however, are often related to personal well-being and can be a coping resource for stigmatized individuals. Despite these findings in other stigmatized groups, the link between worldviews and the stigma of psychiatric disorders is unknown. We measured just world beliefs for self and others as well as endorsement of the Protestant ethic in 85 people with schizophrenia, schizoaffective or affective disorders and 50 members of the general public. Stigmatizing attitudes toward people with mental illness (perceived responsibility, perceived dangerousness, general agreement with negative stereotypes) were assessed by self-report. Using a response-latency task, the Brief Implicit Association Test, we also examined guilt-related implicit negative stereotypes about mental illness. We found a consistent positive link between endorsing the Protestant ethic and stigmatizing self-reported attitudes in both groups. Implicit guilt-related stereotypes were positively associated with the Protestant ethic

only among members of the public. Among people with mental illness, stronger just world beliefs for self were related to reduced self-stigma, but also to more implicit blame of persons with mental illness. The Protestant ethic may increase (self-)stigmatizing attitudes; just world beliefs for oneself, on the other hand, may lead to unexpected implicit self-blame in stigmatized individuals. Public anti-stigma campaigns and initiatives to reduce self-stigma among people with mental illness should take worldviews into account.

Keywords Stigma · Prejudice · Protestant ethic · Just world beliefs · Implicit Association Test

Introduction

Mental illness stigma is common [2] and remains a major burden on individuals with psychiatric disorders [1], their families [37] and caregivers [36, 53], further increasing the impact of mental illness on society [50]. Stigma can seriously undermine the clinical course, quality of life and well-being of people with mental illness [12]. People with mental illness are often held responsible for their condition, a view that reflects a common prejudice and important target for current anti-stigma initiatives aiming to reduce public stigma and its impact on people with mental illness [6, 20, 40, 59]. Widely endorsed ideologies in western societies can explain why stigma against people with mental illness is so persistent. A better understanding of how these worldviews are associated with stigma can therefore improve anti-stigma efforts [33, 63]. This applies to public anti-stigma interventions as well as to attempts in clinical or self-help settings to reduce self-stigma and its burden on people with mental illness.

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Meritocratic worldviews hold that individuals are personally responsible for the outcomes they experience (“They are to blame for their depression and should just pull themselves together”). These common beliefs can justify status differences in society, such as discrimination against people with mental illness, and give individuals the reassuring feeling that the world is fair and they have control over their lives [22]. Typical examples include the Protestant ethic, which stresses the necessity of hard work and personal responsibility [61], and the belief in a fundamentally just and fair world. Just world beliefs reflect the view that people get what they deserve and deserve what they get [18, 25].

These worldviews can influence public attitudes toward stigmatized minorities and attitudes of stigmatized minorities toward their own group. For instance, endorsing the Protestant ethic was found to be associated with more racist attitudes among members of the public [14, 23]. As a parallel phenomenon among stigmatized individuals, increased endorsement of the Protestant ethic led to lower self-esteem in overweight women [38]. With respect to just world beliefs, research has shown an important distinction between beliefs in a just world for self (“I get what I deserve”) and just world beliefs for others (“Others get what they deserve”) [29]. Just world beliefs for others, as an index of meritocracy ideology and similar to Protestant ethic, are associated with more stigmatizing attitudes toward minorities [4, 10, 57]. On the other hand, just world beliefs for self can be a coping resource for stigmatized individuals and are therefore not only associated with increased well-being and self-esteem [29], but specifically with reduced distress in response to social devaluation or unemployment [3, 11, 35].

In terms of measuring stigmatizing attitudes, a recent review on just world beliefs [18] pointed out the benefit of incorporating indirect measures that are not influenced by self-presentational strategies and that may capture biases of which individuals are not fully aware or able to report accurately [32, 34]. Indirect measures use reaction-times to detect implicit-automatic associations between, for example, ‘Mental Illness’ and ‘Guilt’. Such measures can also assess subtle manifestations of ingroup blame among stigmatized individuals, a possible consequence of endorsing meritocratic ideologies [31]. Indirect measures are also less susceptible to strategic response distortions and self-presentational strategies and therefore particularly helpful in work on stigma, where participants may hesitate to openly endorse stigmatizing statements. Furthermore, indirect versus deliberate responses often independently predict outcome variables, again particularly in the domain of stigma [17]. Attitude researchers have therefore become increasingly interested in implicit-automatic aspects of cognition and have documented many dissociations

between rapid, automatic reactions and more thoughtful, deliberative ones [13]. Persons with or without mental illness may automatically associate ‘Mental Illness’ with ‘Guilt’ and thus implicitly harbor guilt-related negative stereotypes about mental illness. Automatic and deliberative aspects of stigmatizing attitudes can predict different kinds of cognitive, affective, and behavioral tendencies [17] and may respond differently to attempts to reduce stigma [26, 56]. In the current study, we employed the Brief Implicit Association Test (BIAT [55]) to measure implicit guilt-related stereotypes about mental illness. To the extent that people believe in personal responsibility for one’s life outcomes, they may automatically associate persons experiencing mental illness with guilt.

Despite extensive research on other stigmatized groups and initial evidence supporting a link between personal values and endorsement of mental illness stigma [33], we are not aware of any studies on meritocratic worldviews and prejudice against people with mental illness. We therefore examined the link between meritocratic worldviews and mental illness stigma, among both members of the public and people with mental illness. Although implicit and explicit attitudes are hypothesized to relate to meritocratic worldviews similarly, they are nevertheless expected to be relatively uncorrelated with one another. We set out to examine the following hypotheses. First, we expected stronger endorsement of the Protestant ethic to be associated with more negative implicit and explicit attitudes toward people with mental illness in both groups, including a positive correlation between endorsing the Protestant ethic and self-stigma in persons with mental illness. Second, among members of the public, we predicted that increased just world beliefs for others would be related to more stigmatizing implicit and explicit reactions toward persons with mental illness. Third, we assumed that among individuals with mental illness just world beliefs for self would be negatively correlated with self-stigma as an index of stigma-related distress.

Methods

Participants

Eighty-five persons with mental illness were recruited from outpatient mental health centers in the Chicago area and in the context of a larger study on mental illness stigma [8, 41–45, 47, 48]. The study was advertized using flyers and information about the study was provided by one of the researchers (N.R.), for example during group meetings in drop-in centers for people with mental illness. All participants provided written informed consent, and the study was approved by the institutional review boards of the Illinois

Institute of Technology and the collaborating organizations. All data for this study were collected in 2008, and it took approximately 30 min to complete the questionnaire and computer-based measures. An eighth-grade reading level as assessed by the Wide Range Achievement Test [62] was required. Fifty members of the general public were matched for age, gender, and ethnicity to the diagnosed group (Table 1). They were screened and excluded from the study if any life-time or current axis I disorder was detected. Physical disabilities were an exclusion criterion to avoid confounds in the indirect measure that used physical disability as a comparison category for mental illness. Participants with mental illness were, on average, about 45 years old, and about two-thirds were male. More than half were African American, about a third Caucasian, while a few reported Hispanic, mixed, or other ethnicities (Table 1). Axis I diagnoses were made using the Mini-International Neuropsychiatric Interview [54] based on DSM-IV criteria. Thirty (35%) participants had a bipolar I or II disorder, 10 (12%) recurrent unipolar major depressive, 22 (26%) schizoaffective disorder, and 23 (27%) participants had schizophrenia (for details see [44, 45]). On average, participants with mental illness were first diagnosed almost 15 years ago ($M = 14.9$, $SD = 10.2$) and had been hospitalized in psychiatric institutions about nine times ($M = 9.2$, $SD = 13.1$).

Worldview measures

We used the 11-item Protestant Ethic Scale of Katz and Hass [23] that measures whether people endorse self-discipline, hard work and personal responsibility (e.g., “A distaste for hard work usually reflects a weakness of character” or “Most people who don’t succeed in life are just plain lazy”), with a higher sum score (possible range: 11–77) indicating stronger endorsement of the Protestant ethic (Cronbach’s alpha 0.70). Beliefs in a just world refer to the perception that people get what they deserve and deserve what they get. We assessed two domains, just world beliefs for self (I get what I deserve) and for others (others get what they deserve), using the 16-item scale of Lipkus and colleagues [29], with higher average scores (possible range: 1–7) for each of the two subscales indicating stronger perceptions of fairness for self (Cronbach’s alpha 0.84) and others (Cronbach’s alpha 0.82), respectively.

Self-report stigma measures

Both groups of participants completed Corrigan’s Attribution Questionnaire [7] to assess two typical negative attitudes, namely that people with mental illness (a) are responsible for their condition (Cronbach’s alpha 0.42) and that they (b) are dangerous (Cronbach’s alpha 0.85). Both

Table 1 Demographic, worldview and stigma variables among 85 persons with mental illness when compared to 50 members of the general public

	Persons with mental illness ($n = 85$)	Controls ($n = 50$)	(T or χ^2) ^a	P
Age, M (SD)	44.8 (9.7)	45.0 (8.1)	0.11	0.91
Gender (% female)	32%	30%	0.05	0.83
Ethnicity (% African American/Caucasian/Hispanic/Other or Mixed)	58/34/5/4	60/32/6/2	0.42	0.94
Belief in a just world for self, M (SD) ^b	4.30 (1.2)	4.92 (1.0)	−3.07	0.003
Belief in a just world for others, M (SD) ^b	3.58 (1.1)	3.60 (1.1)	−0.07	0.95
Protestant ethic, M (SD) ^c	48.5 (10.0)	50.8 (9.4)	−1.28	0.20
Responsibility, M (SD) ^d	11.2 (4.9)	9.4 (3.9)	2.12	0.04
Dangerousness, M (SD) ^d	9.1 (5.2)	10.2 (5.6)	−1.07	0.29
Stereotype agreement, M (SD) ^e	32.1 (17.0)	34.0 (14.4)	−0.67	0.51
Self-stigma, M (SD) ^e	23.5 (14.4)	–	–	–
Mental Illness-Guilty BIAT, D-score, M (SD) ^f	0.15 (0.44)	0.19 (0.46)	−0.45	0.65

^a Comparisons are χ^2 tests for proportions, or t -tests for means across each row (two-sided)

^b Higher scores represent stronger perceptions of fairness for self (“I get what I deserve”) or for others (“Others get what they deserve”), respectively [29]

^c Protestant Ethic Scale [23]; higher scores indicate stronger endorsement of the Protestant ethic

^d Attribution Questionnaire [7]; higher scores indicate more perceived responsibility of people with mental illness for their condition or more perceived dangerousness of persons with mental illness, respectively

^e Self-stigma in Mental Illness Scale [9]; higher scores represent stronger agreement with negative stereotypes about people with mental illness or self-esteem decrement due to self-stigma, respectively

^f Brief Implicit Association Test [55], higher D-scores indicate a stronger association between ‘Mental Illness’ and ‘Guilty’. Valid BIAT data were available for 78 participants with mental illness and 46 members of the public

subscales comprised three items each, and the two sum scores had a possible range between 3 and 27. As a general measure of endorsing negative attitudes, both groups also completed the stereotype agreement subscale (Cronbach's alpha 0.90) of Corrigan's Self-Stigma in Mental Illness Scale [9, 46]. This subscale indicates agreement with typical negative stereotypes about people with mental illness (e.g., "I think most persons with mental illness cannot be trusted"). Additionally, to measure self-stigma, we asked the diagnosed group to complete the Self-Stigma in Mental Illness Scale's subscale of self-esteem decrement due to self-stigma (Cronbach's alpha 0.88). It measures the degree to which people with mental illness not only agree with public stereotypes, but also apply them to themselves, resulting in low self-esteem and self-stigma (e.g., "I currently respect myself less, because I cannot be trusted"). Both subscales contain 10 items (possible range: 10–90).

Indirect measure

We used a response-latency measure, the Brief Implicit Association Test (BIAT [55]), to assess implicit guilt-related negative stereotypes about mental illness. This shorter version of the standard IAT [15] was selected because we expected more participants to complete this version. It had been used in the same group to measure implicit aspects of self-stigma [42] and of attitudes toward psychiatric medication [49]. During the BIAT, participants classified a series of words into superordinate categories. The target categories were "Mental Illness" versus "Physical Disability," and the attribute categories were "Guilty" versus "Innocent." Unlike the standard IAT, in the BIAT one of the four categories is never relevant to the participants' categorization instructions and is therefore a non-focal category (Physical Disability, in our BIAT).

The logic of the task is that verbal stimuli are classified more quickly when the target and attribute category pairing (e.g., Mental Illness/Guilty) matches respondents' automatic associations with the target category versus when the target and attribute category pairing is mismatched (e.g., Mental Illness/Innocent). During the BIAT, a series of words was presented that either did or did not match one of the two specified categories represented on the top of the screen. Participants' task was to press a right-hand response key if the word matched either of the two categories and a left-hand response key if it did not match either category. There were two blocks of 20 trials each, one with the category pairing Mental Illness/Guilty and the other one with the pairing Mental Illness/Innocent. In each block, the first four practice trials were excluded from analyses (for details see [55]). BIAT data with more than 30% errors were excluded from analyses [58], leaving 78

BIATs valid in the diagnosed group and 46 BIATs valid among members of the general public.

We used the following stimuli, four for each category: Mental Illness (mentally disturbed, mental illness, mentally unbalanced, mentally ill), Physical Disability (physically impaired, physical disability, physically disabled, physically handicapped), Guilty (blameworthy, guilty, guilt, blame), and Innocent (faultless, innocence, innocent, guiltless). The sequence of blocks within each BIAT was counterbalanced across participants. BIAT scores were calculated using the improved scoring algorithm, resulting in a D-measure [16], with more positive values representing a stronger association between Mental Illness and Guilty.

Results

Worldviews and stigmatizing attitudes across groups

People with mental illness had lower just world beliefs for self than did members of the public, suggesting that individuals with mental illness expressed a relatively stronger view of not getting what they deserve (Table 1). In terms of stigmatizing attitudes, individuals with mental illness perceived people with mental illness as more responsible for their condition than did members of the public (Table 1). Other explicit or implicit responses did not differ between the two groups.

Within each group, just world beliefs for self were significantly higher than just world beliefs for others, both among people with mental illness ($t = 4.80$, $P < 0.001$) and among members of the public ($t = 7.93$, $P < 0.001$). Just world beliefs for self and for others were moderately correlated in both groups (Pearson correlations, $r = 0.29$, $P = 0.006$, and $r = 0.34$, $P = 0.02$, for participants with and without mental illness, respectively). Implicit guilt-related stereotypes about mental illness (Mental Illness-Guilty BIAT scores) were not related to self-reported explicit attitudes in either group (Pearson correlations, all P values > 0.20).

We also examined differences in worldviews and attitudes among the four groups of participants with bipolar disorder, unipolar depression, schizoaffective disorder, or schizophrenia. Analyses of variance did not indicate significant group effects for just world beliefs for self ($F = 0.96$, $df = 3$, $P = 0.41$; P values > 0.55 in post hoc Scheffé tests between subgroups), just world beliefs for others ($F = 1.75$, $df = 3$, $P = 0.16$; P values > 0.25 in post hoc Scheffé tests between subgroups), or endorsement of the Protestant ethic ($F = 1.47$, $df = 3$, $P = 0.23$; P values > 0.25 in post hoc Scheffé tests between subgroups). In terms of self-reported attitudes, perceived responsibility ($F = 0.31$, $df = 3$, $P = 0.82$; P values > 0.85 for post hoc Scheffé tests

Table 2 Pearson correlations between worldview variables (top row) and stigmatizing attitudes (left column) among 85 people with mental illness

	Belief in a just world, for self ^a	Protestant ethic ^b
Responsibility ^c	0.10	0.34**
Dangerousness ^c	0.01	0.34**
Stereotype agreement ^d	−0.10	0.29**
Self-stigma ^d	−0.26*	0.27*
Implicit ‘Mental Illness–Guilty’ association ^e	0.30**	0.08

^a Just World Beliefs for self [29]; higher scores represent stronger perception of fairness (“I get what I deserve”)

^b Protestant Ethic Scale [23]; higher scores indicate stronger endorsement of the Protestant ethic

^c Attribution Questionnaire [7]; higher scores indicate more perceived responsibility of people with mental illness for their condition or more perceived dangerousness of persons with mental illness, respectively

^d Self-stigma in Mental Illness Scale [9]; higher scores represent stronger agreement with negative stereotypes about people with mental illness or self-esteem decrement due to self-stigma, respectively

^e Brief Implicit Association Test [55]; higher scores indicate a stronger implicit ‘Mental Illness–Guilty’ association. Valid BIAT data were available for 78 participants

* $P < 0.05$; ** $P < 0.01$

between subgroups) and stereotype agreement ($F = 1.95$, $df = 3$, $P = 0.13$; P values > 0.18 for post hoc Scheffé tests between subgroups), there was no significant difference between subgroups and the same applied to guilt-related implicit stereotypes (BIAT: $F = 0.79$, $df = 3$, $P = 0.51$; P values > 0.55 for post hoc Scheffé tests between subgroups). However, diagnostic subgroups differed in perceived dangerousness of people with mental illness ($F = 3.63$, $df = 3$, $P = 0.02$); participants with schizoaffective disorder endorsed danger-related stereotypes significantly more strongly ($M = 12.0$, $SD = 5.9$) than did individuals with schizophrenia ($M = 7.3$, $SD = 4.3$, $P = 0.02$ in post hoc Scheffé test; all P values > 0.17 for post hoc Scheffé tests between other diagnostic subgroups).

Worldview and attitudes toward mental illness in the diagnosed group

We assessed the link between worldviews and attitudes toward people with mental illness separately for each group. Examining our first and third hypotheses among people with mental illness, stronger just world beliefs for self were related to lower levels of explicit self-stigma, but to increased guilt-related implicit stereotypes (Table 2).

Just world beliefs for self were unrelated to the other attitude measures. Endorsement of the Protestant ethic, on the other hand, was consistently related to more negative self-reported attitudes, including self-stigma, but not to implicit guilt-related stereotypes regarding mental illness (Table 2).

Worldview and attitudes toward mental illness in members of the public

Testing our first and second hypotheses among members of the public (Table 3), a stronger belief in a just world for others was marginally related to more perceived responsibility of people with mental illness for their condition, but not to other explicit or implicit attitudes. Stronger endorsement of the Protestant ethic was consistently associated with more negative self-reported attitudes toward people with mental illness, with the exception of perceived responsibility. A stronger Protestant ethic was also related to stronger guilt-related implicit stereotypes about mental illness.

Discussion

We studied the link between meritocratic worldviews and mental illness stigma among people with mental illness as well as among members of the public. For people with and without mental illness, results largely supported our first hypothesis that the Protestant ethic was associated with more stigmatizing attitudes. This link extended beyond self-report measures to implicit guilt-related stereotypes among members of the public. Among individuals with mental illness, endorsement of the Protestant ethic was not significantly associated with implicit blame of people with mental illness, possibly because the attitude measures in general were more weakly related to the Protestant ethic in the diagnosed group than in the public.

Examining our second hypothesis, we found little support for a link between just world beliefs for others and endorsing stigma among members of the general public. The fact that the Protestant ethic, not just world beliefs for others, was related to more stigmatizing attitudes among the public may reflect that the Protestant Ethic measure included more judgmental and generalizing statements than the just world belief measure, which specifically focused on responsibility. This interpretation is consistent with our finding that among members of the public, just world beliefs for others and holding people with mental illness responsible for their condition were marginally associated. In fact, perceived responsibility of people with mental illness might be seen as a specific example of the more

Table 3 Pearson correlations between worldview variables (top row) and stigmatizing attitudes (left column) among 50 members of the public

	Belief in a just world, for others ^a	Protestant ethic ^b
Responsibility ^c	0.27 [†]	0.08
Dangerousness ^c	0.21	0.37**
Stereotype agreement ^d	0.21	0.39**
Implicit ‘Mental Illness–Guilty’ association ^e	−0.13	0.34*

^a Just World Beliefs for others [29]; higher scores represent stronger perception of fairness (“Others get what they deserve”)

^b Protestant Ethic Scale [23]; higher scores indicate stronger endorsement of the Protestant ethic

^c Attribution Questionnaire [7]; higher scores indicate more perceived responsibility of people with mental illness for their condition or more perceived dangerousness of persons with mental illness, respectively

^d Self-stigma in Mental Illness Scale [9]; higher scores represent stronger agreement with negative stereotypes about people with mental illness

^e Brief Implicit Association Test [55]; higher scores indicate stronger implicit ‘Mental Illness–Guilty’ association. Valid BIAT data were available for 46 participants

[†] $P < 0.10$, * $P < 0.05$, ** $P < 0.01$

general just world belief that people get what they deserve (e.g., become mentally ill).

Regarding our third hypothesis, findings among people with mental illness support the optimistic notion that beliefs in a just world for oneself, being associated with reduced self-stigma, may be a coping resource like in other groups [3, 11, 35]. On the down side, however, just world beliefs for self were associated with increased implicit blame of one’s own stigmatized group. To blame one’s own group may serve the function of defending a worldview in which stigmatized individuals are responsible for their own condition [31]. Therefore, endorsing just world beliefs for oneself may be a double-edged sword for people with mental illness. While reducing self-reported stigma-related distress, it appears to increase more automatic guilt-related reactions, thus augmenting stigma’s pernicious effects on stigmatized individuals. Emotions such as shame and guilt have been neglected in stigma research [27, 28], although they are associated with social withdrawal [46], reluctance to seek help for depression [51], and the acceptance of discrimination as fair and legitimate [48].

The fact that, within each group, just world beliefs for self were higher than just world beliefs for others may add to our understanding of this commonly found difference. It has been suggested that relatively higher just world beliefs for self than for others are typically observed because most studies have focused on student populations that face

relatively little discrimination and therefore correctly believe in a world that is fairer for themselves than for others [4]. However, we found the same pattern of relatively stronger just world beliefs for self than for others in people with chronic mental illness, a group that frequently experiences discrimination. Therefore, Bègue and Bastounis’ hypothesis [4] cannot explain higher just world beliefs for self in this group. On the other hand, we did find lower just world beliefs for self among individuals with mental illness when compared to members of the public. This probably reflects the pervasive actual experience of discrimination among people with psychiatric disorders.

In people with mental illness, we did not observe differences in the endorsement of meritocratic worldviews between diagnostic subgroups. This could suggest that our findings apply to people with serious mental illnesses in general, independently of diagnosis. However, diagnostic subgroups were small and negative findings in subgroup comparisons were not robust; furthermore, diagnosis was associated with the level of perceived dangerousness of other people with mental illness. Therefore, the potential role of diagnosis for the link between worldviews and stigma requires further investigation. Before drawing conclusions, other limitations of our study need to be considered. First, we cannot determine causality because our data were cross-sectional, and we did not experimentally manipulate worldview variables or attitudes. Second, while people with serious and chronic mental illness and multiple psychiatric hospitalizations in our study represent a group facing pervasive public stigma, future research will need to determine whether our findings can be generalized to other stigmatized groups. Third, since the questionnaires were administered in identical order to all participants, possible order effects cannot be ruled out. Fourth, due to the low internal consistency of the perceived responsibility measure, the corresponding correlations may be underestimated and need replication. Finally, our diagnosed sample was not representative of people with mental illness in general. Rather, we recruited a convenience sample and factors such as ethnic minority status, male gender, and serious psychiatric disorders were over-represented; the same applies to the general public sample which was matched for gender, age, and ethnicity to the diagnosed group.

Despite these limitations, our study provides initial evidence that endorsing the Protestant ethic is associated with more negative attitudes to people with mental illness, among individuals with and without mental illness and including implicit guilt-related stereotypes among members of the public. Just world beliefs for self may help people with mental illness to better cope with discrimination, but may come at the price of increased implicit blame against people with mental illness. Our findings have implications for attempts to reduce public stigma in society

as well as self-stigma in people with mental illness. Future anti-stigma campaigns that aim to reduce public stigma [19, 52, 60] might want to address meritocratic worldviews that could maintain stigma in society, especially the notion of perceived responsibility of people with mental illness for their condition. Research suggests that worldviews can be primed. By activating a different worldview (e.g., in a public service announcement) that acknowledges both the role of factors outside an individual's control in shaping their outcomes and the ability of many people to successfully recover from a mental illness, corresponding shifts in attitudes and behavior could be anticipated. To the extent that people are repeatedly exposed to primes of an alternative worldview, that worldview would be expected to gain psychological potency. One area where these kinds of effects have been shown is in the domain of cultural worldviews (e.g., [21]). Still, it will be difficult to change worldviews that are deeply engrained in society. In our view, though, it would be realistic and helpful to achieve two more circumscribed aims. First, anti-stigma work could spread awareness that meritocratic worldviews may augment stigmatizing views, especially in terms of perceived responsibility of people with mental illness for their condition and thus reduce the automatic assumption that people with mental illness fall under the general rule that they deserve their fate. Second, the public could be informed that, similar to common views about persons with physical illnesses, individuals with mental illness do not deserve what they get.

Interventions to reduce self-stigma and its impact on people with psychiatric disorders, whether in group trainings run by professionals [24, 27], peer-support programs [5], or individual settings using narrative approaches [30, 39], could also take common worldviews into account and discuss their consequences for self-stigma among people with mental illness. Persons with mental illness may have internalized meritocratic worldviews which increases their vulnerability to internalize negative stereotypes about their own group. The effect of worldviews on attitudes toward others and oneself may operate openly, for example, in deliberately endorsed statements about blame, but also in more hidden and automatic ways, for example, in spontaneous or non-verbal behaviors [13, 17]. The latter type of reactions depends on more automatically activated associations, for example, between Mental Illness and Blame, which can be assessed by indirect measures such as the BIAT. Therefore, it may help to increase the collective awareness of the pernicious effects of these automatically activated reactions when addressing self-stigma. In summary, initiatives designed to reduce public or self-stigma face the difficulty that widely endorsed meritocratic ideologies may augment mental illness stigma both as endorsed in explicit statements and through automatically

activated associations, adding to the resilience of stigmatizing attitudes. Increased awareness of these cultural factors will help us to successfully tackle stigma in its many forms.

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