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## Automatically activated shame reactions and perceived legitimacy of discrimination: A longitudinal study among people with mental illness

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### Abstract

Perceived legitimacy of discrimination shapes reactions to mental illness stigma among stigmatized individuals. We assessed deliberately endorsed versus automatic shame-related reactions to mental illness as predictors of change in perceived legitimacy of discrimination over six months among 75 people with mental illness. Automatically activated shame-related associations with mental illness were measured using the Brief Implicit Association Test, deliberately endorsed beliefs via self-report. Controlling for depression and perceived stigma, stronger baseline automatic shame-related associations, but not deliberately endorsed beliefs, predicted higher perceived legitimacy of discrimination after six months. Automatically activated shame reactions may increase vulnerability to mental illness stigma.

### Keywords

Perceived legitimacy; stigma; discrimination; shame; Implicit Association Test; automaticity

## 1. INTRODUCTION

People with mental illness are among the most stigmatized groups in western societies (Corrigan, 2005; Hinshaw, 2007; Thornicroft, 2006). Perceived legitimacy of discrimination, or whether people with mental illness see discrimination against their group as fair, is a key determinant of personal reactions to stigma. Persons with mental illness who regard stigma as legitimate are more likely to internalize and less likely to fight stigma (Corrigan & Watson, 2002). Higher perceived legitimacy is associated with lower self-esteem, empowerment, and self-efficacy (Rüscha et al., 2006b; Watson et al., 2007), as well as more dysfunctional reactions

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to stigma, including lower participation in anti-stigma initiatives, poorer social performance, and greater social distance from other people with mental illness (Rüsch et al., 2009d). These findings are consistent with social psychological research on other stigmatized groups; i.e., the more disadvantaged individuals accept stigma as fair, the more they suffer from low self-esteem (Jost & Major, 2001). Despite strong evidence for the role of perceived legitimacy of discrimination in responses to stigma, its predictors among people with mental illness are currently unknown. A better understanding of such predictors will allow public anti-stigma initiatives as well as interventions addressing self-stigma among people with mental illness to focus their efforts on the most relevant target variables.

Emotional aspects of experiencing stigma have long been neglected (Link et al., 2004). Shame is a central emotion in response to stigma (Hinshaw, 2007; Schmader & Lickel, 2006) and is widespread among people with mental illness (Rüsch et al., 2007). Qualitative (Dinos et al., 2004) and quantitative (Birchwood et al., 2007; Rüsch et al., 2006a, 2009a) studies of people with mental illness have shown that shame is a central feature of internalized stigma and reactions to stigma. Shame-related stigmatizing beliefs about mental illness, if endorsed by stigmatized individuals, are therefore likely to be a vulnerability factor for accepting stigma as legitimate.

Individuals may automatically associate mental illness with shame, irrespective of whether they deliberately endorse the proposition that mental illness is shameful. Social psychological research has convincingly illustrated that automatically activated associations can differ from deliberately endorsed propositions (Gawronski & Bodenhausen, 2006; Greenwald & Nosek, 2009). Automatic reactions are typically characterized by rapidity, lack of conscious intention (spontaneity), minimal use of attentional resources (efficiency), lack of control over initial activation (inevitability), and a lack of awareness of triggering cues, the reaction to the cues or its consequences (implicitness; Bargh, 1994; Moors & De Houwer, 2006). Automatic reactions typically share many, but not necessarily all, of these characteristics. We therefore prefer the term 'automatic' over 'implicit' or 'unconscious' in this context, because it refers to different aspects of automaticity and is not restricted to the issue of awareness. In our study, automaticity implies that the concept of mental illness can automatically activate shame if these concepts are associated with one another in memory. This automatic activation of shame can occur whether or not the individual deliberately endorses the proposition that mental illness is shameful; and whether or not shame in relation to mental illness is consciously experienced by the person. This view of automaticity of emotion is consistent with recent work on implicit or unconscious aspects of emotional reactions (Barrett et al., 2005; Fiori, 2009).

Why is it important to study automatic versus deliberate shame-related reactions to mental illness? First, automatic versus deliberate reactions in general are often not aligned, and correlations between them are usually lower for attitudes or reactions related to topics with strong social desirability concerns, such as stigma or prejudice (Nosek, 2007). Because indirect measures of automatic reactions are less susceptible to strategic response distortions and self-presentational strategies, they are particularly helpful in work on stigma, where participants may hesitate to openly endorse stigmatizing statements. Second, automatic versus deliberate responses often independently predict outcome variables, again particularly in the domain of stigma (Greenwald et al., 2009). The current study therefore examined both automatic and deliberate shame-related reactions to mental illness as predictors of perceived legitimacy of discrimination, a key cognitive reaction to mental illness stigma. We expected these reactions to be modestly positively correlated (if at all; see Hofmann et al., 2005) and to differentially predict our criterion variable: change of perceived legitimacy of discrimination over six months.

Well-established reaction-time tasks such as the Implicit Association Test (Greenwald et al., 1998) measure automatically activated associations between two concepts (e.g., 'Mental Illness' and 'Shameful'), and thus index automatic shame-related associations with mental illness. Self-report measures, on the other hand, assess deliberately endorsed propositions. The present study examined whether automatic versus deliberate shame-related reactions to mental illness predict increased perceived legitimacy of discrimination over time among people with mental illness. We employed a conservative design, controlling for baseline levels of perceived stigma as well as depression.

## 2. METHODS

### 2.1. Participants

Eighty-five participants with mental illness were recruited from centers offering mental health services in the Chicago area in the context of a larger study on mental illness stigma (Rüsch et al., 2009a, 2009b, 2009c, 2009d, 2010a, 2010b). Seventy-five out of 85 subjects (88%) completed the follow-up assessment after six months, while ten could not be contacted or were not willing to participate. All participants provided written informed consent; the study was approved by the institutional review boards of the Illinois Institute of Technology and the collaborating organizations. An eighth grade reading level as assessed by the Wide Range Achievement Test (Wilkinson & Robertson, 2006) was required. Physical disabilities were an exclusion criterion to avoid confounds in the indirect (i.e., reaction-time) measure (described below) that used physical disability as a comparison category for mental illness. The 75 participants for whom we could collect baseline and follow-up data were on average about 44 years old ( $M=44.3$ ,  $SD=9.8$ ), had a mean of 13.6 years of education ( $SD=2.3$ ), and 69% of participants were male. More than half (56%) were African American, about a third (35%) were Caucasian, while a few reported Hispanic or Latino (5%), and mixed or other ethnicities (4%). Axis I diagnoses were made using the Mini-International Neuropsychiatric Interview (Sheehan et al., 1998) based on DSM-IV criteria. Eighteen (24%) participants had schizophrenia, 21 (28%) schizoaffective disorder, 27 (36%) bipolar I or II disorder, and 9 (12%) had recurrent unipolar major depressive disorder. In addition, 32 subjects (43%) had comorbid current alcohol- or substance-related abuse or dependence.

### 2.2. Self-report measures

Perceived legitimacy of discrimination can be defined as an individual's subjective perception that the lower status of his or her group within the social hierarchy is fair. It was assessed at baseline and after six months with three items adapted from Schmader and co-workers (2001; e.g., 'Do you think it is justified that people without a mental disorder have a higher status than people with a mental disorder?'), with higher scores reflecting more perceived legitimacy of discrimination (Cronbach's  $\alpha=.82$ ). The following predictor variables were measured at baseline. Deliberately endorsed shame-related beliefs regarding people with mental illness were assessed by a semantic differential item, scored 1 to 9 ("People with mental illness are proud ... shameful"), with higher scores indicating stronger shame-related beliefs about people with mental illness. To control for the level of individual exposure to stigma and discrimination, we assessed the perceived level of stigma against persons with mental illness in society using Link's (1987) 12-item Perceived Devaluation-Discrimination Questionnaire (Cronbach's  $\alpha=.85$ ), with higher scores reflecting more perceived stigma. Depression was measured using the 20-item Center for Epidemiologic Studies Depression Scale (Radloff, 1977), with higher scores indicating more depressive symptoms (Cronbach's  $\alpha=.92$ ).

### 2.3. Indirect measure

We used a computer-based response-latency measure, the Brief Implicit Association Test (BIAT; Sriram & Greenwald, 2009), to assess automatically activated associations between

mental illness and shame. This shorter version of the standard IAT (Greenwald et al., 1998) was utilized because we expected that more participants would complete the less extensive version of the task. It has been used among the same participants to assess automatic aspects of self-stigma (Rüsch et al., 2010a) and attitudes towards psychiatric medication (Rüsch et al., 2009e). Sriram and Greenwald (2009) provided details regarding the psychometric properties of the BIAT, which is similar to the standard IAT in terms of internal consistency, test-retest reliability, and convergent validity with appropriate self-report measures. The BIAT was similar to the standard IAT in detecting well-established automatic stereotypes, for which correlations with self-report measures tend to be small.

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 “Shameful” versus “Proud”. In the standard IAT, all four categories remain on the screen in both blocks (Mental Illness, Physical Disability, Shameful, Proud). The BIAT is different in that only two categories are shown on the screen at any one time (Mental Illness and Shameful in one block; Mental Illness and Proud in the other block); thus, three focal categories are employed within a given BIAT, whereas one category (Physical Disability) is never shown on the screen and therefore is referred to as a non-focal category (Sriram & Greenwald, 2009). Physical disability was the non-focal category in our BIAT. This design has the advantage of focusing participants' attention on the three focal categories, such that automatic associations with the non-focal category (Physical Disability) become less relevant. BIAT scores are therefore more straightforward to interpret because they reflect associations between focal categories and are less confounded by associations with the non-focal category than in the standard IAT.

The logic of the task is that verbal stimuli are classified more quickly during one block of trials when the target and attribute category pairings (e.g., Mental Illness/Shameful) match respondents' automatic associations with the target categories versus during the other block when the target and attribute category pairings are mismatched (e.g., Mental Illness/Proud). During the BIAT, a series of words was presented that either did or did not match one of the 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, and from each block the first four practice trials were excluded from analyses (for details, see Sriram & Greenwald, 2009). BIAT data with more than 30% errors were excluded from analyses (Teachman & Woody, 2003), resulting in 72 valid BIATs out of 75. 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), Shameful (shame, shameful, ashamed, disgrace), and Proud (pride, proud, prideful, dignity). The order of blocks within the BIAT was counterbalanced across participants. BIAT scores were calculated using the improved scoring algorithm, resulting in a *D*-score (Greenwald et al., 2003). Larger positive values represent a stronger automatic association between Mental Illness and Shameful.

### 3. RESULTS

To test our hypothesis, we calculated a multiple regression with the level of perceived legitimacy of discrimination after six months as the dependent variable. The five predictor variables (Table 1), all assessed at baseline, were not significantly interrelated except that perceived stigma in society was positively correlated with depressive symptoms ( $r = .36, p = .002$ ) and with deliberately endorsed shame-related beliefs about mental illness ( $r = .28, p = .01$ ). Further, perceived legitimacy of discrimination at baseline was positively correlated with deliberately endorsed shame-related beliefs ( $r = .25, p = .03$ ).

In the regression (Table 1), stronger automatic shame-related associations, but not deliberately endorsed shame beliefs, regarding mental illness at baseline predicted higher perceived legitimacy of discrimination after six months (Table 1), after controlling for baseline levels of perceived legitimacy of discrimination, perceived stigma, and depression. To control for the possible confound of diagnosis, we also included schizophrenia/schizoaffective disorder versus bipolar/unipolar affective disorder and presence versus absence of a current comorbid substance-related disorder as independent dummy-coded variables in subsequent regressions. None of the diagnoses predicted perceived legitimacy of discrimination at follow-up ( $p$ -values  $>.50$ ), whereas the previously significant predictors remained significant.

#### 4. DISCUSSION

Our results support the hypothesis that harboring shame-related negative associations regarding mental illness predicts increased perceived legitimacy of discrimination over time. Of note, this finding was independent of baseline levels of depression and of individually-perceived levels of public stigma. Further, our results were unrelated to diagnosis and therefore seem to apply to people with severe mental illness in general.

Interestingly, deliberately endorsed shame-related beliefs did not predict increased perceived legitimacy after six months. A possible explanation is offered by our finding that deliberately endorsed shame-related beliefs, but not automatic shame-related associations, were positively correlated with perceived legitimacy at baseline. Therefore, deliberately endorsed shame-related beliefs at baseline may already have affected baseline levels of perceived legitimacy of discrimination and thus would not exert any additional effects on perceived legitimacy over time. Automatic shame-related associations, on the other hand, could continue to affect perceptions of legitimacy and thus predict change over six months. Persons with mental illness who automatically associate mental illness with shame may therefore continuously interpret their discrimination as appropriate, i.e., as consistent with their cognitive schemata. This automatically guided interpretation could explain increased perceived legitimacy over time, independent of deliberately endorsed beliefs.

Limitations of our study should be noted. A larger sample size would have allowed structural equation modelling and a better understanding of the interrelation of variables. Future studies should investigate other predictors and the consequences of increased perceived legitimacy. Further, our conclusions are limited to persons with severe mental illness who participate in outpatient mental health services.

Despite these limitations, we found initial evidence that automatically activated shame may render persons with mental illness more vulnerable to accepting stigma as fair, thus decreasing the likelihood that they resist and fight stigma. This finding has implications for attempts to reduce the impact of stigma on people with mental illness, whether in group settings managed by professionals using cognitive-behavioral paradigms (Knight et al., 2006), in mutual-help groups led by consumers (Clay et al., 2005), or in individual settings that employ a narrative framework (Lysaker et al., 2007). Because automatically activated shame-related reactions to mental illness may have a pernicious long-term effect on stigmatized individuals, such initiatives could usefully focus on such automatic reactions. Possible approaches could be to increase awareness of shame-related reactions, to improve management of shame-reactions, and to help consumers to gradually replace these shame reactions with more positive emotional reactions toward themselves and other people with mental illness.

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Predicting perceived legitimacy of discrimination after six months among 75 people with mental illness

Table 1

Dependent variable	Independent variables (baseline)	$\beta$	T	P	$R^2$
Perceived legitimacy of discrimination (after six months)	Perceived legitimacy of discrimination	0.39	3.43	.001	.22
	'Mental Illness-Shameful' BIAT, D-score (a)	0.26	2.40	.019	
	Deliberately endorsed shame-related beliefs about people with mental illness (b)	-0.01	-0.10	.92	
	Perceived stigma (c)	0.03	0.27	.79	
	Depression (d)	0.09	0.80	.43	

(a) Brief Implicit Association Test (Sriram & Greenwald, 2009), higher scores indicating stronger automatically activated associations between Mental Illness and Shameful

(b) Likert-scale rating of "People with mental illness are proud ... shameful", higher scores indicating stronger deliberately endorsed shame-related beliefs

(c) Perceived Devaluation-Discrimination Questionnaire (Link, 1987)

(d) Center for Epidemiologic Studies Depression Scale (Radloff, 1977)