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Does understanding behavior make it seem normal?

Perceptions of abnormality among Euro-Australians and Chinese-Singaporeans

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### Abstract

According to recent research, abnormal behavior appears normal to the extent it is understood. Cultural differences in frameworks for making sense of abnormality suggest there may be variations in this 'reasoning fallacy'. In light of evidence that people from Western cultures psychologize abnormality to a greater extent than people from East Asian cultures, the effect of understanding on perceptions of abnormality was predicted to differ across cultures. Results of a cross-cultural questionnaire study indicated that understanding made behavior seem normal to European Australians ( $n=51$ ), consistent with the reasoning fallacy. For Singaporeans ( $n=51$ ), however, understanding did not influence the extent to which behavior was normalized, and made abnormal behavior more stigmatizing. Cultural variations in the effect of understanding were attributed to the differential salience of deviance frameworks, which are grounded in culturally specific conceptions of the person.

Recent research suggests that abnormal behavior is perceived as normal to the extent people find it easy to understand. In a now famous paper, Paul Meehl (1973) claimed that this type of thinking can be found among clinical psychologists. By way of illustration, Meehl told the story of T. Eugene Thompson, a man who murdered his wife for a million dollars in life insurance. According to Meehl, Thompson's psychologist argued, "I suppose if I knew enough about T. Eugene Thompson, like the way his wife sometimes talked to him at breakfast, I would understand why he did it" (p.244). According to Meehl, these comments imply that if T. Eugene Thompson's wife were "sometimes grumpy in the mornings...he would have been entitled to kill her" (p.244). Sanctioning deviant behavior on account of perceived insight into the psychological make-up of a deviant individual constitutes what Meehl terms a 'reasoning fallacy'.

Subsequent research by Ahn, Novick, and Kim (2003) demonstrates that this effect applies to clinicians and lay people alike. In a series of studies, their research showed that a person described with a checklist of symptoms (e.g., "Penny frequently suffers from insomnia. She also has trouble remembering the names of objects") is seen as more abnormal than a person described with the same checklist where the symptoms are linked with a clear causal narrative (e.g., "*because* Penny frequently suffers from insomnia *and is in a habitual state of sleep deprivation*, she has trouble remembering the names of objects").

### *Concepts of normality*

Whereas Meehl highlights the effect of understanding on perceptions of what could be termed *moral acceptability*, Ahn and colleagues' work involves an effect of

understanding on perceptions of *prevalence*. Judgments of prevalence and moral acceptability can both be seen as normality judgments. With regard to perceptions of prevalence, there is in fact a great deal of evidence to support the notion that explaining behavior will make it seem normal. For instance, the explanation effect in probability judgments demonstrates that the perception of what is likely to occur (e.g., the likelihood of a football team winning a game) is biased by the degree to which the hypothetical future outcome (e.g., the team's victory) has been explained or imagined (Sherman, Zehner, Johnson, & Hirt, 1983). Similarly, according to Kahneman and Tversky's simulation heuristic (1982) an uncertain outcome's likelihood is judged by the ease with which a scenario leading to it can be mentally simulated. Given that biased interpretations and selective attention to facts facilitate the ease with which behavior can be mentally simulated, ease of explanation and perceived prevalence are, in reality, unrelated. Thus the understanding-makes-it-normal phenomenon constitutes a reasoning fallacy.

Why does this phenomenon occur, and does understanding always have this effect? According to Meehl, behavior is normalized to the extent people see it as "dynamically understandable" (p. 20). By implication, understanding makes behavior seem normal when the perceiver experiences insight into the mental life of the deviant individual. The phenomenon would therefore seem to depend on a folk psychological explanatory style. When Ahn and colleagues liken the effect to the simulation heuristic, they too attribute the effect to folk psychological understanding processes. According to both accounts, the perceiver invokes belief/desire psychology – mentally simulating beliefs, desires, and intentions of the deviant individual – in order to make sense of their behavior. If this is true, there may be reason to wonder whether people from Western

cultures will be most susceptible to the ‘reasoning fallacy’. Research in social psychiatry shows that psychological understandings of deviance may be somewhat unique to this cultural setting (Kirmayer, 1988; Schmelkin, Wachtel, Schneiderman, & Hecht, 1988).

*Psychological and socio-moral idioms of distress*

There is a great deal of evidence that shows cultural differences in behavioral explanations offered by people from Western European and East Asian cultures. According to this research, people from collectivist cultures tend to rate external qualities as most defining of a person (e.g., handsome, polished, healthy) whereas members of individualist cultures tend to rate internal traits as most defining (e.g., dominant, distrustful, unscrupulous) (Choi, Nisbett, & Norenzayan, 1999). Just as there is cultural variation in the way normal, everyday behavior is explained, research in cultural psychiatry shows corresponding differences in explanations of abnormality. .

In Western cultures, mental illness is framed though a psychological ‘idiom of distress’, reflected in the prevalence of dynamically-oriented therapeutic strategies where patients are encouraged to express distress with reference to internal mood states, conflicts, and desires. According to Kirmayer (1988), this form of expression involves explicit references to theories of mind, self and emotion and presumes “autonomy, individuality, self-reflexivity, expressiveness and a private rhetoric of motives” (p.330). Within this idiom of distress abnormality is seen as psychological dysfunction and individual irrationality. If irrationality is the basis on which behavior is judged to be abnormal, making disordered behavior seem rational through a psychological

understanding of the core conflicts and desires producing it may be a means by which order is restored to disorder.

Whereas the psychological idiom is favored in the Western cultural setting, extensive ethnographic evidence shows that people from East Asian cultures tend to frame mental disorder through socio-moral or somatic distress idioms (Kirmayer, 1989; Ryder et al., 2008). Through a socio-moral idiom, distress is perceived as the individual manifestation of larger social unrest. As the concept of the person in East Asian cultures subordinates the individual to the larger whole (Chu, 1985; Smith, 1983), individual distress is perceived as the expression of changing social conditions such as the erosion of traditional values that modernization brings (Kirmayer, 1989, p. 331).

Through a “somatic” idiom, the bodily expression of distress becomes the focus of complaint (e.g., Kirmayer, 1989; Kleinman & Good, 1985; Ryder et al., 2008). In a cultural context where social concerns are prioritized over individual needs, bodily expression of distress may provide an outlet for socially undesirable psycho-social distress which would may be perceived as “decadent individualism” if expressed in other ways (Kleinman & Kleinman, 1995; Lee, 1998). Therapeutic techniques used in this context reflect these concerns, urging patients to adjust their behavior to the demands of the situation in a way that draws attention away from their internal psychological state (Kirmayer, 2007). This literature shows that cultural variations in concepts of mind, self, and the person render certain characteristics more relevant than others for identifying deviance (Shweder & Miller, 1985).

*The effect of understanding on perceived normality*

Given that Westerners are expected to psychologize to a greater extent than East Asians it is predicted that understanding is more likely to have a normalizing effect on behavior for Westerners than for East Asians. In the Western European cultural context it is predicted that understanding will make behavior seem prevalent by way of the perceiver simulating mental states – desires and beliefs – of the deviant individual in order to uncover the hidden desires and beliefs that drive their behavior. In line with the simulation heuristic, to the extent the perceiver finds this simulation easy they will judge the behavior to be common (Kahneman & Tversky, 1982). Given that a cluster of behaviors is no more or less prevalent in the general population with the addition of causal background information this kind of thinking constitutes a reasoning fallacy (Ahn et al., 2003).

Although the link between belief-desire psychology and the perception of prevalence is fairly well established, the influence of psychological understanding on moral accountability has not been so well documented. Nevertheless there are findings which suggest that a deviant individual may seem morally blameless through a psychological framework. Research by Malle (2006) indicates that moral judgment is strongly linked with belief-desire psychology and perceived intentionality. Psychological understandings of deviant behavior in terms of underlying beliefs and desires that the deviant individual is not aware of may confer moral acceptability by undermining the view that the individual is a free agent, consciously choosing to behave in a deviant manner. Haslam's (2005) theory of Folk Psychiatry builds on this notion. According to this theory, behavior is moralized when the deviant individual is seen as having behaved

intentionally, that is, with subjective awareness of the reasons for their behavior and a perception that their behavior will bring about their intention. Haslam's theory states that deviant behavior can be defined as psychologized when the opposite is true, namely, when the deviant individual is not aware of the reasons underlying their behavior and sees no causal link between their behavior and their intentions. The theory therefore states explicitly that the perception of moral culpability may be undermined by psychological explanation.

Given that psychological understandings of deviance are not seen as prevalent in the East Asian context, it is predicted that understanding will have less bearing on whether behavior seems normal, in the sense of morally excusable or common. When it comes to moral judgment in this cultural context there is evidence that belief-desire psychology may not set the standard of morality so much as societal protection (Hamilton, 1992; Miller & Bersoff, 1992). Consistent with research on the socio-moral idiom of distress, in East Asian contexts a person may be deemed abnormal to the extent their behavior violates relational norms (Triandis & Suh, 2002). Given that people with East Asian cultural backgrounds are said to have an interdependent concept of the person, the extent to which behavior complies with social rules and relational norms may be more morally relevant than psychological qualities of the deviant individual (e.g., their character or their intentions).

Although not explored in the research conducted by Meehl (1973) and Ahn et al. (2003), the understanding-makes-it-normal phenomenon may also extend to psychological stigma. If belief-desire psychology sets the standard of morality, people should be less inclined to stigmatize to the extent they feel a subjective sense of



understanding. If belief-desire psychology does not set the standard of morality, psychological understanding should do little to rectify the stigma attached to socially undesirable deviant behavior. It is therefore predicted that understanding will have a greater ameliorative effect on stigma in the Western context. Given that increased understanding is often as a means of eradicating stigma, cultural differences here might suggest the need for culturally diverse anti-stigma strategies.

In sum, we hypothesized that there would be differential effects of understanding on the perceived prevalence, moral responsibility and stigma associated with abnormal behavior across cultural groups. Specifically, we hypothesized that providing causal information (i.e., understanding) about abnormal behavior would increase perceived prevalence and decrease perceived moral responsibility and stigma only among Western participants. We also predicted that people from East Asian backgrounds would moralize deviance to a greater extent, mediated by their greater concern with traditional social values, consistent with their use of a social-moral idiom of distress.

To examine Western European and East Asian cultural tendencies, samples of participants were recruited from Australia and Singapore, respectively. All Australian participants were of European origin and all Singaporean participants were of Chinese origin, as measured by place of birth, self-reported nationality, and nationality of their mother and father. Although these are clearly not representative samples of East Asian and Western European culture, Singaporeans have been shown to demonstrate more externally oriented, (i.e., somatic) than psychological attributions when explaining psychiatric abnormality (Balla, 1982), whereas Australians tend to explain mental illness with regard to psychological attributes (Parker, Cheah, & Roy, 2001).

Similar to the methodology used by Ahn and colleagues (2003), participants were asked to rate a vignette featuring either causal or non-causal information. In the non-causal condition participants received a list of behaviors describing a person with a concluding statement explaining that the behaviors should not be seen as causally related. In the causal condition participants received the same descriptive list but with sentences linking each behavior so that a causal chain was formed. If understanding makes behavior seem normal, descriptions featuring causal information should be seen as more “normal” than descriptions that do not feature causal information.

Whereas participants in Ahn and colleagues’ studies were asked to rate normality on a single item (“how normal the person is”), the present study measured multiple aspects of normality. Specifically, it examined whether a description of abnormal behavior featuring causal information was judged to be more common and morally acceptable than a description of behavior that did not feature causal information. Abnormal behaviors were based on the diagnostic criteria of two mental disorders. Similar to the methodology used by Ahn et al., vignettes featuring abnormal behaviors included either a “life event” or “brain abnormality” stem sentence.

## Method

### *Participants*

Participants were sampled from Australia and Singapore. Australian participants ( $n=51$ ) were recruited from the University of Melbourne and Singaporean participants (of Chinese descent) ( $n=51$ ) from the National University of Singapore. All participants were undergraduate psychology students who took part in the study as part of a course

requirement. The mean age of participants was 21.0 years ( $SD = 4.95$ ) (range =17-48 years). Across the two samples, the gender distribution differed, with 42 males and 11 females in the Singaporean sample and 11 males and 42 females in the Australian sample. In light of this, the interaction between culture and gender was explored.

### *Measures*

In each condition, participants received a questionnaire featuring either causal or non-causal behavioral descriptions. In each condition, participants received two vignettes in random order, one featuring internalising behaviors and the other externalizing behaviors.

Each behavioral description was based on diagnostic criteria of disorders taken from the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (i.e., Major Depressive Disorder in the internalizing condition and Antisocial Personality Disorder in the externalizing condition) (APA, 1994). In line with the methodology used by Ahn et al. (2003), participants in the non-causal condition received a list of behavioral features (e.g., “J.K. was severely abused as a child. He regularly gets drunk and is aggressive towards others”) with a concluding statement explaining that the features were causally unrelated (i.e., “These characteristics are completely separate aspects of who [this person] is. One characteristic does not cause another”). In the causal condition participants were given a vignette featuring items of behavior that were linked by a causal chain (e.g., “J.K. was severely abused as a child. *Because of ongoing issues arising from this* he regularly gets drunk and is aggressive towards others”).

Similar to the methodology used by Ahn et al. (2003), each disorder featured either a life-event stem sentence (e.g., “J.K. was severely abused as a child”) or a brain-abnormality stem sentence (e.g., “J.K. has problem in the reticular formation”). Administration of vignettes featuring these two stem sentences was counterbalanced so that equal numbers of participants received an internal disorder with life-event stem, an internal disorder with brain-abnormality stem, an external disorder with a life-event stem, and an external disorder with a brain-abnormality stem. The order of presentation was counterbalanced so that equal numbers of participants received these vignettes in first or second place.

Participants were then administered a 12-item Level of Contact Report (Holmes, Corrigan, Williams, Cancar, & Kubiak, 1999) to measure their familiarity with the DSM behaviors. Given that research has repeatedly demonstrated effects of familiarity on attitudes towards mental disorder (Holmes et al., 1999; Jorm, 2000; Rabkin, 1981) the Level of Contact Report was included to rule out the effects of cultural familiarity as an alternative explanation for the tendency to normalize. Items on this scale include, “I have observed a person like this frequently”, “I have worked with people like this”, “My relative is like this” and “I am like this”. Participants rated items on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

In order to measure how common the behavior was perceived to be, participants were asked, “In the general population, how many people out of 1000 do you believe are like this?” In order to measure perceived moral acceptability, participants were asked to rate the extent to which they held the person responsible for their behavior on a scale from 0 (*not at all*) to 100 (*very much*). Following this, stigmatizing attitudes were

measured using a scale developed by Taylor and Dear (1981). It includes subscales assessing *desire for social distance* (the extent to which social contact with sufferers is seen as desirable), *authoritarianism* (the extent to which harsh, punitive measures towards the mentally ill are seen as warranted), *benevolence* (the extent to which the mentally ill are seen as worthy of care), and *social restrictiveness* (the extent to which sufferers are seen as integrated members of the community). Participants rated items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Finally, traditional social values were measured using the Traditionalism subscale from Schwartz's Values Circumplex (1992). Participants were provided with a list of values and asked to rate the extent to which each represented a guiding principle in their lives. These values were "social order" (stability of society), "respect for tradition" (preservation of time-honoured customs), "self-discipline" (self-restraint, resistance to temptation), "moderate" (avoiding of extremes of feeling or action), and "obedient" (dutiful, meeting obligations). Each value was rated on a scale from 7 (*Of supreme importance*) to -1 (*Opposed to my values*).

## Results

Preliminary analyses indicated that all scales had acceptable reliability (Familiarity:  $\alpha = 0.83$ ; Traditionalism:  $\alpha = 0.83$ ; Social Distance:  $\alpha = 0.80-0.84$ ; Social Restrictiveness:  $\alpha = 0.76-0.77$ ; Benevolence:  $\alpha = 0.87-0.88$ ; Authoritarianism:  $\alpha = 0.55-0.77$ ).

### *Prevalence*

Preliminary analyses revealed that prevalence was not normally distributed. Therefore a log linear transformation was applied. Before testing the predicted culture  $\times$  causal manipulation interaction, a series of mixed-design ANOVAs were conducted in order to rule out the effects of familiarity, gender, order (Internalizing/ Externalizing and Externalizing/ Internalizing First) and stem (Life-event and Brain-abnormality) on prevalence ratings. The results show effects of gender,  $\lambda = 0.94$ ,  $F(2, 98) = 3.13$ ,  $p = 0.04$ ,  $\eta^2 = 0.03$ , and order,  $\lambda = 0.80$ ,  $F(2, 98) = 12.17$ ,  $p < 0.01$ ,  $\eta^2 = 0.17$ , but no effects of stem,  $\lambda = 0.99$ ,  $F(2, 98) = 0.37$ ,  $p = 0.69$ ,  $\eta^2 < 0.01$ , and familiarity,  $\lambda = 0.43$ ,  $F(2, 98) = 1.39$ ,  $p = 0.12$ ,  $\eta^2 = 0.01$ , on prevalence ratings. In light of these findings, gender and order were included in the mixed-design ANOVA testing the predicted interaction between culture and the causal manipulation.

A 2 (Culture: Australian and Singaporean)  $\times$  2 (Cause: causal vs. non-causal manipulation)  $\times$  2 (Condition: internalizing vs. externalizing)  $\times$  2 (Gender: male vs. female)  $\times$  2 order (Internalizing first vs. second) mixed-design ANOVA was then conducted on prevalence ratings. Most importantly, the predicted interaction between culture and the causal manipulation was found,  $\lambda = 0.93$ ,  $F(2, 84) = 3.08$ ,  $p = 0.05$ ,  $\eta^2 = 0.05$ . There were additional effects that did not affect our interpretation of the culture  $\times$  causal manipulation interaction. There was a significant effect of order,  $\lambda = 0.84$ ,  $F(2, 84) = 8.08$ ,  $p < 0.01$ ,  $\eta^2 = 0.15$ , where people who received the internalizing disorder first ( $M = 1.78$ ) rated the behavior as more prevalent than people who received the externalizing disorder first ( $M = 1.61$ ), and an interaction between order and the causal manipulation,  $\lambda = 0.93$ ,  $F(2, 84) = 3.03$ ,  $p = 0.05$ ,  $\eta^2 = 0.03$ , where people in the causal

condition gave higher prevalence ratings when they received the internalizing disorder first ( $M = 1.75$ ) than people who received the externalizing disorder first ( $M = 1.46$ ).

In order to provide greater insights into the culture  $\times$  causal manipulation interaction effect, separate analyses were conducted for internalizing and externalizing conditions. They also showed significant culture  $\times$  causal manipulation interactions in both the internalizing,  $F(1, 84) = 5.95, p = 0.01, \eta^2 = 0.08$ , and externalizing,  $F(1, 84) = 3.75, p = 0.05, \eta^2 = 0.03$ , conditions (see Table 1). In the internalizing condition, Australians who received the causal information rated the behavior to be more prevalent than those who did not,  $t(49) = 1.88, p = 0.05, d = 0.54$ . By contrast, Singaporeans who received causal information rated the behavior to be *less* prevalent than those who did not receive causal information,  $t(49) = 2.39, p = 0.02, d = 0.68$ . In the externalizing condition, Australians who received the causal information rated the behavior to be marginally more prevalent than those who did not receive the causal information,  $t(48) = 1.91, p = 0.06, d = 0.55$ . No significant effect was found for Singaporeans in the externalizing condition,  $t(49) = 1.33, p = 0.19, d = 0.38$ .

### *Moral responsibility*

As with the analysis of prevalence ratings, a series of mixed-design ANOVAs were conducted in order to rule out the effects of familiarity, gender, order, and stem on moral responsibility. Again, in line with the hypotheses, there was an interaction between culture and cause,  $\lambda = 0.98, F(1, 96) = 3.88, p = 0.05, \eta^2 = 0.04$  (see Table 1). There were additional effects that did not influence our interpretation of the above interaction effect. There was an effect of condition,  $\lambda = 0.69, F(1, 96) = 41.45, p < 0.01, \eta^2 = 0.30$ ,

whereby people displaying externalizing behaviors ( $M = 68.99$ ) were held morally responsible to a greater extent than people displaying internalizing behaviors ( $M = 55.99$ ). An interaction between condition and culture was found,  $\Lambda = 0.91$ ,  $F(1, 96) = 3.88$ ,  $p = 0.04$ ,  $\eta^2 = 0.04$ , indicating that Singaporeans ( $M = 128.85$ ) held the person morally responsible to a greater extent than Australians ( $M = 104.79$ ) in the externalizing condition,  $t(100) = 1.99$ ,  $p = 0.04$ ,  $d = 0.40$ . There was no interaction between culture and gender,  $\Lambda = 0.99$ ,  $F(1, 92) = 0.08$ ,  $p = 0.78$ ,  $\eta^2 < 0.01$ .

Again, to shed further light on the culture  $\times$  causal manipulation interaction effect, separate analyses were conducted and showed significant interactions in the internalizing,  $F(1, 96) = 4.76$ ,  $p = 0.03$ ,  $\eta^2 = 0.05$ , and externalizing,  $F(1, 96) = 3.86$ ,  $p = 0.05$ ,  $\eta^2 = 0.03$ , conditions. In the internalizing condition, Australians who received the causal information rated the person to be less morally responsible than those who did not receive the causal information,  $t(48) = 2.48$ ,  $p = 0.01$ ,  $d = 0.72$  but there was no difference for the Singaporeans,  $t(48) = 0.39$ ,  $p = 0.69$ ,  $d = 0.11$ . In the externalizing condition, Australians who received the causal information rated the person to be less morally responsible than those who did not receive the causal information,  $t(49) = 2.06$ ,  $p = 0.04$ ,  $d = 0.59$ , but again the Singaporeans did not,  $t(49) = 0.38$ ,  $p = 0.97$ ,  $d = 0.11$ .

### *Stigma*

There were four stigma scales used in each condition (Internalizing and Externalizing). A mixed-design ANOVA was conducted with the four stigma measures as repeated measures with condition (Internalizing and Externalizing) as a within-subjects variable. As with the previous analyses, preliminary tests were conducted to rule out the



effects of familiarity, gender, order (Internalizing first or second) and stem (Life-event and Brain-abnormality) on stigma. Results of these analyses showed a multivariate effect of gender ( $\lambda = 0.83$ ,  $F(3, 98) = 6.73$ ,  $p < 0.01$ ,  $\eta^2 = 0.20$ ). No significant effects were found for order ( $\lambda = 0.99$ ,  $F(3, 98) = 0.33$ ,  $p = 0.80$ ,  $\eta^2 < 0.01$ ), familiarity ( $\lambda = 0.14$ ,  $F(3, 98) = 0.94$ ,  $p = 0.65$ ,  $\eta^2 = 0.01$ ), or stem ( $\lambda = 0.95$ ,  $F(3, 98) = 1.72$ ,  $p = 0.17$ ,  $\eta^2 = 0.05$ ). Given these results, gender and order were then included in testing the predicted interaction between culture and the causal manipulation.

A 2 (Culture: Australian vs. Singaporean)  $\times$  2 (Cause: causal vs. non-causal manipulation)  $\times$  2 (Gender: male vs. female)  $\times$  2 (Condition: internalizing vs. externalizing)  $\times$  4 (Stigma: four subscales) ANOVA was conducted on the stigma measures. Examination of the results shows a multivariate effect of stigma ( $\lambda = 0.18$ ,  $F(3, 92) = 38.76$ ,  $p < 0.01$ ,  $\eta^2 = 0.81$ ), an interaction between stigma and gender ( $\lambda = 0.44$ ,  $F(3, 92) = 2.61$ ,  $p = 0.02$ ,  $\eta^2 = 0.04$ ), and an interaction between stigma and culture ( $\lambda = 0.89$ ,  $F(3, 92) = 3.62$ ,  $p = 0.01$ ,  $\eta^2 = 0.23$ ). However there was a very large between-subjects effect of culture,  $F(1, 94) = 12.04$ ,  $p < 0.01$ ,  $\eta^2 = 0.50$ , showing that Singaporeans ( $M = 3.38$ ) stigmatize to a greater extent than Australians ( $M = 2.69$ ). Post-hoc t-tests showed that Singaporeans scored higher on every stigma scale except Social Distance (see Table 2). There was no interaction between culture and cause ( $\lambda = 0.96$ ,  $F(3, 85) = 1.26$ ,  $p = 0.29$ ,  $\eta^2 = 0.02$ ).

### *Traditionalism*

Finally, an independent-samples t-test was conducted on the traditionalism subscale of Schwartz's Value Circumplex (1992). In line with the hypothesis, Singaporeans ( $M =$

6.92) were more likely to endorse traditional social values than Australians ( $M = 5.89$ ),  $t(100) = 3.68, p < 0.01, d = 0.74$ ). A mediation analysis was conducted to examine whether endorsement of traditional social values explains the Singaporean tendency to moralize. Results of this analysis indicate partial mediation (Sobel  $Z = 2.31, p = 0.02$ ) (see Figure 1), with the effect of culture on moralizing remaining significant after the addition of traditionalism.

## Discussion

The central predictions of the current study were supported. Australians perceived abnormal behavior to be more common and morally acceptable in the causal condition, where the behavior was made more understandable, but Singaporeans did not. Despite research by Ahn and colleagues (2003) showing that behavior with a life-event first cause is judged to be more normal than behavior with a brain abnormality first cause, the present study shows no difference between life-event and brain abnormality first causes on perceptions of abnormality. For example, brain abnormality explanations were not associated with greater stigma than life-event explanations, contrary to some previous findings (Read, Haslam, Sayce, & Davies, 2006). In addition, abnormality judgments were not influenced by familiarity with mental illness.

Although a further study is necessary in order to establish that it is in fact psychologizing which underlies the normalization effect, the current study provides some support for this idea. In the causal condition, each manipulation featured a behavioral explanation of a type that Malle (1999) terms “causal history of reasons”. Explanations of this kind refer to the context, background, and origin of a person’s intentional states.

According to Haslam's theory of Folk Psychiatry (2005), these explanations are psychological when used to explain psychiatric phenomenon. Given that psychological explanations led only Australians to perceive abnormal behavior as common and morally acceptable, it would seem that psychological explanations do not have a normalizing effect for Singaporeans.

For Singaporeans, the causal manipulation not only failed to have a normalizing effect on ratings of moral acceptability it, but made Internalizing behavior seem *less* prevalent. Although this finding was not predicted, it can be explained by research on cultural differences in the symptom presentation of depression (Kleinman & Good, 1985; Ryder et al., 2008). According to this research, people from Chinese cultures tend to emphasize somatic (i.e., bodily complaints) rather than psychological (e.g., feelings of hopelessness) symptoms of depression. Given that vignettes in the causal condition were constructed using psychological language, this type of symptom presentation may have been seen as unusual for Chinese-Singaporeans.

Significant effects of order were also found for judgments of prevalence such that participants who rated Major Depressive Disorder (MDD) first gave higher prevalence ratings than participants who rated it second. Given that Anti-Social Personality Disorder is a more severe disorder than MDD, participants who rated Anti-Social PD first may have been primed to read the vignettes through a more pathological lens than participants who rated MDD first.

In terms of stigma, Singaporeans expressed fewer benevolent attitudes more desire for social distance (in the externalizing condition only), and endorsed more authoritarian attitudes and social restrictiveness beliefs. Singaporeans also endorsed more

traditional social values and, in line with the hypothesis, cultural differences in moral responsibility were mediated by such values. These findings support research in cultural psychiatry showing that, in this cultural context, abnormal behavior is judged according to social or moral criteria, whereby the behavior itself and its social impact are of principal relevance. As a consequence, behavior which violates rules, conventions, and social mores may be seen as uncommon and unacceptable, morally, regardless of its psychological comprehensibility.

Although the findings lend themselves to an interpretation such as this, further research is needed to examine whether it is social values rather than mental state imputation (i.e., intention or lack thereof) that is driving judgments of abnormality in the Singaporean context. Previous research shows that severe mental illness is less stigmatized in developing (and often collectivist) countries when people remain a contributing member of the community (Cooper & Sartorius, 1977). It may be that there is a similar phenomenon present in the Singaporean or East Asian context. By way of examining this, a future study could present participants with vignettes where the social ramifications of the behavior are manipulated. Manipulated information might include holding down a job, maintaining relationships and being of service to the community.

Building on the present study, it would be interesting to examine the extent to which specific content of the current vignettes produced abnormality judgments. In the externalizing condition there are of course many references to anti-social behavior (i.e., “he is aggressive towards others”) and in the internalizing condition there is reference to behavior which fails to comply with social expectation (i.e., “he has stopped going to work”). Given that both vignettes in the current study make reference to socially

disruptive behavior, future research should examine whether references such as these underlie abnormality judgments in the Singaporean context.

Another issue for future research is to address the limitations of the current study's sample. Given that our central prediction relates to psychologizing tendencies, it is clearly not ideal to have a sample of participants taken from undergraduate psychology courses. Despite the fact that academic training cannot account for cultural differences in psychologizing tendencies as all participants had received similar levels of psychological training, future studies should nevertheless aim to replicate the current study's findings with people who have no background in the study of psychology. Future studies should also aim to have a more even gender distribution across cultural groups and extend the range of cultural groups explored beyond Australia and Singapore.

Finally, future research could improve upon the vignette methodology used in the current study. Presenting participants with de-contextualized descriptions of strangers may not reflect the real-life situation of encountering a person with a mental disorder. The unrealistic nature of the task may influence judgments of prevalence in particular, such that ratings in the non-causal condition may reflect the unlikelihood of a person having a list of symptoms which are in no way causally related. Although this does not explain the cultural differences found, future studies would no doubt benefit from the scenarios being as realistic as possible. In addition to this, it may be possible to move beyond the vignette methodology and explore the understanding-makes-it-normal effect through techniques involving psychological simulation (i.e., asking people to imagine possible explanations for behavior) (Kahneman & Tversky, 1982; Sherman, Zhner, Jonson & Hirt, 1983).

Overall, the current study demonstrates cultural differences in the effect of understanding on judgments of normality. In the Western cultural context, abnormality may be equated with irrational psychological functioning. If deviance is equated with irrationality, understanding can make a disorder seem normal by bringing a sense of order back to disorder or, put another way, by making the irrational seem rational again. In the East Asian context, deviance may not be identified by irrational mental states so much as violations of social obligation. This being the case, the normative status of deviant behavior will remain unchanged by an understanding of the deviant individual's underlying motives.

Different frameworks for interpreting deviance make sense in the light of cultural variation in person conceptions. While a psychologizing idiom makes sense in Western culture where the person is conceived as a "bounded, unique, more or less integrated motivational and cognitive universe" (Geertz, 1984, p.126) it does not make sense in the East Asian context, where "the boundary between the person and situation is rather porous and ill-defined" (Choi, Nisbett & Norenzayan, 1999, p.57). The results of the current study suggest that cultural variations in person conceptions (i.e., conceptions of the *normal* person) give rise to corresponding variations in conceptions of abnormality.

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Table 1

*Mean (SD) Ratings of Australians and Singaporeans on Prevalence and Moral*

*Responsibility as a Function of Causal Information*

<u>Dependent measure</u>	<u>Australians</u>	<u>Singaporeans</u>
<u>Prevalence</u>		
Overall		
Causal	2.04 (0.11)	1.43 (0.08)
Non-causal	1.77 (0.11)	1.76 (0.11)
Internalizing condition		
Causal	2.11 (0.11)	1.37 (0.11)
Non-causal	1.82 (0.11)	1.80 (0.11)
Externalizing condition		
Causal	1.96 (0.10)	1.49 (0.04)
Non-causal	1.71 (0.10)	1.72 (0.11)
<u>Moral Responsibility</u>		
Overall		
Causal	51.74 (5.13)	64.36 (4.94)
Non-causal	69.40 (4.98)	62.90 (5.18)
Internalizing condition		
Causal	47.20 (5.55)	55.61 (5.33)
Non-causal	68.23 (5.33)	52.92 (5.55)
Externalizing condition		
Causal	56.28 (4.72)	73.11 (4.55)
Non-causal	70.57 (4.63)	72.88 (4.82)

Table 2

*Mean (SD) ratings of Australians and Singaporeans on Stigma Scales*

<u>Stigma scale</u>	<u>Australians</u>	<u>Singaporeans</u>
<b>Social Distance</b>		
Internalizing condition	3.79 (0.99)	4.11 (1.01)
Externalizing condition	2.38 (0.94)	2.78 (1.03)
<b>Authoritarianism</b>		
Internalizing condition	2.21 (0.69)	3.03 (0.83)
Externalizing condition	2.81 (0.97)	3.93 (1.00)
<b>Social Restrictiveness</b>		
Internalizing condition	2.16 (0.84)	2.98 (0.92)
Externalizing condition	3.21 (0.96)	3.89 (1.04)
<b>Benevolence</b>		
Internalizing condition	2.09 (0.88)	2.47 (0.88)
Externalizing condition	2.94 (1.06)	3.87 (1.19)

## Figure Caption

*Figure 1.* Mediation analysis showing that the effect of culture on moralizing is partially mediated by traditionalism

