

The Effects of a Documentary Film About Schizophrenia on Psychiatric Stigma

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Abstract

This study examined whether viewing a documentary that depicts individuals with schizophrenia can reduce psychiatric stigma. One hundred and sixty-three individuals were randomly assigned to one of four conditions: no documentary film, documentary about polar bears, documentary about fears of being overweight, and documentary about schizophrenia. Participants also completed a battery of tasks assessing attitudes toward persons with schizophrenia, attributions about the disorder, and intentions to interact with individuals with schizophrenia. The findings showed that compared to the other experimental conditions, the documentary about schizophrenia resulted in more benign attributions about schizophrenia (e.g., less likely to blame individuals with schizophrenia for the disorder) but did not change general attitudes about schizophrenia (e.g., perceived dangerousness). The film also did not increase participants' intentions to interact with persons with schizophrenia. These findings could not be attributed to mood changes associated with the film or how much participants liked the film. The findings provide partial support for the hypothesis that a media depiction of persons with schizophrenia can reduce stigma.

Keywords: Stigma, schizophrenia, education, documentary film.

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Individuals with a severe mental illness (SMI) such as schizophrenia experience significant stigma in their day-to-day lives (Hayward and Bright 1997; Farina 1998; Corrigan and Penn 1999). According to Link and Phelan (in press), stigma comprises four components: (1) a group of individuals are labeled and distinguished from other groups; (2) dominant cultural beliefs result in the linking of the labeled persons to undesirable characteristics (i.e., negative stereotypes); (3) the labeled persons are placed into distinct categories, which results in a separation of

“ingroups” from “outgroups”; and (4) the labeled persons experience discrimination and status loss that lead to negative consequences (in terms of housing, income, etc.).

This definition is consistent with the stigmatization experienced by persons with SMI, as they are stereotypically viewed as dangerous, unpredictable, irresponsible, and, sometimes childlike (Brockington et al. 1993; Levey and Howells 1995; Crisp et al. 2000). These views and attitudes may be related to the use of pejorative labels (e.g., “schizophrenic”; Farina 1998), observation of the odd behaviors often associated with SMI (e.g., talking to oneself; Penn et al. 2000), and biased depictions of mental illness by the media (Wahl 1995; Wilson et al. 2000). Such stigmatization has a number of pernicious consequences for persons with SMI, including reduced housing and work opportunities (Page 1977, 1995; Link 1987; Manning and White 1995), lowered quality of life (Mechanic et al. 1994), reduced self-esteem (Wright et al. 2000), and increased symptoms and stress (Link et al. 1997; Markowitz 1998). Therefore, psychiatric stigma poses a significant threat, beyond the illness itself, to the assimilation into society of persons with SMI.

In an effort to reduce stigmatization of persons with SMI, a number of interventions have been attempted. These include protesting/suppressing negative attitudes, promoting contact between members of the community and persons with SMI, and educating the public (reviewed in Corrigan and Penn 1999). Protesting/suppressing involves asking and/or demanding that individuals not use negative mental illness stereotypes when referring to persons with SMI. Research suggests that this approach risks untoward “rebound” effects, increasing rather than suppressing the stereotype (reviewed in Monteith et al. 1998). In fact, stereotype suppression has had a mixed impact on psychiatric stigma (Corrigan et al. 2001; Penn and Corrigan, in press).

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Promoting interpersonal contact and educating the public about psychiatric stigma have shown more promise than suppressing stereotypes has. In general, the findings suggest that both approaches reduce stigma, with the effects of contact being especially robust (Link and Cullen 1986; Nosse 1993; Roessler and Salize 1995; Ingamells et al. 1996; Kolodziej and Johnson 1996; Chung et al. 1997; Arikian and Uysal 1999; Corrigan et al. 1999, 2001; Holmes et al. 1999; Penn et al. 1999; Read and Law 1999; Penn and Nowlin-Drummond 2001; for exceptions, see Weller and Grunes 1988; Reda 1996; Arkar and Eker 1997). The effects of contact on psychiatric stigma parallel the positive findings of contact on attitudes toward other stigmatized groups, such as individuals who are obese (Madey and Ondrus 1999), have AIDS (Herek and Capitanio 1997), or are gay (Herek and Capitanio 1996). Therefore, greater interpersonal contact is associated with stigma reduction, although how much contact is necessary to reduce stigma is unknown.

Along the same lines, there is fairly consistent support for work showing that providing education about mental illness has a positive effect on psychiatric stigma (reviewed in Mayville and Penn 1998; Penn and Martin 1998; Corrigan and Penn 1999). Such education has been effectively used in various formats, ranging from "brief fact sheets" and disclaimers (e.g., Wahl and Lefkowitz 1989; Penn et al. 1994, 1999; Thornton and Wahl 1996) to more extensive educational interventions in the form of courses on mental illness that aim to dispel negative and/or inaccurate stereotypes (e.g., Morrison and Teta 1978, 1980; Morrison et al. 1980; Keane 1990; Shera and Delva-Tauiiili 1996; Holmes et al. 1999; Corrigan et al. 2001). These results indicate that providing factual information that addresses misconceptions about persons with SMI may reduce stigma.

The positive effects of interpersonal contact and public education on psychiatric stigma are tempered by an obvious logistical problem: Not everyone has the time, opportunity, or willingness to participate in lengthy courses on mental illness or have direct contact with an individual with SMI. Therefore, the effectiveness of these tools for reducing psychiatric stigma may be limited, because of their inability to reach a large number of individuals in a cost-effective manner. This potential weakness can be addressed, however, by utilizing methods to promulgate information about SMI to a large audience while at the same time providing a "proxy" for direct personal contact. As will be discussed below, we believe that this can be achieved via the media, particularly the film media (also discussed in Salter and Byrne 2000).

The media has generally depicted persons with SMI in a negative light. Persons with SMI are disproportionately portrayed in films, television shows, and newspa-

pers as violent, erratic, and dangerous (Steadman and Cocozza 1978; Gerbner et al. 1981; Wahl and Roth 1982; Signorelli 1989; Monahan 1992; Wahl 1995; Williams and Taylor 1995; Diefenbach 1997; Granello et al. 1999). As noted by Wahl (in press), media depictions of the violence committed by persons with SMI are more graphic and disturbing than those depicted for persons without SMI. Furthermore, Berlin and Malin (1991) found that news reports about mental illness were generally inaccurate, which likely contributes to public confusion regarding the characteristics of mental illness. These negative, inaccurate depictions of persons with SMI appear in both media for adults and media for children (Wilson et al. 2000; Wahl, in press). Finally, although no causal relationship between exposure to the media and psychiatric stigma has been established, there is evidence that greater television viewing is associated with greater intolerance toward persons with mental illness (Granello and Pauley 2000). Therefore, it appears likely that the media does contribute to negative attitudes, stereotypes, and behaviors toward persons with SMI.

Given the potential role of the media in affecting stigma, we conducted an initial evaluation of whether a documentary about persons with SMI, specifically schizophrenia, can reduce stigma. The documentary about schizophrenia (*I'm Still Here*) was selected because it depicts persons with the disorder and their families. Based on the clinical experience of two of the authors (D.L.P. and K.T.M.), we felt that this film presented a realistic image of schizophrenia, by showing individuals with varying forms of illness severity and course. For example, one individual depicted in the film is employed and has a spouse and children, while some others are less independent and more symptomatic; one individual is acutely psychotic and shown homeless in Central Park, while another individual has negative symptoms and lives at home with her parents. The film also underscores the potential devastation of schizophrenia by depicting an individual who appears fully recovered but later commits suicide after the illness returns. We hypothesized that the individual depictions of schizophrenia would personalize the disorder for participants, which would weaken negative stereotypes. The effects of this film were examined on a range of stigma-related variables, including general attitudes (e.g., social distance), attributions, and behavioral intentions. It was hypothesized that relative to control films and a no-film condition, the documentary about schizophrenia would result in (1) lower negative attitudes about schizophrenia; (2) attributions that schizophrenia can change over time and that persons with the disorder should not be blamed or deemed responsible for their condition; and (3) greater intent to interact with persons with schizophrenia.

Method

Participants. One hundred and sixty-three undergraduates at the University of North Carolina-Chapel Hill participated in the study in partial fulfillment of course credit. The sample was 55.8 percent female and 81.5 percent Caucasian. The average age of participants was 18.85 years ($SD = 0.87$).

Measures

Documentary films. Participants were randomly assigned to one of four experimental conditions: no documentary film, documentary about polar bears, documentary about fears of being overweight, and documentary about schizophrenia. We included a no-film condition to obtain a baseline assessment of participants' attitudes toward persons with mental illness in the absence of any experimental manipulation. The film about overweight individuals (described below) and the stigma they face served as a control for seeing a documentary about a nonpsychiatric population, while the film about polar bears served as a control for seeing a documentary film in general. The films ranged in length from 43 to 70 minutes and mixed scientific discussion with "up-close" testimonials (for the first two films) and/or observation of the topic population/animals.

The three films used in the study were *I'm Still Here*, a documentary about schizophrenia ("schizophrenia film"); *Fear of Fat*, a feature about overweight individuals, which originally aired on PBS's *Frontline* ("weight-fears film"); and *Great White Bear*, a feature about polar bears, which originally aired on the Discovery channel ("Animal film"). The first author (D.L.P.) purchased all three films for use in this study.

To determine whether the three documentary films had a differential effect on participants' mood, the Positive and Negative Affect Scale (PANAS; Watson et al. 1988) was administered before and after each film. Participants in the no-film condition rated their mood only once. The PANAS comprises 20 mood-related adjectives (e.g., "irritable," "proud") that are rated on 5-point Likert scales (for the extent to which the adjective reflects the participant's current mood) ranging from 1 ("very slightly or not at all") to 5 ("extremely"). These 20 items form positive and negative mood subscales, which had good internal reliability in the study (Cronbach's alpha for pre- and postfilm assessments ranged from 0.78 to 0.88).

In addition to mood, we assessed how much participants liked each film by developing a measure—the Film Rating Form (FRF)—for this study. The FRF comprises six items, rated on 5-point Likert scales, that ask the participant to rate the film on the following dimensions: whether it was interesting (not at all interesting to very

interesting), whether it provided valuable information (not at all informative to very informative), whether it was emotionally engaging (not at all emotionally moving to very emotionally moving), whether it was appealing (not at all to very much), whether it evoked feelings of sympathy (not at all sympathetic to very sympathetic), and whether it would be recommended to a friend (definitely would not recommend to definitely would recommend). The FRF had excellent internal reliability ($\alpha = 0.84$).

Stigma-dependent measures. A number of measures from our previous research on psychiatric stigma were used in this study (Penn et al. 1994, 1999; Penn and Nowlin-Drummond 2001; Penn and Corrigan, in press). These measures were the Social Distance Scale, the Dangerousness Scale, an affect scale, an attributions scale, and an index of behavioral intentions.

Social Distance Scale (SDS; Link et al. 1987). The SDS comprises seven questions that refer to potential interactions with a hypothetical individual with mental illness. It is considered a proxy measure of social avoidance. The participant is asked to rate each item on a 4-point Likert scale (0 = definitely unwilling to 3 = definitely willing) regarding willingness to interact with "someone with schizophrenia," which is the extent of the description of the hypothetical individual. Summing the items yields a composite measure of social distance (range = 0–21). The SDS had excellent internal reliability in this study ($\alpha = 0.80$).

Dangerousness Scale (DS; Link et al. 1987). The DS comprises eight items that tap beliefs about whether persons with mental illness are likely to be a danger to others. The questions pertain to persons with mental illness in general, rather than a specific target individual. The participant rates each item on a 7-point Likert scale (1 = strongly agree to 7 = strongly disagree). Relevant items were reverse-scored so that higher numbers reflect ratings of greater perceived dangerousness. Summing the eight items yields a composite score (range = 8–56). The DS had good internal reliability in the present study ($\alpha = 0.75$).

Affect scale. The affect scale requires the subject to rate his or her emotional reactions to persons with mental illness. It comprises ten opposite pairs of adjectives pertaining to emotions (e.g., "calm-nervous"). The participant rates each adjective pair with respect to how he or she would react to interacting with someone with a mental illness on a 7-point scale, with neutral being the midpoint. Half of the items were reverse-scored so that higher numbers reflect greater negative affect. Summing the ten items yields a composite score (range = 7–70). The affect scale had excellent internal reliability in the present study ($\alpha = 0.83$).

Attributions scale. To measure attributions regarding

schizophrenia (Corrigan 2000), participants responded to three questions asking them to rate a target individual's (i.e., a "person with schizophrenia's") degree of blame and responsibility for his or her illness, as well as the likelihood that his or her condition would change. Each question was rated on a 7-point Likert scale. The items and anchors were blame (1 = not at all to blame to 7 = entirely to blame), responsibility (1 = not at all responsible to 7 = entirely responsible), and changeability (1 = not at all likely to change to 7 = likely to change). Higher scores reflect higher levels of blame and responsibility, and lower levels of changeability.

Index of behavioral intention. Behavioral intention is often considered a precursor of behavioral action (Fishbein and Ajzen 1975). Consistent with previous work (e.g., Penn and Nowlin-Drummond 2001), behavioral intention to interact with someone with schizophrenia was assessed by asking the participant if he or she was interested in attending a focus group at the university with persons with schizophrenia to discuss issues related to stigma. Participants were asked to indicate their interest in attending the meeting by circling either "yes" or "no" on the answer sheet, followed by recording their phone number so that they could be contacted regarding this meeting. Performance was indexed as the proportion of participants who recorded their phone number.

Other measures. To disguise the purpose of the study, additional attitude and personality scales were included. Scales were chosen that have been shown to relate to stigma and/or response biases in order to evaluate whether the four experimental groups were equivalent on these dimensions. These scales were the Rosenberg Self-Esteem scale (RSES; Rosenberg 1965), the Marlowe-Crowne Social Desirability Scale (MCS; Crowne and Marlowe 1960), the Protestant Ethic Scale (PES; Mirels and Garrett 1971; revised by Katz and Hass 1988) and the Contact (with mental illness) Scale (CS; Link and Cullen 1986). The CS asks participants to indicate, answering "yes" or "no," whether they have ever had contact with a person with a mental illness, across various situations (e.g., "Have you ever visited a hospital for persons with mental illness?" "Have you ever known a person who was hospitalized for a mental illness?"). These scales had good internal reliability, with a range in alpha from 0.58 (PES) to 0.87 (RSES).

Internal validity check. Following completion of the above measures, participants were instructed to respond to two questions about what they thought were the study purpose and hypotheses. Two raters, blind to participants' group membership, later coded participants' written responses as reflecting a correct or incorrect identification of the study purpose and hypotheses. Interrater reliability was high for both questions (i.e., intraclass correlations = 0.88 and 0.89, respectively).

Procedure. Participants were tested in a classroom of 20 to 30 persons/session to facilitate data collection, and each group of participants was randomly assigned to receive one of the experimental conditions. After obtaining informed consent, participants completed the PANAS. All those except participants in the no-film condition then viewed one of the three documentary films. After participants had viewed the film, they completed the PANAS a second time. Participants were then administered the battery of measures in random order, with the exception of the behavioral intention measure, which was always administered last.

Results

Preliminary Analyses. Prior to conducting the primary analyses, we examined whether there were any group differences in participant demographic characteristics, stigma-related filler measures, or initial PANAS ratings. No significant group differences emerged (all p 's > 0.10), indicating that the four groups were equivalent in terms of demographics, mood, contact with persons with mental illness, self-esteem, response bias tendencies, and adherence to the Protestant work ethic.

Data Analytic Plan. To determine the effects of the documentary film on psychiatric stigma, we conducted two multivariate analyses of variance (MANOVAs), first on the three general stigma measures (i.e., SDS, DS, and affect scale), and second on the attribution variables (i.e., blame, responsibility, and changeability). Finally, we conducted a chi-square analysis on the behavioral intention variable as a function of group.

Following these primary analyses, we examined the effects of the documentary films on participants' mood, as well as on whether participants differentially liked the films. Finally, we evaluated whether participants in the four groups differed in guessing the study purpose and hypotheses.

Primary Analyses. The descriptive statistics for the primary analyses are summarized in table 1. A one-way (no film, animal film, weight-fears film, schizophrenia film) MANOVA conducted on the SDS, DS, and affect scale was not significant, $F(9,462) = 1.35$, nonsignificant (ns), indicating that the films did not differentially affect the general measures of psychiatric stigma.

A second one-way (group) MANOVA conducted on the attributional variables was significant, $F(6,318) = 4.73$, $p < 0.01$. It should be noted that because of the high intercorrelation between the blame and responsibility variables ($r = 0.60$, $p < 0.01$), these variables were combined into a single attributional variable. Change-

Table 1. Stigma measures as a function of group

	No film (n = 39)	Animal film (n = 41)	Weight- fear film (n = 40)	Schizophrenia film (n = 38)
General psychiatric stigma measures, mean (SD) ¹				
Affect scale	37.2 (7.9)	38.9 (8.2)	39.0 (8.0)	37.8 (7.1)
DS	32.2 (7.4)	29.4 (7.5)	30.2 (6.5)	29.0 (5.9)
SDS	12.2 (3.0)	10.9 (3.5)	10.9 (3.8)	10.2 (3.1)
Attributions, mean (SD) ^{1,2}				
Blame/ responsibility	4.4 ^a (2.1)	4.0 ^a (2.0)	4.0 ^a (1.9)	2.8 ^{b1} (1.5)
Changeability	3.9 ^a (1.4)	3.8 ^a (1.0)	3.6 ^a (0.9)	2.9 ^b (1.5)
Behavioral intention (n)				
Yes	11	19	16	16
No	28	22	26	24

Note.—DS = Dangerousness Scale; SD = standard deviation; SDS = Social Distance Scale.

¹ Higher numbers indicate greater stigma.

² Means with different superscripts are significantly different from one another ($p < 0.05$).

ability had only a small-modest association with the blame ($r = 0.15$, *ns*) and responsibility variables ($r = 0.27$, $p < 0.05$), so it was not combined with the other two attribution variables. Following the significant MANOVA, one-way (group) analyses of variance (ANOVAs) were conducted separately on the combined blame/responsibility and changeability variables. Both ANOVAs were significant (both p 's < 0.01). Probing of the main effects with Tukey HSD post hoc tests revealed that the schizophrenia film resulted in attributions that ascribed less blame and responsibility to persons with schizophrenia for their disorder and that viewed the disorder as more changeable relative to participants in the other three conditions (all p 's < 0.05). No other post hoc tests were significant.

Finally, a chi-square analysis was conducted on the proportion of participants who agreed to participate in the focus groups and provided their phone numbers (data were missing from one participant, resulting in a sample of 162). The results of this analysis were not significant ($\chi^2 = 2.84$, $df = 3$, *ns*), suggesting that the films did not have a differential impact on participants' behavioral intentions.

Secondary Analyses. To assess the effects of the three films on participants' mood, two one-way analyses of covariance were conducted on the PANAS positive and negative mood posttest ratings, with pretest scores as

covariates. The results were significant for both the positive, $F(2,120) = 9.30$, $p < 0.01$, and the negative posttest ratings, $F(2,120) = 8.4$, $p < 0.01$. Tukey post hoc tests revealed that participants who viewed the documentaries about schizophrenia or weight fears had greater negative and positive moods after viewing these films relative to participants who viewed the control documentary about polar bears (both p 's < 0.05).

Participants' ratings of the films' appeal and interest level were assessed with a one-way (group) ANOVA conducted on the film rating forms. The ANOVA was significant, $F(2,121) = 7.23$, $p < 0.01$, with post hoc tests showing that the documentaries about weight fears (mean = 21.8) and schizophrenia (mean = 22.6) were rated as more appealing than the film about polar bears (mean = 19.3).

To evaluate whether participants' mood changes and film impressions affected the results, we repeated the aforementioned MANOVAs with PANAS positive and negative change scores, and the film rating scores, entered separately as covariates. The results of all analyses were unchanged.

A pair of chi-square analyses was conducted on whether participants guessed the study purpose or hypotheses (i.e., "yes" or "no" according to the independent ratings) as a function of group. The chi-square was not significant for guessing the study purpose ($\chi^2 = 2.95$, *ns*) or guessing the hypotheses ($\chi^2 = 7.11$, *ns*).

Discussion

The purpose of this study was to examine whether a media presentation about SMI could reduce psychiatric stigma. The findings indicated that a documentary about schizophrenia influenced participants' attributions about schizophrenia but affected neither general attitudes about the illness nor behavioral intentions to participate in a focus group with persons with schizophrenia. These findings are discussed below.

Viewing a documentary about schizophrenia resulted in attributions that ascribed less blame and responsibility to individuals for their disorder, and a view of schizophrenia as being more likely to change, relative to participants who viewed control films or no film at all. This finding has potentially important implications for reducing discrimination toward persons with SMI, as attributions are thought to be important mediators of stigmatization in general (Weiner 1995) and psychiatric stigma in particular (Corrigan 2000). Therefore, this underscores the need for stigma reduction strategies to target individuals' attributions about the nature of mental illness (i.e., Corrigan et al. 2001).

It was hypothesized that the schizophrenia film would be associated with more positive attitudes toward persons with schizophrenia and a greater willingness to interact with them, relative to the other experimental conditions. Although this hypothesis was not supported, the general pattern of means for the attitudinal measures was in the expected direction; participants who viewed the schizophrenia film generally desired less social distance, had less negative affective reactions, and perceived persons with schizophrenia as less dangerous relative to the other study participants. This pattern notwithstanding, the mean differences were not statistically significant, suggesting that the schizophrenia film was unable to affect general attitudes reflecting psychiatric stigma. This is somewhat surprising, given previous research from our laboratory showing that lower social distance, more positive affective reactions, and less perceived dangerousness are associated with brief educational interventions or self-reported previous contact with persons with SMI (Penn et al. 1994, 1999; Penn and Nowlin-Drummond 2001). Thus, although the film clearly imparted educational information and portrayed persons with SMI, the information may have been too diffuse (i.e., not concentrated in any one part of the film) or the contact too impersonal to affect general attitudes about psychiatric stigma. It is also possible that a film depicting the heterogeneity of schizophrenia, while "realistic," may not be the most effective strategy for reducing stigma. Rather, a more powerful intervention might have been an "unambiguous" disconfirmation of the mental illness stereotype by depicting more of a "success

story," such as that illustrated in the feature film *A Beautiful Mind*. Of course, such a disconfirmation strategy may result in individuals classifying the depicted exemplar as an "exception to the rule" (discussed in Corrigan and Penn 1999), thus producing little impact on attitudes and behaviors toward persons with mental illness in general. This question is worthy of future investigation. What can be concluded is that educational strategies alone, like this one, are unlikely to affect all aspects of psychiatric stigma and that other strategies, including personal contact, may be required.

The schizophrenia film also did not significantly increase participants' intentions to interact with individuals with schizophrenia. This suggests that changes in attributions about schizophrenia may not be reflected in levels of analysis closer to social behavior. Alternatively, the measure of behavioral intention, attending a "focus group" with persons with schizophrenia, may have been too general and future oriented, rendering it a relatively insensitive measure. Perhaps a more immediate index of behavior and intention, such as donations to the National Alliance for the Mentally Ill (e.g., Corrigan et al. 2001) or behavior during actual social interactions, would have been a more appropriate measure for this study. For example, asking the participant to have a videotaped interaction with a person with schizophrenia (or a confederate posing as someone with schizophrenia) immediately after the film might have been a more sensitive measure of behavior than asking his or her intention to attend a focus group in the future. Finally, the measure of behavioral intention was limited to a single item (i.e., participants recording their phone number so they could be contacted regarding attendance at a future focus group). Therefore, the lack of effects of the film on behavioral intention could reflect the inadequacy of a single-item measure rather than a true inability to affect future intention to interact with persons with schizophrenia.

A possible criticism of this study is the inclusion of only undergraduate students in the design. This is a legitimate issue and suggests that the results need to be replicated with a more diverse sample, especially individuals who have a significant impact on the quality of life of persons with schizophrenia, such as employers and landlords. However, in a previous study, we found that undergraduates and community members did not significantly differ in attitudes toward persons with SMI (Penn and Nowlin-Drummond 2001). Therefore, the external validity of this study should not be automatically dismissed.

In closing, this study showed that a documentary about schizophrenia produced more benign attributions about persons with schizophrenia. While this finding is fairly circumscribed, it is not trivial, as we were able to show that a single brief presentation could affect fairly

long-standing attributions about SMI. This stigma reduction strategy had little impact on general attitudes and behavioral intentions to interact with persons with schizophrenia. Future research should examine the effects of media presentations about persons with SMI on actual social behavior, not attitudes or behavioral intentions alone.

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