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Implicit Theories of Personality and Cognitive, Affective, and Behavioral Responses to Interpersonal Transgressions

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IMPLICIT THEORIES OF PERSONALITY AND COGNITIVE, AFFECTIVE,
AND BEHAVIORAL RESPONSES TO INTERPERSONAL TRANSGRESSIONS

A Thesis

Presented to

The Faculty of the Department of Psychology
The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree of
Master of Arts

by

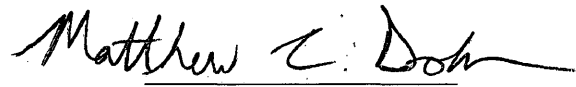
Matthew Charles Dohn

2002

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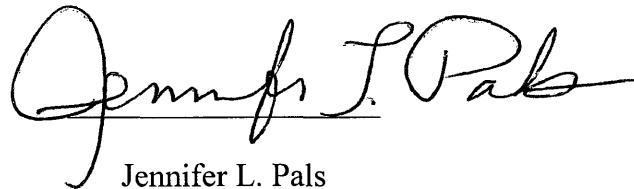
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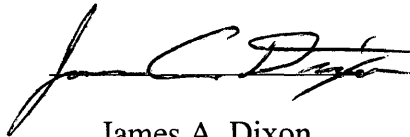
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Approved, June 2002

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Constance J. Pilkington

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ABSTRACT

Previous research on implicit theories of personality suggested a potential link between holding the belief that personality characteristics are fixed or changeable and proneness to experience shame or guilt in interpersonal situations. The current study sought to examine these patterns of cognitive, affective, and behavioral response in the context of being the perpetrator and victim of interpersonal transgression. These patterns were assessed in two separate studies. In one study, participants' implicit theories of personality were measured and correlated with scores on a measure of proneness to experience shame and guilt, and with responses to hypothetical scenarios involving interpersonal transgression. In the second study, participants' implicit theories of personality were experimentally primed and group differences were assessed in responses to hypothetical scenarios involving interpersonal transgression. Overall, results partially supported the hypotheses, as implicit theories of personality were found to be associated with some specific aspects of the predicted patterns of response. Most significantly, holding an entity theory of personality was found to be associated with avoidance of dealing with situations involving interpersonal transgression.

IMPLICIT THEORIES OF PERSONALITY AND COGNITIVE, AFFECTIVE,
AND BEHAVIORAL RESPONSES TO INTERPERSONAL TRANSGRESSIONS

Introduction

An important area of research in social/personality psychology deals with how we handle interpersonal transgressions in social situations. When we are the victims of an interpersonal transgression perpetrated by another person, are we likely to seek revenge or to educate? When we are personally responsible for an interpersonal transgression, are we more likely to hide and avoid punishment or to make reparative action? In general, why are some people more likely to act to repair these social situations, while others are more apt to bring about further damage? What motivates our specific responses to transgression in social contexts?

The Cognitive-Affective Personality System model of Mischel and Shoda (1995) provides a theory that can be used as a guiding framework for answering the question of how individuals respond to situations involving interpersonal transgression. Mischel and Shoda propose that individual differences in personality are related to the situational activation of chronically accessible cognitive-affective “units,” such as implicit theories about personal characteristics. When an individual encounters a situation that is relevant to a chronically accessible cognitive-affective unit, that unit is activated. The activation, or motivation, of the cognitive-affective unit in turn guides specific responses to the social situation. Consequently, chronically accessible units, such as implicitly held beliefs, can be primed by exposure to relevant situations. This sequential pattern of response to social situations, with the initial

activation of implicit theories of personality guiding predictable patterns of response, is the theoretical orientation applied to the current study.

*Emotional Responses to Interpersonal Transgressions: Research on the Distinction
Between Shame and Guilt*

One area of research that has attempted to identify and understand different ways we respond emotionally to and deal with interpersonal transgressions is that of Tangney and her colleagues (Tangney, 1996). Building on the work of Helen Block Lewis (1971), Tangney hypothesized that two broad emotions, shame and guilt, are the keys to understanding an individual's responses to interpersonal violations. Shame and guilt have been identified as independent emotions (Tangney, Miller, Flicker, & Barlow, 1996) that can have very different implications for dealing with interpersonal transgressions. According to this research, the most important difference between shame and guilt is the cognitive appraisal of the self in the interpersonal transgression. Specifically, in shame, negative evaluations of self are focused on the entire self, following transgression. Individuals who are experiencing shame are more likely to evaluate the entire self as defective. On the other hand, in guilt, the focus of evaluation is not on the entire self; rather, individuals who are experiencing guilt are likely to focus their negative evaluation on specific behavior. Like those experiencing shame, individuals experiencing guilt following a moral violation are likely to recognize the fact that they have wronged someone else. The key aspect is that individuals experiencing guilt are not likely to evaluate the entire self as defective; rather, they are likely to focus their negative evaluations on particular aspects of self, such as behavior.

This differential focus of evaluation has been demonstrated in a study of the counterfactual thoughts generated by individuals in response to interpersonal situations (Niedenthal, Tangney, & Gavanski, 1994). Participants were presented with a scenario describing a situation in which the participant has committed an interpersonal transgression against a friend. The scenario was found in pre-testing to be equally likely to elicit shame or guilt. After imagining themselves in the scenario, participants were asked to generate counterfactual thoughts, actions that they believed would undo the negative outcome described in each scenario. The counterfactual thoughts were designed such that they focused on either lasting, global characteristics of the self, such as personality traits, or temporary aspects of the self, such as behavior. Half of the participants were instructed to provide counterfactual thoughts that took the form of “If only I were (not)”, with the focus being placed on lasting, global characteristics of the self. The other half of the participants were asked to provide counterfactual statements of the form “If only I had (not)”, with the focus placed on temporary and changeable aspects of the self. Finally, half of the participants within each condition were asked to report how much shame they expected to feel as a result of the scenario, while the other half of the participants within each condition were asked to report how much guilt they expected following the experience of the scenario events.

It was found that participants who focused on permanent and global aspects of the self expected to experience significantly greater amounts of shame than guilt as a result of the events of the scenario. In contrast, participants who focused on temporary and changeable aspects of the self expected to experience significantly greater amount of guilt than shame following the events of the scenario (Niedenthal et al., 1994).

Response Patterns Associated with Self as Perpetrator of Interpersonal Transgression

The differential focus of evaluation between shame and guilt on the global self and behavior, respectively, has been linked to different patterns of responses. The experience of shame following moral transgression has been associated with negative, painful evaluations of the entire self, an emotionally draining experience. Shame has also been associated with worrying about negative evaluations of others. Since the self-scrutiny of shame leads to negative evaluations of the entire self, and the painful emotions associated with this focus on the entire self, individuals who are experiencing shame are afraid of the compounding effects of the judgments and evaluations of others. As a result, individuals experiencing shame will often seek to minimize the possibility of negative evaluations of others, often through reactionary responses such as avoidance of interpersonal situations and displacement of blame (Tangney, 1996). The displacement of blame for individuals experiencing shame is of particular importance, as it has been linked to socially destructive expressions of anger; that is, following shame inducing transgressions of the self, individuals have been shown to possess an increased tendency for redirected hostility towards those they have made the victims of their moral transgression (Tangney, 1995). Leith and Baumeister (1998) have noted that shame-prone individuals often engage in action that moves the focus from the deficient self to other potential sources. As a result, shame-prone individuals will often avoid dealing with both the problem and other people, or will attempt to blame other individuals for their own transgressions.

The experience of guilt, in contrast to the experience of shame following moral transgression, has been linked not to global negative evaluations of the whole self, but

rather to negative evaluations focused on the specific behavior perpetrated by the self. With this focus on behavior, individuals who experience guilt worry about the effect of the behavior on those whom have been victimized, rather than the evaluation of the self. In addition, unlike shamed individuals, the experience of guilt has been found to be associated with increased motivation to repair the damages that result from the moral transgression (Tangney, 1996). Moreover, guilt has not been found to be associated with displaced anger, but rather an increased capacity for empathic thought and feelings towards those who have been wronged (Tangney, 1995). Leith and Baumeister (1998) have found an association between guilt-proneness and empathy following transgressions of the self. Given that guilt-prone individuals are seemingly quite concerned with minimizing any negative consequences following their own transgressions, it is not surprising that these individuals would show an increased capacity for concern about the well-being of others, especially the individuals who have been affected by the transgression.

Research has also demonstrated that people show stable individual differences in their tendencies to experience shame and guilt. Through the use of the scenario-based TOSCA, the Test of Self Conscious Affect (Tangney, Wagner, & Gramzow, 1989), it has been shown that people are likely to consistently experience either shame or guilt over a wide variety of social scenarios, and to exhibit the specific cognitive, emotional, and behavioral responses discussed previously (Tangney, 1996).

Emotional Response to Self as the Victim of Interpersonal Transgression

The link between shame or guilt-proneness and responses to our own moral transgressions has been well established; however, on occasion we also find ourselves the

victim of the moral transgressions of others. How do people respond emotionally to being wronged by others? Lazarus (1991) identified anger as a natural response to being the victim of an interpersonal injustice. Anger follows our initial cognitive appraisal of the anger-evoking situation and motivates specific responses to both the situation and to those who have victimized us. But how do we deal with this anger? Where do we direct our anger responses? Are the expressions of anger intended to hurt those who have angered us, or are they intended to guard against future occurrences of the immoral behavior? In an effort to answer some of these questions, the research on responses of shame and guilt-prone individuals has been extended to look for systematic differences in responses to anger-eliciting situations.

In a study conducted by Tangney, Wagner, Hill-Barlow, Marschall and Gramzow (1996), shame-proneness, as measured by the TOSCA, was correlated with so-called “maladaptive”, or destructive, responses to anger. Shame-prone individuals were less likely to make attempts to bring about positive changes in the social situation; rather, proneness to shame was found to be significantly associated with angry, aggressive intentions directed at the perpetrator of the offense. These intentions include both malevolent, direct physical and verbal aggression (i.e. “revenge”), as well as fractious intentions to avoid dealing with the perpetrator. Shame-prone individuals also exhibited an increased desire to escape the social situation, in an attempt to avoid dealing with the situation.

This pattern of dealing with anger for shame-prone individuals in response to being victimized by the actions of others is in stark contrast to the adaptive, constructive pattern of responses to anger displayed by guilt-prone individuals. Proneness to guilt was found

to be negatively correlated or uncorrelated with both the malevolent and fractious intentions found in shame-prone individuals. Instead, proneness to guilt was positively correlated with constructive intentions following anger. These constructive intentions include being concerned with constructively dealing with the perpetrator of the negative social behavior, in an attempt to fix the situation and to avert any negative long-term consequences of the situation.

In summary, we see that proneness to experience shame or guilt in response to interpersonal violations has been shown to have distinct implications for the cognitive, emotional and behavioral responses that result, and that these differences are present both for the moral transgressions of others as well as the self. Proneness to experience shame has been associated with extreme emotional reactions and harsh, punitive responses to behavior of both the self and others, in contrast to the more constructive responses of guilt-prone individuals. What activates these very different ways of framing and responding to interpersonal transgressions? In line with the cognitive-affective personality system model of Mischel and Shoda (1995), the present research investigates the idea that differences between shame and guilt-prone individuals result from differences in basic, implicit beliefs about the nature of people and their characteristics.

Implicit Theories of Personality

The extent to which an individual endorses the belief that personal characteristics, such as personality traits or ability, are fixed and enduring, as opposed to changeable and improvable may have important implications for their responses to interpersonal transgressions. This idea, the notion that implicit theories of personality can affect the appraisal of situations, is the product of the research of Carol Dweck and her colleagues

(Dweck, 1999). People who believe that characteristics are fixed entities that are largely unchangeable, or so-called “entity theorists,” have been distinguished from those people who believe that characteristics are changeable, or “incremental theorists.”

Implicit Theories and Responses to Negative Evaluations of the Self

In line with Mischel and Shoda’s (1995) cognitive-affective personality system model, research on implicit self theories has shown that the implicit theories are chronically accessible beliefs that get activated in situations in which the self is negatively evaluated and have implications for cognitive, affective and behavioral responses to these situations. This research has focused on the situations of academic failure and social rejection, which are similar to each other and to interpersonal transgression in that they all involve negative self-evaluation. As will be described below, the findings from this research suggest that *entity theories may activate the shame-prone response in interpersonal transgressions, whereas incremental theories may activate the guilt-prone response to interpersonal transgressions.*

Academic Failure. A number of studies on children’s responses to failure on tests of intelligence have identified two distinct patterns of cognitive, affective, and behavioral response to this failure (Dweck, 1999). For some students, failure is perceived to be indicative of persisting deficiencies in intelligence, and that nothing can be done to remedy the situation. These children are prone to experience negative emotions, to be more likely to give up, and to evaluate themselves negatively in response to this failure. This response pattern has been identified as a “helpless” response, as the child feels that nothing can really be done.

Most importantly, this helpless response pattern has been found to be associated with students who hold entity theories of intelligence. That is, to the degree that a given individual believes that intelligence is a fixed entity, they are more likely to attribute failure to the stable self, feel bad, make negative evaluations of the entire self following failures on tests of intelligence, and to show a desire to give up following these initial failures. These negative evaluations often result from the tendency for entity individuals to hold “performance goals” for tests of ability, as they view tests as objective opportunities to demonstrate the level of overall ability that they possess within the test domain.

For other students, however, failure is not indicative of overall deficiencies in intelligence, but of a need to attempt different types of strategies on future problems. Failures are seen as a challenge, and positive emotions often result in response to the child’s active efforts to improve their future performance. This response pattern was identified as a “mastery-oriented” response, as the child feels that failure presents a challenge that needs to be overcome through improvements in effort.

The mastery pattern of response to failure on tests of intelligence has been found to be associated with children who hold incremental theories of the construct of intelligence. To the degree that a given student perceives intelligence to be changeable over time and situation, the student is likely to view failure as an opportunity for growth that can result in improved future ability and performance. Students who hold this type of belief are said to possess a “learning goal”, as they hope to improve their skills as a result of the experience.

Social Failure. Implicit theories of personality characteristics have also been found to be related to different response patterns of individuals to failure in the social domain (Erdley, Cain, Loomis, Dumas-Hines, & Dweck, 1997). In this study, children were asked to write a letter to join a new pen-pal club under one of two goals. One group of children was given a performance goal for the exercise; that is, they were told that their success at writing the pen pal letter would be viewed as indicative of their overall ability to make new friends. Another group of children were given a learning goal for the letter writing exercise; that is, these children were told that the exercise was meant to be as an opportunity to improve their friend making skills. Children in both groups were then given the impression of initial failure in joining the pen pal club. The children were asked to write a second letter in another attempt at getting into the pen pal club.

Children who held performance goals for the letter writing exercise were found to be more likely to view the initial social rejection as global condemnation, and believed that little could be done to improve the pen pal's perception of them. Consequently, these children demonstrated helpless responses to their social failure; that is, they made attributions of the perceived social rejection as being reflective of their personal deficiencies and put little effort into revising the follow-up letter, a pattern of helpless response to failure that has previously been identified and associated with entity theories of personality.

On the other hand, children who held learning goals were found to be more likely to view the initial rejection as an opportunity to make improvements to their initial letter. Consequently, these children showed mastery oriented responses to their social failure; that is, they interpreted their social failure as being reflective of the amount of effort they

put into writing the pen pal letter, and put significantly more effort into making revisions of the first letter, a pattern of mastery responses to failure that have been previously associated with incremental theories of personality. It is important to note that for children holding learning goals, their social failure was not consistently attributed to global personal deficiencies, as was consistently found in the responses of children with performance goals. Instead, for children with learning goals, failure in the pen-pal situation was consistently attributed to the amount of effort put forth in their initial attempt.

An Example of Implicit Theories in the Context of Interpersonal Transgression of the Self

The findings described above in the context of academic and social failure suggest how implicit theories may relate to another kind of failure, that of being the perpetrator of an interpersonal transgression. Parallels can be drawn between the helpless pattern of response to academic and social failures and shame-proneness, as well as between the mastery response pattern and guilt-proneness. These links between implicit theories and patterns of response to interpersonal transgression will be further developed by considering the specific cognitive, emotional, and behavioral reactions of entity and incremental theorists, respectively. It may be helpful at this point to consider an example of an interpersonal situation that is relevant to the hypotheses of the current study. A scenario will be described, followed by a step-by-step evaluation of the distinct patterns of response that are expected to be associated with implicit theories based on the findings described above. Consider the following scenario, which research has shown to elicit shame or guilt depending on focus of evaluation of self (Niedenthal et al., 1994):

“Your good friend, who rarely dates, invites you to attend a party with him/her and their date, Chris. It is your friend’s first date with Chris. You go along and discover that Chris is not only very attractive, but is also flirting with you. You flirt back. Although you are not seriously interested in Chris, at the end of the night you give Chris your phone number. The next day your good friend raves to you about how much he/she liked Chris.”

Entity theory and Shame-prone response. How would an entity theorist respond in this situation? First, with respect to cognitive appraisal of self following an interpersonal transgression, entity theorists, with their fixed view of self, are predicted to make attributions of the cause of their moral violation to global, enduring characteristics of the self, just as children were shown to do in their helpless responses to both the academic failure and social rejection situations described above. In this scenario, entity theorists would likely view their flirtation with Chris, a negative behavior, as being indicative of being a bad person overall. Emotionally, entity theorists will then experience greater amounts of negative emotion as a result of their flirting behavior, as they believe this behavior reflects underlying unchangeable aspects of their entire self. After flirting with their friend’s date, entity theorists are likely to globally evaluate themselves as bad people for having betrayed their friend. This evaluation is expected to result in a negative emotional state for these individuals. For more extreme negative evaluations of the self, this negative emotional state may exceed what is warranted by the situation. Finally, the behavioral response of the entity theorist will be one of helplessness. Entity theorists will feel that the situation is hopeless, and that any attempt to make up for what they have done will be futile. Furthermore, the helpless response pattern dictates that entity theorists

will act with the goal of avoiding the negative judgment of those who they have wronged. In the context of the party scenario, it is predicted that these individuals will “beat themselves up” so badly for betraying their friend that they will consciously avoid dealing with their friend, and even blame the friend, in a defensive attempt to protect the self from this self-imposed abuse.

In each of the cognitive, emotional and behavioral responses to interpersonal transgressions of the self predicted above, the helpless response pattern of entity theorists corresponds closely to the global self-focus that is found in shame-prone individuals. The global self-scrutiny and condemnation that is predicted following the scenario, as well as the tendency to avoid dealing directly with those that they have harmed, is very similar to that shown in the literature on shame-proneness (Tangney, 1995).

Incremental theory and Guilt-prone response. Incremental theorists of personality, on the other hand, are expected to make attributions to changeable aspects of the self, such as specific behaviors. Incremental theorists would likely view their flirting behavior as a mistake they had made within the context of the social interaction. Incremental theorists are also predicted to show different emotional responses following the moral transgression described in the scenario. Following their actions in the party scenario, the mastery response pattern of incremental theorists predicts that they will also feel bad about having flirted with Chris. However, since incremental theorists do not view their negative behaviors as being indicative of global and lasting traits of personality, and therefore do not experience the overly painful self-scrutiny that entity theorists demonstrate, the negative emotion experienced is predicted to be less debilitating. Rather, incremental theorists are predicted to show “appropriate” levels of emotional response;

that is, the negative emotional state of the incremental theorists is expected to sufficiently demonstrate to the individual that their behavior was potentially hurtful and inappropriate, but not so debilitating for the individual as to keep them from responding to this information in a beneficial fashion.

The mastery pattern of incremental theorists further predicts that these individuals are likely to view their social failure as a challenging opportunity for their own growth and development. While they are just as likely as entity theorists to accept the blame for their flirting behavior, they are not predicted to view the situation as hopeless. Rather, their positive cognitive appraisal of the situation motivates behavior that is beneficial to the long-term health of the friendship; incremental theorists are predicted to apologize to their friend, and work with the friend to repair any damage that the friendship has incurred as a result of their actions.

As was the case with the helpless response pattern of entity theorists, the mastery pattern of response that is predicted of incremental theorists following the events of the scenario shares many similarities with the previous findings of guilt-prone individuals. The focus on changeable aspects of the self, with appropriate levels of emotional response and constructive behavior, is quite similar to what is predicted by the mastery response pattern of incremental theorists.

Implicit Theories and Being the Victim of Interpersonal Transgression

The previous section dealt with the predicted patterns of response of entity and incremental theorists to being the perpetrator of interpersonal transgressions. How will entity and incremental theorists respond to being the victim of interpersonal transgression? Previous research on implicit theories is not as well developed in

establishing specific patterns of cognitive, emotional, and behavioral responses to personally involving situations in which others are the focus of evaluation rather than the self. The current study seeks to add substantially to this developing avenue of research. However, the existing research on implicit theories of personality has examined the cognitive appraisals of the moral transgressions of others in situations in which the self was not the victim. Erdley and Dweck (1993), in a study of elementary school children, found that those who were entity theorists made harsher judgments than those children who held incremental theories of personality. Children in the study were shown a slide show of a boy acting immorally in a social situation (i.e. stealing, lying). They were then asked to attribute traits to the boy depicted in the slide show, as well as make predictions about how the boy might behave in the future. Erdley and Dweck (1993) found that entity theorists made significantly more negative global judgments about the boy from the presented information and gave much less optimistic predictions of the boy's future, as compared to the ratings made by their incremental counterparts.

The global condemnations of others made by entity theorists have also been found to influence the amounts of punishment allocated following the observation of the wrongdoings of others (Chiu, Dweck, Tong, & Fu, 1997). When asked to evaluate scenarios involving students who have disregarded the authority of their teachers, entity theorists recommended significantly greater amounts of punishment than the amount recommended by incremental theorists. Interestingly, entity theorists also recommended significantly less rewards for the student when the situation described positive social action. These findings further the notion that entity theorists are not only more likely to make global condemnations based on the observed social failures of others, but they are

also more likely to support greater amounts of punishment for the individuals who have failed.

The findings of the punishment responses of entity and incremental theorists following evaluation of the actions of others suggests a link that can be drawn between these responses and those predicted by the literature of shame and guilt-prone responses to being the victim of interpersonal transgression. As discussed above, entity theorists are more likely to demonstrate global condemnations and suggest harsher punitive action following the observed social transgressions of others. The literature on shame-prone responses to being the victim of interpersonal transgression makes similar predictions of individuals. Shame-prone individuals are expected to show “destructive”, maladaptive responses to the anger elicited by the interpersonal transgression. This destructive response to anger includes angry, aggressive behaviors and intentions, directed at the perpetrator of the transgression. The link can be drawn between the globally condemning, punitive responses of entity theorists and the maladaptive, destructive responses to anger shown by shame-prone individuals. Likewise, a similar parallel exists between the less globally punitive responses of incremental theorists and the adaptive, constructive responses of guilt-prone individuals to anger elicited by being the victim of interpersonal transgression, as identified earlier (Tangney et al., 1996).

Self-Esteem as Moderator of Entity Theorists' Responses to Interpersonal Transgression

A recurring theme regarding the potential responses of shame-prone individuals to transgressions of others is that there exists a range of possible responses. For some shame-prone individuals, the transgressions of others can lead to a strong desire to seek revenge; for others, these transgressions motivate avoidance of dealing with the situation.

In situations where the individual is the perpetrator of the transgression, some shame-prone individuals are likely to externalize blame and to lash out at those who might accuse them, while others are more apt to completely absorb all of the blame for their actions.

What is it that differentiates shame-prone individuals in their responses to transgression? In her examination of entity theorists, Dweck (1999) has speculated that an individual's level of self-confidence may act as a moderator of the responses of entity theorists to difficult situations, leading them to show different patterns of response. However, this speculation has not been clearly supported in the literature on implicit theories. We propose that self-esteem may serve to moderate the patterns of shame-prone response exhibited by entity theorists in response to situations involving interpersonal transgression.

In situations where the entity theorist is the perpetrator of interpersonal transgression, it is hypothesized that entity theorists with high levels of self-esteem will be more likely to respond to negative evaluations of the whole self by defensively externalizing blame outwardly onto others. In contrast, entity theorists with low self-esteem will be more likely to fully internalize blame onto the self. This pattern is predicted since we believe that entity theorists with high levels of self-esteem will perceive a greater need to avoid the debilitating effects of the holistic negative self-evaluations that automatically result from the cognitive appraisal of their role as perpetrator in the situation involving interpersonal transgression.

Furthermore, it is hypothesized that, in situations where the entity theorist is the victim of interpersonal transgression, individuals with high levels of self-esteem will be more

likely to exhibit harsh, punitive anger responses to the violations of others, whereas individuals with low levels of self-esteem will be more likely to demonstrate escapist and diffusing responses to anger following the transgressions of others. This pattern of responses to anger is predicted since we believe that someone with high self-esteem and the judgmental mindset of an entity theorist will possess greater capacities to assert “moral superiority” over others; therefore, they will be more punitive in their evaluations of the transgressions of others. In contrast, entity theorists with low self-esteem will not possess the necessary confidence to assert moral superiority; consequently, they will be more likely to show the avoidance responses that have been demonstrated previously.

Taken as a whole, the research on implicit theories of personality indicates that holding the belief that personality characteristics are either fixed (entity theorists), or changeable (incremental theorists) is associated with specific, predictable patterns of response to social situations involving the self and others. Of particular interest to the current study is the fact that these patterns of response on the part of entity and incremental theorists seem to overlap with the responses exhibited by shame and guilt-prone individuals to social situations involving interpersonal transgression. The current study proposes that the helpless pattern of response demonstrated by entity theorists closely parallels the response pattern of shame-prone individuals to interpersonal transgression, whereas the mastery-oriented pattern of response exhibited by incremental theorists shares many similarities with the response pattern found in guilt-prone individuals following interpersonal transgressions.

The Current Study

The current study was designed to closely examine how individuals react to situations involving interpersonal transgressions of both the self and of others. We hypothesized that individual differences in implicit theories of personality – whether characteristics are viewed as fixed or changeable - would predict specific patterns of cognitive, affective and behavioral responses to scenarios involving interpersonal transgression; that is, those who hold entity theories of personality would be likely to exhibit more shame-prone responses to scenarios describing interpersonal violations, whereas those who hold incremental theories of personality would be likely to exhibit more guilt-prone responses to scenarios describing interpersonal violations. Specifically, two studies, involving a combination of both correlational and experimental designs, as well as hypothetical and real life scenarios, were used to test the following hypotheses.

First, in response to being the perpetrator of interpersonal transgression, it was generally hypothesized that individuals who hold entity theories of personality would be shame-prone, whereas individuals who hold incremental theories of personality would be guilt-prone. More specifically, it was hypothesized that entity theorists would be more likely to: (a) focus their negative evaluations on the entire, unchangeable self, (b) place emphasis on negative self-judgments, (c) externalize blame, and (d) express a desire to avoid the situation. It was expected that incremental theorists would be more likely to: (a) focus their evaluations on behavior which is a changeable aspects of the self, (b) demonstrate empathic thoughts regarding those they have wronged, (c) take responsibility for their transgressions, and (d) take an active role in repairing the damage they have done. Finally, it was expected that self-esteem might moderate the relationship

between holding entity theories of personality and the externalization of blame such that those entity theorists with higher degrees of self-esteem would be more likely to externalize blame.

Second, in response to being the victim of interpersonal transgression, the expected response is accepted as anger. We hypothesized that the differences in dealing with this anger would be predicted by one's implicit theory of personality. We predicted that entity theorists would be more likely to: (a) report greater amounts of anger experienced, (b) display destructive and non-constructive responses to anger that results from being wronged by others, and (c) exhibit more malicious and revenge oriented responses to the transgressions of others. Incremental theorists were expected to be more likely to: (a) report lower amounts of anger experienced, (b) display constructive responses to anger, and (c) exhibit more reparative responses to the transgressions of others.

Study 1

In Study 1, individual difference measures of implicit theories were correlated with measures of shame and guilt proneness and anger response styles.

Method

Participants

One hundred forty one introductory psychology students (60 men and 81 women) from a small mid-Atlantic liberal arts university participated in six groups of approximately 24 students. Participants ranged in age from 18 to 26 years, with the mean age being 19 years. Participants received course credit for participation.

Materials

Implicit Theory Measure. Participants' implicit theory of personality was measured using the "Kind of Person" Implicit Theory scale for adults (Dweck, 1999; see Appendix A). The implicit theory measure has two forms, "Self" and "Other", both of which were administered. Both forms of the implicit theory measure were included, as it was expected that implicit theories about the personality of the self would be relevant to being the perpetrator of interpersonal transgression, whereas implicit theories about the personality of others would be relevant to being the victim of interpersonal transgression. Each form of the implicit theory measure consists of eight items dealing with the perceived changeability of personal characteristics (e.g., "Everyone, no matter who they are, can significantly change their basic characteristics.") Participants were required to indicate how much they agreed with each item on a 6-point scale, from 1 (strongly agree) to 6 (strongly disagree). After reverse-scoring the appropriate items, scores were computed by averaging across the items in the scale. Table 1 displays summary statistics for the measures included in Study 1. For the Implicit theory of personality measures, high scores are indicative of an incremental theory of personality (i.e. "personality characteristics are changeable"). Both the "Self" ($\alpha = .91$) and "Other" ($\alpha = .86$) forms of the implicit theory measure demonstrated high degrees of reliability, and correlate significantly with each other ($r = .89, p < .01$).

Proneness to Shame and Guilt. Participants' proneness to experience shame or guilt in social contexts was assessed through the use of a short-form of the Test of Self-Conscious Affect (TOSCA; see Appendix B). The TOSCA consists of 16 brief scenarios that represent situations encountered in day-to-day life. Each scenario is followed by a set

of potential responses; participants were required to indicate the likelihood of experiencing each of the responses on a 5-point scale. Responses to the TOSCA are then scored on one of five sub-scales: Shame, Guilt, Detachment from Situation, Externalization of Blame, and Pride. An example scenario from the TOSCA is the following:

You make plans to meet a friend for lunch. At 5'o clock, you realize you stood him up.

- a) You would think: "I'm inconsiderate."
- b) You would think: "Well, they'll understand."
- c) You'd think you should make it up to him as soon as possible.
- d) You would think: "My boss distracted me just before lunch."

In this example scenario, question A is an item of the Shame scale, question B is an item of the Detachment scale, question C is an item of the Guilt scale, and question D is an item of the Externalization of Blame scale. Participants' responses to questions on the TOSCA were averaged across items within each sub-scale to provide an index of proneness to experience each of the states of interest. The current study focuses on all sub-scales except pride and detachment, as these sub-scales are not directly relevant to the research questions. The short-form of the TOSCA consists of 11 scenarios taken from the 16 that comprise the original version of the measure, with the 5 scenarios containing a "positive" focus removed.

The long-form of the TOSCA has been shown to be a reliable measure of proneness to experience shame and guilt, with reported $\alpha = .74 - .76$ for the Shame sub-scale, $\alpha = .69 - .70$ for the Guilt sub-scale, and $\alpha = .66$ for the Externalization sub-scale (Tangney et al.,

1996; Tangney, 2002, personal communication). Consistent with these previous findings, the current study obtained $\alpha = .70$ for the Shame sub-scale, $\alpha = .69$ for the Guilt sub-scale, and $\alpha = .68$ for the Externalization sub-scale. These reliability estimates are acceptable, given that the TOSCA is made up of a series of specific situations.

Hypothetical Scenarios Involving Interpersonal Transgression. While the TOSCA has been shown to be a reliable measure of overall tendencies to experience shame and/or guilt in response to specific social situations, it does not allow for examination of more detailed aspects of various shame and guilt-prone responses to transgressions of both the self and others. Consequently, the experimenters created a set of scenarios involving interpersonal transgression, along with a set of follow-up questions that examine many of the distinct patterns of cognitive, affective, and behavioral responses to interpersonal transgression discussed in the existing literature on shame and guilt (Tangney, 1995). Furthermore, these new scenarios allow for the use of situations where the participant is described as the victim of interpersonal transgression, a type of scenario not addressed by the existing TOSCA measure.

Participants were asked to read two scenarios describing interpersonal transgression (see Appendix C). The scenarios were designed to depict realistic interpersonal situations in which a range of responses is appropriate. The scenarios differed, however, in the role played by the reader within the scenario. In one scenario, the “Self-As-Perpetrator”, the reader is described as the perpetrator of the interpersonal transgression, while in the other scenario, “Self-As-Victim,” the reader is the victim of an interpersonal transgression. Each scenario had both a male version and a female version; participants received the

appropriate scenario for their gender. The male version of the perpetrator scenario read as follows:

Your friend Patrick asks you to hang out. You've spent a lot of time with Patrick lately, so you don't feel like spending time with Patrick. You decide to lie and tell Patrick that you can't hang out because you have to work. Later, another friend of yours, Sammy, asks you to hang out. Sammy is able to persuade you to agree to hang out with him. Someone that you know happens to see you and Sammy hanging out, and word of this gets back to Patrick, who becomes quite upset with you as a result.

Following the perpetrator scenario, participants were asked to respond to a series of questions, designed to assess patterns of response following interpersonal transgression (see Appendix C). The questions were created by the experimenters, and are intended to cover the range of likely shame and guilt-prone responses to interpersonal transgression as identified by Tangney (1995). Shame-prone responses include negatively evaluating the entire self, explicit feelings of shame, externalizing blame to others, avoiding the situation, and worrying about the potential negative evaluations of others. Guilt-prone responses to the perpetrator scenario include negatively evaluating the behavior in question, explicit feelings of guilt, actively taking responsibility for one's behavior, desires to repair the relationship, and feeling empathy for those hurt in the situation.

The victim scenario is an adaptation of a scenario used in a previous study (Niedenthal et al., 1994). This adaptation was created by the experimenters of the current study. The male version read as follows:

You have recently become involved with a new person, Chris. For a first date, you suggest to Chris that you attend a party together. You decide to invite your good friend, Jeff, to come along. You and Chris have a good time at the party together. The following day, you bump into another friend who had been at the party and he asks if you noticed how much Jeff and Chris were flirting with each other.

As earlier, following the victim scenario, participants were asked to respond to a series of questions. These follow-up questions were created by the experimenters, and intended to cover the range of constructive and destructive responses to the anger elicited by the scenario, as well as the overall amount of anger elicited. The specific patterns of constructive and destructive responses to anger were based on the previous findings of Tangney, Wagner, Hill-Barlow, Marschall and Gramzow (1996). Constructive responses to anger include focusing on potential explanations for the transgression and intentions to discuss the situation with the perpetrator of the transgression. Destructive responses to anger include focusing on negative evaluations of the perpetrator, intentions to retaliate aggressively, intentions to avoid the situation, and possessing a negative long-term outlook for the future health of the relationship.

Narrative Accounts of Interpersonal Transgression. While the hypothetical scenarios allow for examination of specific responses to a single, uniform interpersonal transgression, we were also interested in individual differences in actual, past experiences of interpersonal transgression. Therefore, participants were asked to provide a narrative account of a past experience involving interpersonal transgression. The narratives of interpersonal transgression that participants provided were elicited by a questionnaire

(see Appendix D). Participants were randomly assigned to provide either “Perpetrator” or “Victim” narratives, and then responded to a set of narrative appropriate questions. For “perpetrators”, the questions were designed to assess the degree of shame or guilt the participant experienced in response to the events of the described narrative, as reflected in the cognitions, emotions and behaviors that resulted. For “victims,” the narrative questions were intended to measure the type of response to anger that was elicited by the events of the described narrative situation (Note: the data provided by these narrative accounts of interpersonal transgression were not analyzed for the current study, and will be examined in a follow-up study).

Self-Esteem. The self-esteem of participants’ was measured using the Rosenberg index of Self-Esteem (Rosenberg, 1965; see Appendix E). An example item from the RSE is “I feel like a person who has a number of good qualities.” Participants were asked to rate how true each of the 10-items are of them, on a scale of 1 to 5 with 1 being “not very true of me” and 5 being “very true of me.” The RSE has previously been shown to be a reliable measure of self-esteem, with α -estimates of reliability of between .80 - .90 (e.g., Robins & Pals, in press). In the current study, the RSE ($\alpha = .89$) proved to be equally reliable.

Procedure

Prior to their participation in the study, in a pre-screening questionnaire, participants completed both the Implicit Theory measures and Rosenberg’s index of Self-Esteem. Participation took place in 6 groups of 24 individuals. Individuals in each group were asked to participate in two sessions, with the second session taking place 48 hours after the first. In one session, participants provided narrative accounts of interpersonal

transgression; in the other session, participants completed the TOSCA and hypothetical scenarios involving interpersonal transgression. The sessions were separated to allow for some psychological space between the providing of narrative accounts of interpersonal transgression and responses to the experimental scenarios. In addition, to minimize any confounding effects of order the order of sessions was counterbalanced, as well as the order of presentation of the TOSCA and hypothetical scenarios. Finally, in the session containing narrative accounts of interpersonal transgression, participants were randomly assigned to receive materials eliciting different types of narrative accounts. Half of the participants were asked to provide narrative accounts of a situation where they were the perpetrator of an interpersonal transgression, and the remaining half were asked to provide narrative accounts of a situation where the participant was the victim of an interpersonal transgression.

Prior to participation in the study, informed consent was obtained from participants. Upon completion of both sessions, participants were given a full, detailed debriefing (see Appendix F), and given the opportunity to ask any questions of the experimenter. Participants were then thanked for their participation in the study.

Results

Preliminary Validity Analyses

The hypotheses of Study 1 were tested by correlating the Implicit Theory measures with the TOSCA scales and responses to the hypothetical scenarios, allowing for an in-depth look at specific cognitive, affective, and behavioral components of shame and guilt-prone responses. First, the validity of the hypothetical scenarios was evaluated by correlating the individual scenario question indicators of specific cognitive, affective and

behavioral responses with the established TOSCA sub-scales of Shame, Guilt, and Externalization of Blame. It was expected that shame-prone scenario questions would correlate significantly with the established TOSCA sub-scale of Shame, whereas the guilt-prone questions would correlate significantly with the TOSCA sub-scale of Guilt. Furthermore, the scenario question dealing with externalization of blame should correlate significantly with the TOSCA sub-scale of Externalization of Blame.

Table 2 shows the relations between the hypothetical scenario involving the experience of being the perpetrator of an interpersonal transgression and the TOSCA sub-scales of Shame, Guilt and Externalization of Blame. As Table 2 demonstrates, the scenario performed in a manner that was only partially consistent with what was intended. Several of the scenario response questions correlated with the TOSCA scales in a manner consistent with expectation. For example, the shame-prone response of avoidance of the situation operated in a manner consistent with expectations, as responses to this item correlated positively with the Shame sub-scale, and negatively with the Guilt sub-scale. Likewise, the guilt-prone response of actively seeking to repair the situation operated consistent with expectation, as responses to this item correlated positively with the Guilt sub-scale, and negatively with the Shame sub-scale. This pattern of correlations is further accentuated when the partial correlations of the scenario question items are taken into account, as looking at “pure” shame and guilt strengthens the correlations with the item indicators. In addition, the question regarding externalization of blame in response to the scenario correlated significantly with the TOSCA sub-scale of Externalization of Blame, also consistent with expectations.

Several response items in the perpetrator scenario showed the pattern of correlating with both shame and guilt-prone scales, but the partial correlations suggested that the more substantial correlation was with the theoretically-consistent scale. For example, the shame-prone response of negative evaluation of the entire self correlated with both the TOSCA sub-scales of Shame and Guilt; however, further examination of the partial correlations shows that this question correlated more strongly with the Shame sub-scale, consistent with expectation. Similarly, the guilt-prone response of negative evaluation of the behavior correlated with both the Shame and Guilt sub-scales, with a stronger partial correlation existing with the TOSCA sub-scale of Guilt, also consistent with expectations. Furthermore, the guilt-prone response of feeling empathy correlated with both the Shame and Guilt TOSCA sub-scales, with a stronger partial correlation with the Guilt sub-scale.

Finally, it should be noted that several of the scenario response questions did not correlate with the TOSCA as expected. For example, the response questions about reported feelings of shame and guilt in the situation were expected to correlate with the TOSCA sub-scales of Shame and Guilt, respectively. In addition, the shame-prone response of being concerned about the potential for being negatively evaluated by others was expected to correlate with the TOSCA sub-scale of Shame. As shown in Table 2, responses to these scenario questions correlated equally with both the Shame and Guilt sub-scales, contrary to expectation. The lack of difference in correlation was upheld even when the partial correlations were considered. Finally, the guilt-prone response of taking responsibility was expected to correlate with the TOSCA sub-scale of Guilt. This item did not correlate with any of the three TOSCA sub-scales. Given the inconsistencies of

the scenario measure, interpretations of the findings from this measure should be taken with appropriate caution.

Table 3 shows the relations between the hypothetical scenario involving the experience of being the victim of an interpersonal transgression and the TOSCA sub-scales of Shame, Guilt and Externalization of Blame. The “Self-as-Victim” scenario, in comparison with the “Self-as-Perpetrator” scenario, seemed to be the more valid measure, as evidenced by the correlations with the TOSCA sub-scale measures. Consistent with expectations, most of the constructive scenario responses to anger correlated with the TOSCA sub-scale of Guilt, whereas most of the destructive scenario responses to anger correlated with the Shame sub-scale, with a few exceptions. For example, contrary to expectations, the constructive anger response of focusing on understanding the cause of the scenario behavior correlated significantly with the Shame sub-scale. In addition, the destructive anger response of responding aggressively did not correlate significantly with either the TOSCA sub-scales of Shame or Guilt. Taken as a whole, however, it is clear that the “Self-as-Victim” scenario seems to be a fairly valid measure of shame and guilt-prone responses to anger towards others when victimized (Tangney, 1995).

Main Analyses

Hypothesis #1: Holding an entity theory of personality will be related to the shame-prone pattern of cognitive, affective, and behavioral responses to scenarios involving being the perpetrator of interpersonal transgressions, whereas holding an incremental theory of personality will be associated with the guilt-prone pattern of response.

This hypothesis was examined by correlating the Implicit Theory scale with the indicators of cognitive, affective, and behavioral responses to being the perpetrator of interpersonal transgressions. Specifically, the Implicit Theory scales were correlated with the Shame, Guilt, and Externalization of Blame scales from the TOSCA as well as the individual item indicators from the hypothetical scenario measures of being a perpetrator.

Table 4 shows the relations among the measures of implicit theory of personality and the TOSCA sub-scales of Shame, Guilt, and Externalization of Blame. As the TOSCA measures of shame and guilt were significantly correlated ($r = .33, p < .01$), partial correlations of implicit theories of personality with shame and guilt are also presented, controlling shame in correlations with guilt, and vice versa. It is important to remember throughout that, with respect to the implicit theory measures, higher scores are indicative of a greater incremental orientation, whereas lower scores are indicative of a stronger entity orientation. Consistent with the hypotheses, the Implicit Theory scale for Self was positively correlated with the Guilt scale. This correlation held when shame-proneness was partialled out. In addition, the relationship between incremental theory of others' personality with the tendency to experience guilt was marginally significant. Contrary to expectations, holding an entity theory of personality (i.e. personality is fixed and unchangeable) was not significantly related to a dispositional tendency to experience shame in response to interpersonal transgression, as evidenced by the lack of a significant negative correlation between the Implicit Theory scale and scores on the TOSCA sub-scale of Shame.

Table 5 shows the relations between the hypothetical scenario involving the experience of being the perpetrator of an interpersonal transgression and the Implicit

Theory measures. In response to the scenario involving being the perpetrator of an interpersonal transgression, entity theorists were predicted to be more likely to focus their negative evaluations on the entire, unchangeable self, externalize blame, express a desire to avoid the situation, and worry about potential negative evaluations of others.

Consistent with the hypotheses, the Implicit Theory of Self measure correlated negatively with the scenario question about avoiding the situation, suggesting that believing one's own personality is fixed is associated with a greater tendency to avoid directly dealing with situations in which one has been the perpetrator of an interpersonal transgression.

It was predicted that, in response to the scenario involving being the perpetrator of an interpersonal transgression, incremental theorists would be more likely to focus their negative evaluations on changeable behavior, take responsibility for their transgressions, take an active role in repairing the damage they have done, and demonstrate empathic thoughts regarding those they have wronged. The Implicit Theory scales for Self and Other correlated positively with the question involving feelings of empathy toward the victim in the scenario, suggesting that believing the personality of oneself and others can change is associated with empathic feelings in situations where one is the perpetrator of an interpersonal transgression.

Hypothesis #2: Holding an entity theory of personality will be related to a specific destructive pattern of response to anger elicited in scenarios where one is the victim of interpersonal transgression, whereas holding an incremental theory of personality will be associated with a constructive pattern of response.

Table 6 shows the relations between the hypothetical scenario involving the experience of being the victim of an interpersonal transgression and the Implicit Theory

measures. In scenarios where one was the victim of an interpersonal transgression, entity theorists were predicted to be more likely to expect to feel greater amount of overall anger, focus on global, trait evaluations for the behavior of the perpetrator, express the desire and intent to respond aggressively to the transgression, express the desire and intent to avoid the situation, and to expect permanent and negative long-term repercussions for the interpersonal relationship. Of these predicted responses, overall anger correlated negatively with the Implicit Theory scale for Self, with marginal significance. In addition, the scenario questions involving the desire and intent to avoid the situation correlated negatively with the Implicit Theory measures, significantly for Self and marginally for Other. Furthermore, the scenario question involving the intention to aggressively retaliate correlated negatively with the Implicit Theory of Self measure, albeit with marginal significance. Finally, the question involving expectations of long-term damage to the relationship correlated negatively with the Implicit Theory of Other measure, also with marginal significance. Taken as a whole, these findings lend support to the notion that holding an entity orientation regarding the nature of personality is associated with destructive and avoidant responses to anger resulting from being the victim of an interpersonal transgression.

In contrast, it was predicted that incremental theorists were predicted to be more likely to focus on understanding why the perpetrator behaved as they did, as well as express the desire and intent to constructively discuss the situation with the perpetrator. Support was not found for these hypotheses, as none of these constructive responses to anger correlated significantly positively with the Implicit Theory scale for Self or Other.

Hypothesis #3: Self-esteem should moderate the relationship between implicit theory of personality and externalization of blame (perpetrator scenario) and aggression (victim scenario).

It was hypothesized that an interaction would exist between self-esteem and Implicit Theory of personality (Self) on externalization of blame; that is, entity theorists with high levels of self-esteem were predicted to be the most likely to externalize blame. It was expected that entity theorists with high self-esteem would externalize blame in an attempt to defensively protect the fixed view of self from negative evaluation after being the perpetrator of an interpersonal transgression. This hypothesis was tested using moderated multiple regression analysis (Aiken & West, 1991). In the first step of the moderated multiple regression, the main effects of self-esteem and Implicit Theory scale for Self were considered. An interaction term was then created, consisting of the product of the standardized values of each of the two main effect variables. In the second step of the moderated multiple regression, this interaction term was entered into the regression equation. A significant R^2 change (ΔR^2) would be evidence of a moderator effect of self-esteem. The relationship between implicit theory of personality and externalization of blame was not moderated by self-esteem, as tested with the TOSCA sub-scale of Externalization of Blame ($\Delta R^2 = .01, n.s.$) and the hypothetical scenario question involving externalization of blame ($\Delta R^2 = .00, n.s.$).

It was also hypothesized that aggressive responses to anger would be moderated by self-esteem, with high self-esteem entity theorists demonstrating a greater tendency to express direct aggression as a response to anger elicited by the scenario involving the experience of being the victim of interpersonal transgression. Entity theorists with high

self-esteem were expected to be more likely to use direct aggression to defensively assert “moral superiority” over the perpetrator of interpersonal transgression. Following the same procedure as above, the relationship between implicit theory of personality and aggressive responses was not moderated by self-esteem, as tested with hypothetical scenario questions involving the desire to respond aggressively ($\Delta R^2 = .00, n.s.$) and the expectation of aggressive behavior ($\Delta R^2 = .00, n.s.$).

In summary, the findings of Study 1 lend partial support to the hypothesized relationship between implicitly held theories about the nature of personality characteristics and shame and guilt prone responses to situations involving interpersonal transgressions. Holding an incremental theory of personality (i.e. personality is changeable) was found to be associated both with general guilt-proneness and with the specific affective response of empathy in the situation of being the perpetrator of an interpersonal transgression. Holding an entity theory of personality (i.e. personality is fixed) was not associated with general shame-proneness, but was associated with a number of specific responses. In situations where one is the perpetrator of interpersonal transgression, holding an entity theory was associated with the response of avoidance of dealing with the situation. In situations where one is the victim, holding an entity theory was associated with heightened anger, retaliation, avoidance, and judgments of permanent relationship damage. Study 2 examines these hypotheses further, through the use of an experimental methodology.

Study 2

In Study 1, individuals' implicit theories of personality were obtained through the use of a questionnaire. In Study 2, the implicit theories of personality of participants were

experimentally manipulated and shame vs. guilt-prone responding was tested with the TOSCA and hypothetical scenarios used in Study 1.

Method

Participants

One hundred and twelve introductory psychology students (41 male, 71 female) from a small mid-Atlantic liberal arts university participated in Study 2 in groups of approximately 40 students. Participants ranged in age from 18 to 22 years, with the mean age being 19 years. Participants received course credit for participation.

Materials

Participants' implicit theories of personality were experimentally manipulated using a pair of articles that appear to describe scientific findings about the nature of personality (see Appendix F). This methodology has previously been found to be an effective means to manipulate implicit theories of personality (Chiu, Hong, & Dweck, 1997).

The articles were of similar length, tone and structure, and differed only on the dimension of specific content. One article, entitled "Personality, like plaster, is pretty stable over time", attempts to show, as the title suggests, that personality characteristics are largely fixed and unchangeable. The other article, entitled "Personality is changeable and can be developed", attempts to show personality as a developing entity over an individual's lifespan. Each article presented an argument for the specific theory of personality with reports of research findings, in an effort to show scientific support for the arguments presented.

Participants were also asked to read two scenarios describing interpersonal transgression (see Appendix C). The scenarios used were the same as those described earlier and used in Study 1.

Finally, as in Study 1, participants completed the short-form version of the Test of Self-Conscious Affect (TOSCA; see Appendix B).

Procedure

Study 2 consisted of two separate parts. In the first part of Study 2, the independent variable of participant's implicit self-theory of personality was manipulated. In the second part of Study 2, the dependent measures of responses to interpersonal transgression were obtained through scenarios provided by the experimenter.

Participants were seated in the room, and asked if they would be willing to participate in two separate studies. They were informed that this doubling up of studies is being done in an effort to save time and to conserve valuable participant resources. In the first of the two "separate" studies, the experimenter then described the first study as follows:

Much research has been done on how people read and comprehend traditional non-fictional writing sources, such as news articles. However, very few studies have looked at how people interpret scientific, technical writing. We are interested in whether people are able to comprehend scientific writing with the same degree of proficiency as non-technical writing. We would like you to read the following scientific article, and then answer some questions designed to evaluate your comprehension of the material. Your performance will be compared with that of another group, who is reading a non-technical article.

Participants were randomly assigned one of two psychological journal articles dealing with the nature of personality. In one article, personality was described as fixed and unchangeable, whereas the other article described personality as malleable. After reading the article and answering some comprehension questions about its content, participants were thanked by the first experimenter and told that the second study would begin shortly.

In the second part of Study 2, the new experimenter informed the participants that the second study was an independent study of “social judgment”. The experimenter described the second study as follows:

We are interested in how people respond to different types of social situations.

You will be provided with a set of social situations, and asked to characterize how you would respond in the situation through a series of questions. Please try to vividly imagine yourself in the situation provided, and answer as honestly as possible.

Participants were then provided with two scenarios describing interpersonal transgression. In one scenario, the participants were asked to imagine themselves as the victim of an interpersonal transgression; in the second scenario, the participants were asked to imagine themselves as the perpetrator of an interpersonal transgression (see Appendix C). The order of presentation of the two scenarios was counterbalanced across participants.

After reading each of the scenarios provided, participants then completed the scenario response questions appropriate to the specific scenario received. Participants also

completed the short-form of the TOSCA; the order of presentation of the TOSCA was counterbalanced with the presentation of the two scenarios.

Upon completion of the scenario questions and the TOSCA, participants were given a full, detailed debriefing (see Appendix F), and given the opportunity to ask any questions of the experimenter. Participants were then thanked for their participation in the study.

Results

Hypothesis #1: Being primed to hold an entity theory of personality will be related to a shame-prone pattern of cognitive, affective, and behavioral responses to being the perpetrator of an interpersonal transgression, whereas being primed to hold an incremental theory of personality will be associated with a guilt-prone pattern of response.

Table 7 displays summary statistics for the TOSCA sub-scales of Shame, Guilt, and Externalization of Blame in Study 2, separated by experimental implicit-theory group. This hypothesis was examined through a series of t-tests looking at mean differences between the experimental implicit-theory groups on the TOSCA scale and responses to the hypothetical scenarios. As shown in Table 7, participants who were primed to think that personality characteristics are fixed and unchangeable scored significantly higher on the TOSCA scales of shame-proneness, as compared to those participants who were primed to think that personality characteristics are changeable. No significant group differences emerged in TOSCA scales measuring tendencies to experience guilt or to externalize blame.

Table 8 contains analyses of mean group differences for responses to the questions about the hypothetical scenario involving an interpersonal transgression, separated by

experimental implicit-theory group. In this scenario, the participant was described as the perpetrator of the transgression. No significant differences emerged between experimental implicit-theory groups in their responses to the scenario questions.

Hypothesis #2: Being primed to hold an entity theory of personality will be related to a specific destructive pattern of response to anger elicited in scenarios where one is the victim of interpersonal transgression, whereas holding an incremental theory of personality will be associated with a constructive pattern of response.

Table 9 contains analyses of mean group differences between experimental groups in responses to the questions about the hypothetical scenario involving being a victim of an interpersonal transgression. Consistent with predictions, participants who were primed to think of personality as fixed and unchangeable responded significantly higher to the scenario question about severe and permanent damage to their relationship with the perpetrator of the transgression. In addition, participants primed to think of personality as fixed also scored significantly higher on the scenario question dealing with increased expectations of avoidance in dealing with the situation. This difference, however, was only marginally significant.

To summarize, as in Study 1, some theoretically consistent differences emerged between participants who hold the belief that personality is either fixed or changeable. First, support for a broad link between holding an entity theory of personality and general proneness to experience shame in response to interpersonal transgressions was found, as participants primed to hold the belief that personality characteristics are fixed demonstrated significantly higher scores on the TOSCA sub-scale of Shame. However, no differences emerged between entity and incremental theorists in the more specific

aspects of shame and guilt responses to being the perpetrator of interpersonal transgressions. In response to being the victim of interpersonal transgression, participants who were primed to perceive personality characteristics as fixed and unchangeable were found to be significantly more likely to predict a negative long-term prognosis for their relationship with the perpetrator of the interpersonal transgression, as compared with the prognosis of those participants who were primed to perceive personality characteristics as changeable. In addition, these entity theorists were slightly more likely to express the desire to avoid dealing with these situations. While this finding was only marginally significant, it mirrors a significant finding from Study 1.

General Discussion

The current studies sought to examine two main hypotheses regarding the relationship between implicit theories of personality and specific patterns of response to situations involving interpersonal transgression.

General Hypothesis #1: Holding an entity theory of personality will be associated with a shame-prone cognitive, affective, and behavioral pattern of response to being the perpetrator of an interpersonal transgression, whereas holding an incremental theory of personality will be associated with a guilt-prone cognitive, affective, and behavioral pattern of response.

Across both studies, the findings regarding this hypothesis were weak overall, but those findings that did emerge were consistent with expectations. First, consider the entity theorists' response to being the perpetrator of an interpersonal transgression. In Study 1, holding an entity theory of one's own personality was found to correlate with a single behavioral response to being the perpetrator of an interpersonal transgression, that

of avoidance of dealing with the situation. Study 2 provided further support for the hypothesized link for entity theorists, as being primed to hold an entity theory of personality lead to higher scores on the TOSCA sub-scale of Shame, suggesting that holding an entity theory of personality is related to proneness to experience shame in situations involving interpersonal transgression.

Limited but theoretically consistent support was also found for the link between holding an incremental theory of personality and specific responses to being the perpetrator of an interpersonal transgression. First, holding an incremental theory of personality was associated with overall proneness to experience guilt; as scores on the TOSCA sub-scale of Guilt correlated positively with the Implicit Theory scale. Furthermore, in Study 1, holding an incremental theory correlated specifically with empathic concern for the victim of the interpersonal transgression, one component of the expected guilt-prone pattern of response. As such, the findings of Study 1 provide limited support for the hypothesized link between holding an incremental theory of personality and proneness to experience guilt in situations involving interpersonal transgression. However, no support for this link was found in Study 2.

General Hypothesis #2: Holding an entity theory of personality will be associated with a destructive cognitive, affective, and behavioral pattern of response to anger resulting from being the victim of an interpersonal transgression, whereas holding an incremental theory of personality will be associated with constructive cognitive, affective, and behavioral responses.

Across both studies, limited support for this hypothesis was found. In Study 1, holding an entity theory of one's own personality correlated with expectations of overall anger

following victimization. In addition, holding an entity theory correlated with specific destructive behavioral responses to anger, those dealing with avoidance of the situation. Furthermore, holding an entity theory of others' personality correlated with the expectations of long-term damage to the interpersonal relationship. The findings of Study 2 replicated this avoidance pattern experimentally, as being primed to hold an entity theory of personality was found to be associated with greater endorsement of items dealing with avoidance of the situation and expectations of long-term damage to the relationship. Thus, across both studies, perceiving personality to be fixed was related to destructive responses to the anger resulting from victimized by others. No support was found in either study for the link between holding an incremental theory of personality and constructive responses to anger.

To summarize, the findings of Study 1 and Study 2 provide partial but theoretically consistent support for the notion that cognitive beliefs about the changeability of personality have important implications for how individuals deal with being the perpetrator and victim of situations involving interpersonal transgression. The following sections further discuss the most important patterns that emerged in the findings.

Entity Orientation and Avoidance

The most consistent finding that emerged in the current study was that of the strong association between holding an entity orientation and the behavioral response of avoidance in dealing with interpersonal transgression. Why might this link between entity theories of personality and avoidance be so strong? One possible explanation, consistent with prior research on implicit theories, is that entity theorists may be more likely to give up on difficult social situations. Given that entity theorists perceive personality

characteristics as fixed, they may perceive problems that arise in interpersonal relationships as being unavoidably confounded with the unchangeable nature of the people involved. They may be more likely to feel that these situations are out of their control, and therefore give up on making an active attempt to deal with the situation. In situations where one is the perpetrator of an interpersonal transgression, entity theorists may evaluate their behavior as reflecting an unchangeable, negative personality trait and avoid what they expect to be an inevitable punitive and retaliatory response from the victim of their behavior. Entity theorists may also avoid dealing with the situation if they perceive that their unchangeable and faulty personality would handicap any efforts to improve the situation. This avoidant behavior is counterproductive, as it does not facilitate repair of the relationship that has been potentially damaged by the interpersonal transgression.

In situations where one is the victim of the transgression, entity theorists may evaluate the negative behavior of others as reflecting unchangeable, negative personality traits. As such, entity theorists may actively avoid making any efforts to repair the situation with the perpetrator of the transgression, as they would feel that the perpetrator could not ever change. This active avoidance is a destructive response to anger, as it does not motivate positive and beneficial long-term outcomes for the relationship. Along these lines, it should be noted that entity theorists were more likely to hold expectations of negative long-term outcomes after being victimized by interpersonal transgression. Future research should further examine this maladaptive pattern of response for entity theorists in response to difficult interpersonal situations.

Unexpected Patterns in the Results

One pattern of findings that was expected was that of the cognitive assessment of the situations involving interpersonal transgression, as modeled after the Cognitive-Affective Personality System (Mischel & Shoda, 1995). The CAPS model emphasizes that involvement in relevant situations primes certain chronically accessible cognitive-affective units, such as implicit theories of personality. The priming of these implicit theories, in turn, would lead to different initial cognitive assessments of one's role in situations involving interpersonal transgression. Furthermore, these specific cognitive assessments should then lead to different affective and behavioral patterns of response to these situations. Following from this theoretical model, it was expected that holding a chronically accessible entity theory would lead to negative cognitive appraisals of the entire self, whereas holding an incremental theory was expected to be associated with negative cognitive appraisals of the specific behavior. However, support was not found for the expected associations between implicit theories of personality and specific cognitive assessments. Instead, the findings demonstrate links between implicit theories of personality and specific affective and behavioral responses to interpersonal transgression. For example, holding a general entity theory of personality was found to be associated consistently with the specific behavioral response of avoidance. Holding a general incremental theory of personality was found to be associated with the affective response of feeling empathy for the victim of interpersonal transgression. Future research should focus on further examining the sequence projected by the CAPS model, from implicit theories through cognitive appraisals to actual behavior, and to determine the actual significance of the initial cognitive appraisal of one's role in situations.

Another unexpected pattern that emerged across the studies was that of the different associations between the implicit theories of personality and the TOSCA scales of shame and guilt-proneness, depending on the particular methodology employed. In Study 1, holding an incremental implicit theory of personality was significantly related to proneness to experience guilt. However, holding an entity theory of personality was not significantly related to proneness to experience shame. Conversely, in Study 2, being primed to hold an entity theory of personality was associated with greater proneness to experience shame, whereas priming of an incremental theory did not lead to greater proneness to experience guilt. Future research should attempt to replicate these findings, and identify potential reasons why the correlational approach demonstrated the link between holding an incremental theory of personality and guilt, whereas the experimental approach demonstrated the link between holding an entity theory of personality and shame.

Finally, an unexpected pattern of findings emerged in terms of the implicit theory measures in their relations to the scenario responses. Implicit theories about the personality of the self and of others were assessed separately. It was expected that implicit beliefs about the self would be more relevant in situations where the self is the perpetrator of interpersonal transgression, as in these situations it was expected that the focus of negative cognitive assessment would be directed at aspects of the self. Likewise, it was expected that implicit theories about others would be more relevant in situations where one is the victim of an interpersonal transgression, as in these situations the focus of negative cognitive assessments would be directed at aspects of a specific other. Contrary to expectation, this distinction between the two implicit theory sub-scales in

responses to different types of scenarios was only partially supported by the findings of the study. This inconsistent pattern of association was especially evident in responses to the “Self-As-Victim” scenario. Why did the different forms of the implicit theory measure fail to be associated with different patterns of response? First, it should be noted that the measures of implicit theories about self and others were highly correlated ($r = .89$). While some degree of association was expected, due to the similarity between the forms of the measure, the unexpectedly high correlation between the two suggests that the two forms of the implicit theory measure are actually measuring the same global construct, a “general” implicit theory about the nature of personality. Furthermore, in looking at the relationships between the implicit theory measures and responses to the scenarios, in almost every case implicit theories of about the personality of self emerged as the “stronger” predictor of specific responses. This finding suggests that, if there is an important distinction between the implicit theories of the self or others, implicit theories about the self might be better equipped to measure the aforementioned “general” implicit theory of personality. Future research should investigate the distinction between implicit theories about the personality of self and others, and their differential utility as predictors of specific responses to interpersonal transgressions.

Methodological Issues and Concerns

Many of the aforementioned unexpected patterns of findings in the results may be attributable to issues with the methodology employed in the current study. One area of methodological improvement is that of the hypothetical scenarios. While the experimenters carefully created the scenario questions, using the theoretical background as the major guidelines for the follow-up questions, the scenarios were not pre-tested

before use in the study. As a result, flaws and ambiguities may exist in the wording of the scenarios and response items that could impact the validity of the responses in distinguishing between shame and guilt-prone responses. In fact, the validation analyses, relating the scenario response items to the TOSCA scales, were only partially supportive of the hypothesized patterns of association. While the perpetrator scenario was created by the experimenters, using the previous literature as the primary guidelines for generating an appropriate scenario, the victim scenario was adapted from a different study, where it had been designed to test counterfactual thought in response to specific social situations (Niedenthal et al., 1994). It is certainly possible that this important difference in how the two scenario measures were constructed may be one reason why the victim scenario seemed to be a more valid measure of responses to interpersonal transgression, and yield results that were more theoretically consistent than those of the perpetrator scenario. Ideally, both the victim and perpetrator scenarios and scenario questions should be pre-tested, validated and revised in order to effectively measure cognitive, affective, and behavioral responses to interpersonal transgressions.

Another, albeit general, area of methodological concern lies in the issue of social desirability. Why might social desirability be a particular threat to the measures of the current study? Participants were asked to report specific responses to interpersonal transgressions. These responses were either constructive, adaptive responses or destructive, maladaptive responses that followed from the events described in the scenario. In some cases, participants might not be willing to present themselves as someone who is likely to demonstrate a maladaptive response to interpersonal transgression, as this response could be interpreted as less socially desirable. Take for

example, the following scenario question: “I would think that I should not have lied to Patrick/Patricia, and that this was a hurtful thing to do to Patrick/Patricia”. Evidence for the potential threat of social desirability can be seen in responses to this scenario question, as almost every participant endorsed this item, regardless of their implicit theory of personality. Since social desirability was not assessed in the current study, it is not known exactly how it has affected the findings. Consequently, future research should address the potential threat of social desirability, specifically in the effects of social desirability on responses to situations involving interpersonal transgression.

Another area of potential concern is that of the Implicit Theory measures. The items in these scales are worded in an incremental fashion; that is, both entity and incremental items focus on the changeability of personality, and not on the notion that personality is fixed. For example, an incremental item from the current Implicit Theory measure read “Everyone, no matter who they are, can significantly change their behavior”. An example of an entity item from the current measure read “The kind of person you are is something very basic about you and it can’t be changed much.” In both cases, participants’ implicit theory of personality is established through responses to questions about the changeability of personality. The current version of the Implicit Theory scales does not include items reflecting endorsement of the notion that personality is not only hard to change, but that it is fixed. Future studies could improve on the methodology of the current study by including some true entity items in the Implicit Theory measure. In this methodology, true entity theorists would be classified as those participants who not only are low on endorsement of items about the changeability of personality, but high endorsers of items that make strong claims about the fixed nature of personality. It should

be noted that, in Study 2, the priming of a true entity orientation predicted a heightened shame-prone pattern of responses to interpersonal transgressions, suggesting that such an approach might be effective in increasing the likelihood that the entity-shame prone link could be established correlationally.

Narrative Accounts of Interpersonal Transgression

One major source of participant data that is yet to be analyzed is that of the narrative accounts of past experiences involving interpersonal transgressions. A follow-up study is being designed to examine these responses along the dimensions of shame, guilt, and externalization of blame, as discussed by Tangney (1995). The content of the narratives provided by the participants will be coded for various aspects of cognitive, affective and behavioral responses. For participants in the “self as perpetrator” condition, the content will be coded for items such as focus on whole self vs. focus on behavior; externalization of blame; intensity of negative emotion experienced; concern for the feelings of others; worry about the potential negative evaluations of others; and efforts to either repair or avoid dealing with the situation. For participants in the “self as victim” condition, narrative content will be coded for constructive and destructive responses to the anger elicited. Perhaps the vivid and personalized past involvement of the participant in an actual life situation will allow for a more applicable test of the hypothesized link between implicit theories of personality and patterns of response to interpersonal transgressions than is possible with the hypothetical scenario approach.

Conclusions

The current study found limited support for the hypothesized link between implicit theories about the nature of personality and predictable patterns of response following

interpersonal transgression. Holding the belief that personality characteristics are fixed and unchangeable was found to be associated with specific shame-prone responses, whereas holding the belief that personality characteristics are changeable was found to be associated with specific guilt-prone responses. Support for the hypothesized link was found in studies employing correlational and experimental methodologies.

The broad link that was established between holding the general belief that personality is fixed and unchangeable and the specific behavior of avoidance in response to difficult social situations is of particular importance. The pattern of avoidance on the part of entity theorists in situations involving interpersonal transgression is in line with the previously established helpless patterns of response by entity theorists in response to academic and social failure. Taken as a whole, the research on implicit theories seems to suggest that holding the general belief that personality is fixed is associated with an increased likelihood to readily accept failure and to “give up” in the face of difficult situations. This specific maladaptive response of giving up following difficult situations is troubling, as it does not promote the long-term benefits of improvement and learning from these situations for the individual. It may be helpful for entity theorists to engage in directed focus on the malleability of personality characteristics as it could, in the short term, help these individuals make more adaptive responses to difficult social situations, such as situations involving interpersonal transgression. Furthermore, the promotion of an effortful focus on the potential malleability of personality characteristics may lead to better long-term outcomes for individuals, as it may be possible to change one’s underlying implicit theory of personality. Perhaps, by emphasizing changeable aspects of one’s social world, entity theorists can learn to take on a more incremental perspective,

thereby enjoying the many adaptive benefits that have been associated with those who actively embrace the surprising diversity of human nature.

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Table 1

Summary Statistics for Scales Used in Study 1

<i>Measure</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>
Implicit Theory of Personality			
Self sub-scale	3.55	.93	99
Others sub-scale	3.52	.78	100
Test of Self-Conscious Affect (TOSCA)			
Shame sub-scale	2.81	.57	138
Guilt sub-scale	4.04	.48	138
Externalization of Blame sub-scale	2.18	.53	138

Table 2

Correlations of Responses to “Self-as-Perpetrator” Scenario Questions in Study 1 with
TOSCA Scales

<i>Scenario Question</i>	<i>TOSCA Scales</i>		
	<i>Shame</i>	<i>Guilt</i>	<i>Ext.</i>
Shame			
1. Negative evaluation of entire self	.47** (.40**)	.33** (.20*)	.04
4. Reported shame	.33** (.25**)	.30** (.22*)	.08
6. Externalization of blame	.00 (-.00)	.02 (.02)	.33**
8. Avoidance of situation	.17* (.23**)	-.14 (-.21*)	.02
9. Concern about potential negative evaluations of others	.30** (.22**)	.31** (.24**)	.16
Guilt			
2. Negative evaluation of behavior	.27** (.16+)	.39** (.34**)	-.03
3. Reported guilt	.25** (.18*)	.25** (.19*)	.09
5. Taking responsibility	-.10 (-.10)	-.03 (.00)	-.05
7. Actively seeking to repair	-.07 (-.15+)	.20* (.24**)	.05
10. Empathy	.37** (.25**)	.48** (.41**)	-.01

Note: Table item numbers correspond to item numbers in original questionnaire (See Appendix C); correlations reported in parentheses are partial correlations of shame controlling for guilt, and guilt controlling for shame, where appropriate.

* $p < .05$. ** $p < .01$. + $p < .10$.

Table 3

Correlations of Anger Responses to “Self-as-Victim” Scenario Questions in Study 1 with
TOSCA Scales

<i>Scenario Question</i>	<i>TOSCA Scales</i>		
	<i>Shame</i>	<i>Guilt</i>	<i>Ext.</i>
1. Overall Anger	.21* (.21*)	.01 (-.06)	.10
Constructive Anger Responses			
3. Focus on understanding the cause of behavior	.32** (.28**)	.18* (.09)	.04
6. Desire to discuss situation	.07 (-.09)	.43** (.43**)	-.01
7. Intention to discuss situation	.02 (-.17*)	.49** (.51**)	-.12
Destructive Anger Responses			
2. Focus on trait attributions for behavior	.17+ (.20*)	-.06 (-.12)	.24**
4. Desire to retaliate aggressively	.14 (.16+)	-.04 (-.09)	.12
5. Intention to retaliate aggressively	.07 (.10)	-.07 (-.10)	.08
8. Desire to avoid the situation	.32** (.39**)	-.14 (-.27**)	.01
9. Intention to avoid the situation	.14 (.22**)	-.22* (-.28**)	.19*
10. Permanent damage to the relationship	.18* (.19*)	-.02 (-.08)	.01

Note: Table item numbers correspond to item numbers in original questionnaire (See Appendix C); correlations reported in parentheses are partial correlations of shame controlling for guilt, and guilt controlling for shame, where appropriate.

* $p < .05$. ** $p < .01$. + $p < .10$.

Table 4

Correlations Between TOSCA Scales And Implicit Theory Scales

TOSCA Scales	<u>Implicit Theory of Personality Scales</u>	
	<i>Self</i>	<i>Others</i>
Shame sub-scale	.06 (-.07)	.00 (-.06)
Guilt sub-scale	.22* (.24*)	.20+ (.20+)
Externalization of Blame sub-scale	-.10	-.01

Note: Correlations reported in parentheses are partial correlations of shame controlling for guilt, and guilt controlling for shame, where appropriate.

* $p < .05$. + $p = .051$.

Table 5

Correlations of Responses to “Self-as-Perpetrator” Scenario Questions in Study 1 with
Implicit Theory Scales

<i>Scenario Question</i>	<i>Implicit Theory of Personality Scales</i>	
	<i>Self</i>	<i>Others</i>
Shame		
1. Negative evaluation of entire self	-.02	-.04
4. Reported shame	.05	.03
6. Externalization of blame	.05	.04
8. Avoidance of situation	-.24*	-.14
9. Concern about potential negative evaluations of others	-.04	-.03
Guilt		
2. Negative evaluation of behavior	.07	-.01
3. Reported guilt	-.02	-.02
5. Taking responsibility	.08	.08
7. Actively seeking to repair	.13	.06
10. Concern about how victim is feeling	.21*	.22*

Note: Table item numbers correspond to item numbers in original questionnaire (See Appendix C). Positive correlations are indicative of a stronger incremental association, negative correlations are indicative of a stronger entity association.

* $p < .05$.

Table 6

Correlations of Anger Responses to “Self-as-Victim” Scenario Questions in Study 1 with
Implicit Theory Scales

<i>Scenario Question</i>	<i>Implicit Theory of Personality Scales</i>	
	<i>Self</i>	<i>Others</i>
1. Overall Anger	-.17+	-.08
Constructive Anger Responses		
3. Focus on understanding the cause of behavior	.00	.05
6. Desire to discuss situation	.10	.08
7. Intention to discuss situation	.07	.02
Destructive Anger Responses		
2. Focus on trait attributions for behavior	-.14	-.06
4. Desire to retaliate aggressively	-.12	.04
5. Intention to retaliate aggressively	-.19+	-.10
8. Desire to avoid the situation	-.29**	-.18+
9. Intention to avoid the situation	-.23*	-.17+
10. Permanent damage to the relationship	-.15	-.18+

Note: Table item numbers correspond to item numbers in original questionnaire (See Appendix C). Positive correlations are indicative of a stronger incremental association, negative correlations are indicative of a stronger entity association

* $p < .05$. ** $p < .01$. + $p < .10$

Table 7

Mean Difference Comparisons of Experimental Implicit Theory Groups on TOSCAScales

<i>Measure</i>	<i>“Fixed” group</i>	<i>“Changeable” group</i>	<i>df</i>	<i>t</i>
	<i>(n = 58)</i>	<i>(n = 54)</i>		
TOSCA				
Shame	3.09 (<i>SD</i> = .72)	2.77 (<i>SD</i> = .66)	110	2.41*
Guilt	4.17 (<i>SD</i> = .40)	4.13 (<i>SD</i> = .44)	110	.56
Extern. of Blame	2.04 (<i>SD</i> = .47)	2.15 (<i>SD</i> = .50)	110	-1.12

* $p < .05$.

Table 8

Mean Comparisons of Responses to “Self-as-Perpetrator” Scenario Questions in Study 2

<i>Scenario Question</i>	<i>“Fixed” group</i> (<i>n</i> = 58)	<i>“Changeable” group</i> (<i>n</i> = 54)	<i>t</i>
Shame			
1. Negative evaluation of entire self	4.10 (<i>SD</i> = 1.65)	4.28 (<i>SD</i> = 1.46)	-.59
4. Reported shame	4.48 (<i>SD</i> = 1.66)	4.87 (<i>SD</i> = 1.52)	-1.29
6. Externalization of blame	3.50 (<i>SD</i> = 1.98)	3.24 (<i>SD</i> = 1.60)	.76
8. Avoidance of situation	3.03 (<i>SD</i> = 1.65)	2.98 (<i>SD</i> = 1.68)	1.68
9. Concern about potential negative evaluations of others	4.79 (<i>SD</i> = 1.87)	4.78 (<i>SD</i> = 1.62)	.05
Guilt			
2. Negative evaluation of behavior	5.60 (<i>SD</i> = 1.30)	5.69 (<i>SD</i> = 1.21)	-.34
3. Reported guilt	5.24 (<i>SD</i> = 1.37)	5.59 (<i>SD</i> = 1.25)	-1.41
5. Taking responsibility	5.72 (<i>SD</i> = 1.25)	5.96 (<i>SD</i> = 1.08)	-1.08
7. Actively seeking to repair	5.52 (<i>SD</i> = 1.37)	5.52 (<i>SD</i> = 1.54)	-.01
10. Concern about how victim is feeling	5.76 (<i>SD</i> = 1.34)	5.63 (<i>SD</i> = 1.22)	.53

Note: Table item numbers correspond to item numbers in original questionnaire (See Appendix C); *df* = 110 for all analyses in Table 8.

Table 9

Mean Comparisons of Responses to “Self-as-Victim” Scenario Questions in Study 2

<i>Scenario Question</i>	<i>“Fixed” group</i> (<i>n</i> = 58)	<i>“Changeable” group</i> (<i>n</i> = 53)	<i>t</i>
1. Overall Anger	4.48 (<i>SD</i> = 1.56)	4.28 (<i>SD</i> = 1.57)	.67
Constructive Anger Responses			
3. Focus on understanding the cause of behavior	5.24 (<i>SD</i> = 1.58)	4.79 (<i>SD</i> = 1.76)	1.42
6. Desire to discuss the situation	5.95 (<i>SD</i> = 1.37)	5.75 (<i>SD</i> = 1.47)	.72
7. Intention to discuss situation	5.62 (<i>SD</i> = 1.42)	5.47 (<i>SD</i> = 1.56)	.53
Destructive Anger Responses			
2. Focus on trait attributions of behavior	3.74 (<i>SD</i> = 1.76)	3.24 (<i>SD</i> = 1.49)	1.59
4. Desire to retaliate aggressively	2.62 (<i>SD</i> = 1.44)	2.37 (<i>SD</i> = 1.46)	.89
5. Intention to retaliate aggressively	1.60 (<i>SD</i> = 1.09)	1.72 (<i>SD</i> = 1.31)	-.50
8. Desire to avoid the situation	3.02 (<i>SD</i> = 1.49)	2.51 (<i>SD</i> = 1.44)	1.82+
9. Intention to avoid the situation	2.50 (<i>SD</i> = 1.57)	2.28 (<i>SD</i> = 1.35)	.78
10. Permanent damage to relationship	2.53 (<i>SD</i> = 1.39)	1.98 (<i>SD</i> = 1.23)	2.21*

Note: Table item numbers correspond to item numbers in original questionnaire (See Appendix C); *df* = 109 for all analyses in Table 9.

* $p < .05$. + $p = .07$.

Appendix A: “Kind of Person” Implicit Theory Measure

“Others” scale for adults

Using the scale below, please indicate the extent to which you agree or disagree with each of the following statements by writing the number that corresponds to your opinion in the space next to each statement.

1	2	3	4	5	6
Strongly Agree	Agree	Mostly Agree	Mostly Disagree	Disagree	Strongly Disagree

_____ 1. The kind of person someone is, is something very basic about them and it can't be changed much.

_____ 2. People can do things differently, but the important parts of who they are can't really be changed.

_____ 3. Everyone, no matter who they are, can significantly change their behavior.

_____ 4. As much as I hate to admit it, you can't teach an old dog new tricks. People can't really change their deepest attributes.

_____ 5. People can always substantially change the kind of person they are.

_____ 6. Everyone is a certain kind of person, and there is not much that can be done to really change that.

_____ 7. No matter what kind of person someone is, they can always change very much.

_____ 8. All people can change even their most basic qualities.

“Self” scale for adults

Using the scale below, please indicate the extent to which you agree or disagree with each of the following statements by writing the number that corresponds to your opinion in the space next to each statement.

1	2	3	4	5	6
Strongly Agree	Agree	Mostly Agree	Mostly Disagree	Disagree	Strongly Disagree

_____ 1. The kind of person you are is something very basic about you and it can't be changed much.

_____ 2. You can do things differently, but the important parts of who you are can't really be changed.

_____ 3. You, no matter who you are, can significantly change your behavior.

_____ 4. As much as I hate to admit it, you can't teach an old dog new tricks. You can't really change your deepest attributes.

_____ 5. You can always substantially change the kind of person you are.

_____ 6. You are a certain kind of person, and there is not much that can be done to really change that.

_____ 7. No matter what kind of person you are, you can always change very much.

_____ 8. You can change even your most basic qualities.

Appendix B: Test of Self-Conscious Affect (TOSCA): Short-form Version

Below are situations that people are likely to encounter in day-to-day life, followed by several common reactions to those situations.

As you read each scenario, try to imagine yourself in that situation. Then indicate how likely you would be to react in each of the ways described.

We ask you to rate all responses because people may feel or react more than one way to the same situation, or they may react different ways at different times.

For example:

- A. You wake up early one Saturday morning. It is cold and rainy outside.
- a) You would telephone a friend to catch up on news. 1---2---3---4---5
not likely very likely
- b) You would take the extra time to read the paper. 1---2---3---4---5
not likely very likely
- c) You would feel disappointed that it's raining. 1---2---3---4---5
not likely very likely
- d) You would wonder why you woke up so early. 1---2---3---4---5
not likely very likely

In the above example, I've rated ALL of the answers by circling a number. I circled a "1" for answer (a) because I wouldn't want to wake up a friend very early on a Saturday morning -- so it's not at all likely that I would do that. I circled a "5" for answer (b) because I almost always read the paper if I have time in the morning (very likely). I circled a "3" for answer (c) because for me it's about half and half. Sometimes I would be disappointed about the rain and sometimes I wouldn't -- it would depend on what I had planned. And I circled a "4" for answer (d) because I would probably wonder why I had awakened so early.

Please do not skip any items -- rate all responses.

1. You make plans to meet a friend for lunch. At 5 o'clock, you realize you stood him up.

- a) You would think: "I'm inconsiderate." 1---2---3---4---5
not likely very likely
- b) You would think: "Well, they'll understand." 1---2---3---4---5
not likely very likely
- c) You'd think you should make it up to him as soon as possible.
1---2---3---4---5
not likely very likely
- d) You would think: "My boss distracted me just before lunch."
1---2---3---4---5
not likely very likely

2. You break something at work and then hide it.

- a) You would think: "This is making me anxious." I need to either fix it or get someone else to." 1---2---3---4---5
not likely very likely
- b) You would think about quitting. 1---2---3---4---5
not likely very likely
- c) You would think: "A lot of things aren't made very well these days." 1---2---3---4---5
not likely very likely
- d) You would think: "It was only an accident." 1---2---3---4---5
not likely very likely

3. At work, you wait until the last minute to plan a project, and it turns out badly.

- a) You would feel incompetent. 1---2---3---4---5
not likely very likely
- b) You would think: "There are never enough hours in the day." 1---2---3---4---5
not likely very likely
- c) You would feel: "I deserve to be reprimanded for mismanaging the project." 1---2---3---4---5
not likely very likely
- d) You would think: "What's done is done." 1---2---3---4---5
not likely very likely

4. You make a mistake at work and find out a co-worker is blamed for the error.

- a) You would think the company did not like the co-worker. 1---2---3---4---5
not likely very likely
- b) You would think: "Life is not fair." 1---2---3---4---5
not likely very likely
- c) You would keep quiet and avoid the co-worker. 1---2---3---4---5
not likely very likely
- d) You would feel unhappy and eager to correct the situation. 1---2---3---4---5
not likely very likely

5. While playing around, you throw a ball and it hits your friend in the face.

- a) You would feel inadequate that you can't even throw a ball. 1---2---3---4---5
not likely very likely
- b) You would think maybe your friend needs more practice at catching. 1---2---3---4---5
not likely very likely
- c) You would think: "It was just an accident." 1---2---3---4---5
not likely very likely
- d) You would apologize and make sure your friend feels better. 1---2---3---4---5
not likely very likely

6. You are driving down the road, and you hit a small animal.

- a) You would think the animal shouldn't have been on the road. 1---2---3---4---5
not likely very likely
- b) You would think: "I'm terrible." 1---2---3---4---5
not likely very likely
- c) You would feel: "Well, it was an accident." 1---2---3---4---5
not likely very likely
- d) You'd feel bad you hadn't been more alert driving down the road. 1---2---3---4---5
not likely very likely

7. You walk out of an exam thinking you did extremely well. Then you find out you did poorly.

- a) You would think: "Well, it's just a test." 1---2---3---4---5
not likely very likely
- b) You would think: "The instructor doesn't like me." 1---2---3---4---5
not likely very likely
- c) You would think: "I should have studied harder." 1---2---3---4---5
not likely very likely
- d) You would feel stupid. 1---2---3---4---5
not likely very likely

8. While out with a group of friends, you make fun of a friend who's not there.

- a) You would think: "It was all in fun; it's harmless." 1---2---3---4---5
not likely very likely
- b) You would feel small...like a rat. 1---2---3---4---5
not likely very likely
- c) You would think that perhaps that friend should have been there to defend himself/herself. 1---2---3---4---5
not likely very likely
- d) You would apologize and talk about that person's good points. 1---2---3---4---5
not likely very likely

9. You make a big mistake on an important project at work. People were depending on you, and your boss criticizes you.

- a) You would think your boss should have been more clear about what was expected of you. 1---2---3---4---5
not likely very likely
- b) You would feel like you wanted to hide. 1---2---3---4---5
not likely very likely
- c) You would think: "I should have recognized the problem and done a better job." 1---2---3---4---5
not likely very likely
- d) You would think: "Well, nobody's perfect." 1---2---3---4---5
not likely very likely

10. You are taking care of your friend's dog while they are on vacation and the dog runs away.

a) You would think, "I am irresponsible and incompetent."
1---2---3---4---5
not likely very likely

b) You would think your friend must not take very good care of their dog or it wouldn't have run away.
1---2---3---4---5
not likely very likely

c) You would vow to be more careful next time.
1---2---3---4---5
not likely very likely

d) You would think your friend could just get a new dog.
1---2---3---4---5
not likely very likely

11. You attend your co-worker's housewarming party and you spill red wine on their new cream-colored carpet, but you think no one notices.

a) You think your co-worker should have expected some accidents at such a big party.
1---2---3---4---5
not likely very likely

b) You would stay late to help clean up the stain after the party.
1---2---3---4---5
not likely very likely

c) You would wish you were anywhere but at the party.
1---2---3---4---5
not likely very likely

d) You would wonder why your co-worker chose to serve red wine with the new light carpet.
1---2---3---4---5
not likely very likely

Self-As-Victim (Male Version):

You have recently become involved with a new person, Chris. For a first date, you suggest to Chris that you attend a party together. You decide to invite your good friend, Jeff, to come along. You and Chris have a good time at the party together. The following day, you bump into another friend who had been at the party and he asks if you noticed how much Jeff and Chris were flirting with each other.

Rate how likely you would be to experience each of the following reactions:

- | Not likely at all | Somewhat Likely | Very Likely |
|---|-----------------|-------------|
| 1 ----- | 3 ----- | 6 ----- |
| 2 ----- | 4 ----- | 7 ----- |
| 5 ----- | | |
| 1) I would feel angry with Jeff. | | _____ |
| 2) I would think that Jeff's "true colors" had come out in this situation. | | _____ |
| 3) I would wonder why Jeff behaved the way he did. | | _____ |
| 4) I would want to hurt or get back at Jeff for betraying me. | | _____ |
| 5) I would hurt or get back at Jeff for betraying me. | | _____ |
| 6) I would want to talk to Jeff and hear what he had to say about the situation. | | _____ |
| 7) I would talk to Jeff, and hear what he had to say about the situation. | | _____ |
| 8) I would want to avoid Jeff, rather than deal with the situation directly. | | _____ |
| 9) I would avoid Jeff, rather than deal with the situation directly. | | _____ |
| 10) I would feel like my relationship with Jeff was severely damaged and could never be the same. | | _____ |

Self-As-Victim (Female Version):

You have recently become involved with a new person, Chris. For a first date, you suggest to Chris that you attend a party together. You decide to invite your good friend, Jenn, to come along. You and Chris have a good time at the party together. The following day, you bump into another friend who had been at the party and she asks if you noticed how much Jenn and Chris were flirting with each other.

Rate how likely you would be to experience each of the following reactions:

- | Not likely at all | Somewhat Likely | Very Likely |
|---|-----------------|-------------|
| 1 ----- | 3 ----- | 6 ----- |
| 2 ----- | 4 ----- | 7 ----- |
| 1) I would feel angry with Jenn. | | _____ |
| 2) I would think that Jenn's "true colors" had come out in this situation. | | _____ |
| 3) I would wonder why Jenn behaved the way she did. | | _____ |
| 4) I would want to hurt or get back at Jenn for betraying me. | | _____ |
| 5) I would hurt or get back at Jenn for betraying me. | | _____ |
| 6) I would want to talk to Jenn and hear what she had to say about the situation. | | _____ |
| 7) I would talk to Jenn and hear what she had to say about the situation. | | _____ |
| 8) I would want to avoid Jenn, rather than deal with the situation directly. | | _____ |
| 9) I would avoid Jenn, rather than deal with the situation directly. | | _____ |
| 10) I would feel like my relationship with Jenn was severely damaged and could never be the same. | | _____ |

Appendix D: Personal Narrative Questionnaires

Self-As-Perpetrator

Think of a time in your life when you committed an “interpersonal transgression.” An interpersonal transgression involves violating your own moral or ethical value system by somehow wronging or harming another person. In the space provided below, please describe what happened, including what you did wrong, how you thought and felt about what you did, and how you dealt with the situation.

Follow-up Questions about Interpersonal Transgression

Rate the degree to which each of the statements below was true of you in your reaction to the situation you described on the previous page:

Not at all true	Somewhat true	Very true
1 ----- 2 -----	3 ----- 4 -----	5 ----- 6 ----- 7

- 1) I felt guilty for what I had done in this situation. _____
- 2) I felt ashamed of myself. _____
- 3) I thought that I should not have done what I did in this situation. _____
- 4) I thought that I was a bad person to have done what I did in this situation. _____
- 5) I felt that my actions were completely to blame for what happened. _____
- 6) I didn't see the situation as totally my fault; other people were to blame as well. _____
- 7) I tried to work things out with those whom I wronged in the situation. _____
- 8) I avoided the person I wronged rather than dealing with the situation directly. _____
- 9) I was worried about the other person and the impact of my actions on his or her feelings. _____
- 10) I worried about what others would think of me if they learned of my actions. _____

Self-As-Victim

Think of a time in your life when you were the victim of an “interpersonal transgression.” Being the victim of an interpersonal transgression involves being somehow wronged or harmed by another person. In the space provided below, please describe what happened, including what the other person did to you, how you thought and felt about what that person did, and how you dealt with the situation.

Follow-up Questions about Interpersonal Transgression

Rate the degree to which each of the statements below was true of you in your reaction to the situation you described on the previous page:

Not at all true	Somewhat true	Very true
1 ----- 2 -----	3 ----- 4 ----- 5 -----	6 ----- 7

- 1) I felt angry with the person who harmed me. _____
- 2) I thought that the person’s “true colors” had come out in this situation. _____
- 3) I wondered why the person behaved the way he/she did. _____
- 4) I wanted to hurt or get back at the person for harming me. _____
- 5) I did hurt or get back at the person for harming me. _____
- 6) I wanted to talk to the person and hear what he/she had to say about the situation. _____
- 7) I did talk to the person and heard what he/she had to say about the situation. _____
- 8) I wanted to avoid the person who harmed me, rather than deal with the situation directly. _____
- 9) I avoided the person who harmed me, rather than deal with the situation directly. _____
- 10) I felt like my relationship with the person was severely damaged and could never be the same. _____

Appendix F: Verbatim Scripts and Debriefing

Study 1

Session A Instructions:

Introduction: “My name is Matthew Dohn, and I am conducting research for my Master’s thesis on interpersonal transgression. This study will take place over two half-hour sessions, and you will receive 1 hour of credit upon completion of both sessions. If you do decide to participate in the study, it is important that you attend both ½ hour sessions. Your responses to all aspects of this study will be kept completely confidential, and your participation is completely voluntary. If, at any point in the study, you wish to terminate your participation, you may do so without penalty. In addition, if you would like to be informed of the results of the study, you will be given the opportunity to provide your email/campus address at the end of the second session. A summary of the results of the study will then be provided for you upon completion of the entire study.

As part of the study, you will be asked to provide accounts of past situations from your life involving interpersonal transgression, and describe your reactions to these situations. I want to stress that interpersonal transgressions are normal occurrences in people’s lives, and we are interested solely in these common events.

I will now pass out the consent forms. Please read this form completely, and if you are willing to participate, please sign where indicated.”

[Hand out & collect consent forms]

[Hand out narrative scenario questionnaires]

Perpetrator condition: “Think of a time in your life when you committed an “interpersonal transgression.” An interpersonal transgression involves violating your

own moral or ethical value system by somehow wronging or harming another person. In the space provided below, please describe what happened, including what you did wrong, how you thought and felt about what you did, and how you dealt with the situation.”

Victim condition: “Think of a time in your life when you were the victim of an “interpersonal transgression.” Being the victim of an interpersonal transgression involves being somehow wronged or harmed by another person. In the space provided below, please describe what happened, including what the other person did to you, how you thought and felt about what that person did, and how you dealt with the situation.”

[Collect narrative scenario questionnaires]

Session B Instructions:

Introduction: “This is the second session of the study that you began two days ago. Once again, I’d like to remind you that your responses to all aspects of this study will be kept confidential, and your participation is completely voluntary. If, at any point in the study, you wish to terminate your participation, you may do so without penalty. I am now going to hand out the materials for this second session. Please read the instructions carefully, and then complete the materials.”

[Hand out TOSCA & experimenter provided scenarios]

TOSCA: “Below are situations that people are likely to encounter in day-to-day life, followed by several common reactions to those situations. As you read each scenario, try to imagine yourself in that situation. Then indicate how likely you would be to react in each of the ways described. We ask you to rate all responses because people may feel or react more than one way to the same situation, or they may react different ways at different times.”

Experimenter provided scenarios: “Please read the following scenarios, and answer the following questions with respect to how you would think and feel about your friend and deal with what he or she did in response to the previous scenario.”

[Collect TOSCA and experimenter provided scenarios]

Debriefing: “In this study, we were interested in how individuals’ implicit theories of personality may relate to their responses to interpersonal transgression. We think that whether a person believes personality characteristics to be fixed or changeable may have implications for their thoughts, feelings, and actions following situations that involve interpersonal transgressions. For example, holding the belief that personality is changeable and dynamic is thought to be associated with adaptive and constructive thoughts and behaviors designed to minimize negative consequences following interpersonal transgression. As part of Mass Testing, you completed measures designed to establish your belief in the fixed vs. dynamic nature of personality. In order to examine these questions, it was necessary for us to collect your student identification numbers on the questionnaires, so that your earlier responses to the mass testing materials could be matched with your responses to the present study. As I mentioned before, all of your responses to all aspects of the study will be kept completely confidential. My faculty advisor will match your responses to both measures, and then recode your information using a new identification number. These steps will be taken to ensure the confidentiality of all responses in this study. Do you have any questions? We ask that you please not discuss any aspect of this study with others who might potentially take part in the near future, and thank you for participating.”

Study 2

Introduction: “Today, you will be participating in two independent studies. Each study will take ½ hour, and you will receive 1 hour of credit for participating in both studies. We are doubling up these two studies in an effort to save time, and to conserve valuable participant resources. However, if you do decide to participate, it is important that you take part in both ½ hour sessions. Given that these are two independent studies, you will be asked to provide consent for each study separately.”

Study A: “Much research has been done on how people read and comprehend traditional non-fictional writing sources, such as news articles. However, very few studies have looked at how people interpret scientific, technical writing. We are interested in whether people are able to comprehend scientific writing with the same degree of proficiency as non-technical writing. We would like you to read the following scientific article, and then answer some questions designed to evaluate your comprehension of the material. Your performance will be compared with that of another group, who is reading a non-technical article. Your responses to all aspects of this study will be kept confidential, and your participation is completely voluntary. If, at any point during the study, you wish to terminate your participation, you may do so without penalty. In addition, if you would like to be informed of the results of the study, please provide your email/campus address on the consent form. A summary of the results of this study will then be provided for you upon completion of the study. I will now pass out the consent forms. Please read this form completely, and if you are willing to participate, please sign where indicated.”

[Hand out and collect consent forms]

[Hand out journal article and comprehension questions]

Mock debriefing: “Thank you for participating in this study of comprehension of technical writing. Once again, we are interested in how comprehension of scientific writing may differ from other, non-technical writing styles. Do you have any questions about this study? Thank you for participating in this study; the second study will begin shortly.”

[First experimenter leaves; second experimenter enters]

Study B: “In this study, we are interested in how people respond to different types of social situations. You will be provided with two social situations, and asked to characterize how you would respond in the situation through a series of questions. Please try to vividly imagine yourself in the situation provided, and answer as honestly as possible. Your responses to all aspects of this study will be kept confidential, and your participation is completely voluntary. If, at any point during the study, you wish to terminate your participation, you may do so without penalty. In addition, if you would like to be informed of the results of the study, please provide your email/campus address on the consent form. A summary of the results of this study will then be provided for you upon completion of the study. I will now pass out the consent forms. Please read this form completely, and if you are willing to participate, please sign where indicated.”

[Hand out and collect second consent form]

Experimenter provided scenarios: “Please read the following scenarios, and answer the following questions with respect to how you would think and feel about your friend and deal with what he or she did in response to the previous scenario.”

[Hand out experimenter provided scenarios]

Full debriefing: “In this study, we were interested in how individuals’ implicit theories of personality may relate to their responses to interpersonal transgression. We think that whether a person believes personality characteristics to be fixed or changeable may have implications for their thoughts, feelings, and actions following situations that involve interpersonal transgressions. This study was designed to test this hypothesis. Although we originally told you that the two studies were completely independent, the two are actually related. This deception was necessary for us to be able to investigate the influence of the content of the articles on your responses. In the first study, we asked you to read one of two articles that attempted to present an argument for either the fixed or dynamic nature of personality. These two articles are not real journal articles, nor do they present a true authoritative position on the nature of personality. Current research on the nature of personality has not demonstrated one clear perspective on the changeability of personality. In the second study, we then asked you to respond to situations involving interpersonal transgression. We will look at how the scientific article you read might have affected your responses to these scenarios involving interpersonal transgression. For example, did reading an article that claimed personality is changeable lead you to make attributions about the described actions of others to changeable aspects such as behavior? Do you have any questions? We ask that you please not discuss this study with others who might take part in the near future, and thank you for participating.”

Appendix G: Mock Journal Articles Priming Implicit Theories of Personality

Personality, like plaster, is pretty stable over time

by Ruth Adler

WASHINGTON

When she was young, Mary S.* would not leave her mother to make friends with other children. Later, when she grew up, she had difficulty getting along with people. In her late forties, she was still single and led a lonely life.

Benjamin M. exhibited a lot of self-discipline even during his early childhood. When he was four-years old, he didn't need his parents to urge him to get dressed in the morning or to go to bed at night. Later, in school, he always had a well-planned study schedule and was better prepared for examinations than the other students.

These cases were among the eight hundred and twelve cases that researchers have collected at the Personality and Development Unit at Stanford University, and they are typical examples of personality development.

Does personality change?

Researchers at the Personality and Development Unit at Stanford University (PDU) are interested in the origins of personality characteristics and how they develop over an individual's life. To collect cases for the data bank, these researchers launched a large scale longitudinal (that is, long-term) study.

For more than twenty five years, the PDU has been following over eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, school records, extensive observations at home and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In a recent article published in the *Journal of Personality Research*, Dr. Lawrence Rescorla, the director of PDU, reported the findings of their extensive case study research.

*To protect their privacy, the real names of the individuals involved were changed.

As was observed repeatedly, Dr. Rescorla concluded that "personality characteristics seem to be rather fixed and to develop consistently along the same path over time." He found that

"... personality characteristics seem to be rather fixed and to develop consistently along the same path over time."

people's personality characteristics can be conceived as fixed entities. "Personality characteristics might start as a bundle of potentialities, but in the early years, the potentials appear to consolidate into a cohesive personality profile," he wrote. He argued that "this profile may manifest itself in a clearer behavioral pattern when people grow older, yet the underlying profile does not seem to change over time.

Similar conclusions were drawn by Dr. Paul Medin, a psychologist at the National Institute on Mental Health. In his speech at the American Psychological Association's annual convention held in Washington, D.C. in August, Dr. Medin argued that "in most of us, by the age of ten, our character has set like plaster and will never soften again." He reported numerous large longitudinal studies which show that people "age and develop, but they do so on the foundation of enduring dispositions."

Dr. Medin's conclusions about personality are based on six longitudinal studies published between 1978 and 1992, including two of his own. All six had considerably different samples and rationales, but "were nearly unanimous in their conclusions on the stability of personality," he said.

He also reported research findings showing that basic tendencies usually stabilize at a very young age, somewhere between 5 and 10 years old.

These studies, together with many others, have made clear the fact that people's personality consolidates at a early age and is relatively stable thereafter. □

(continued on page 7)

(continued from page 2)

Can external influences change personality?

According to Dr. Medin, external influences are not able to change personality, but they may be able to affect other characteristics such as specific skills or isolated habits. Yet, these characteristics change only "in ways that are consistent with the individuals underlying personality," Dr. Medin said.

Similar conclusions were echoed by other researchers in the field. For example, Dr. Russell Kelley, a professor at UCLA, has done extensive research on how the environment can

". . . in most of us, by the age of ten, our character has set like plaster and will never soften again."

affect people's behavior even though it doesn't really affect their underlying personality. He used the metaphor of how people would behave in a church and at a rock-music concert. "Of course, people would behave very differently in these two situations. But it does not mean that their underlying dispositions have changed. In fact, my research findings indicate that, sometimes a change in environment seems to affect behavior, but it does not change people's underlying personality a bit," Dr. Kelley added.

Indeed, the fact that personality does not really change was documented a long time ago. One classic example is the Cambridge-Somerville Youth Study. In 1935 Richard Clark Cabot established one of the most ambitious and exciting intervention programs ever conceived. It was designed to serve the needs of youngsters whose past behaviors indicated that they were prime candidates for delinquency and criminality. The youngsters were 250 boys from working-class families in a densely populated area of eastern Massachusetts, many of whom were specifically judged by schools, police, or welfare agencies to be "at risk." They entered the program at ages ranging from 5 to 13 and then continued in it for an average of five years.

During that time the intervention program combined psychotherapy and other kinds of assistance. Caseworkers visited each child twice a month and provided whatever assistance seemed warranted, including, in

roughly one-third of the cases, active involvement in family conflicts. For 50 percent of the boys, the caseworkers arranged for tutoring in academic subjects. Over 100 boys, or roughly 40 percent of the sample, received medical or psychiatric attention. Social and recreational needs were similarly addressed. In short, the program was a multifaceted, long duration intervention.

Despite the huge investment of effort and money, the results of the intervention were disappointing. Compared to the youngsters who were also "at risk" but were not in the program, those who had the intervention were equally likely to commit juvenile offenses. Later, in their adulthood, many of them committed crimes — roughly 15 to 20 percent of them committed serious offenses against people or property, while over 50 percent of them committed minor offenses.

Results from the Cambridge-Somerville study again indicate that a person's personality is hard to change. Many other research intervention programs have yielded similar results.

Then, why are people spending millions of dollars each year on psychotherapy? The answer according to some experts in the field is:

". . . perhaps psychotherapy can sometimes suppress behaviors on the surface, but it does not seem to be able to change people's dispositions."

Although psychotherapy may not be able to change personality, it is effective in changing some superficial behaviors provided that the patients are motivated to change them.

According to Dr. Martin Cooper, an eminent psychologist from Harvard University, psychotherapy creates change "by teaching the patients some new skills." For example, there are children who are over-sensitive to social cues, too often interpreting them as signs of hostility. They thus respond to them aggressively. "Some of these children, with long-term targeted instruction," Dr. Cooper explained, "can be taught some self-regulatory skills to control these aggressive behaviors."

Has personality changed in this example?

"Not really. The personality repertoire is still there, but it won't get called on as often," Dr. Cooper said. The bottom line, according to Dr. Cooper, is "perhaps psychotherapy can sometimes suppress behaviors on the surface, but it does not seem to be able to change people's dispositions."□

Many historically significant figures possessed a stable personality too.

Interestingly, stable personality has been found to be the rule for significant figures in history, whether they be famous or infamous. Dr. Marsha Schneider, a historian at the University of Chicago, has done research on the personality of important historical figures. Her research is based largely on biographies and published interviews with these individuals.

In her article, appearing in the last December issue of the *American Historian*, she reported that "many significant figures in history displayed their key personality characteristics at an early age. These characteristics often served as a strong force to guide them through their life to achieve greatness or to create destruction."

She mentioned several examples, one being Mother Teresa. According to the people who knew her as a child in the village where she was born, she often took care of other children, even those who were older than she. Also, instead of playing with other children, she spent most of her time volunteering at the local clinic. "Mother Teresa, even when she was very young, displayed a strong empathy for others' feelings and a willingness to help even when self-sacrifice was needed. These characteristics of hers seem to have guided her life mission of helping those who suffered," Dr. Schneider concluded.

Resulting from her analysis of the personality development of seventy-two historically significant figures, Dr. Schneider concluded that "Overall, historically significant figures are no different from common people in the sense that their personality is relatively fixed and stable. Perhaps, the difference is they had a distinctive personality to begin with."

To conclude, research findings from a wide range of studies, including large-scale longitudinal studies, rigorous experiments, intervention programs, and historical analyses, converge to one major conclusion: *Personality seems to be fixed and stable over time.*■

Personality is changeable and can be developed

by Ruth Adler

WASHINGTON

When she was young, Mary S.* would not leave her mother to make friends with other children. However, when she grew up, she developed outstanding social skills which made her very successful in the public relations field. Now in her late forties, Mary is married, has two children, and is very active in community affairs.

Benjamin M. exhibited a lack of self-discipline even during his early childhood. When he was seven-years old, his parents had to constantly urge him to do his homework; otherwise, he would skip it. But later when Benjamin went to college, he developed a lot of self-discipline. He always had a well-planned study schedule and was better prepared for examinations than the other students.

These cases were among the eight hundred and twelve cases that researchers have collected at the Personality and Development Unit at Stanford University, and they are typical examples of personality development.

Does personality change?

Researchers at the Personality and Development Unit at Stanford University (PDU) are interested in the origins of personality characteristics and how they develop over an individual's life. To collect cases for the data bank, these researchers launched a large scale longitudinal (that is, long-term) study.

For more than twenty five years, the PDU has been following over eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, school records, extensive observations at home and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In a recent article published in the *Journal of Personality Research*, Dr. Lawrence

*To protect their privacy, the real names of the individuals involved were changed.

Rescorla, the director of PDU, reported the findings of their extensive case study research. As was observed repeatedly, Dr. Rescorla concluded that "personality characteristics seem to be malleable and can be developed over time." In fact, personality characteristics are

". . . personality characteristics are basically a bundle of potentialities that wait to be developed and cultivated."

basically of bundle of potentialities that wait to be developed and cultivated," he wrote. He argued that "at almost any time in a person's life his or her personality characteristics can be shaped."

Similar conclusions were drawn by Dr. Paul Medin, a psychologist at the National Institute on Mental Health. In his speech at the American Psychological Association's annual convention held in Washington, D.C. in August, Dr. Medin argued that "no one's character is hard like a rock that cannot be changed. Only for some, greater effort and determination are needed to effect changes." He reported numerous large longitudinal studies which show that people "can mature and can change their character." He also reported findings showing that people's personality characteristics can be changed even in their late sixties.

Dr. Medin's conclusions about personality are based on six longitudinal studies published between 1978 and 1992, including two of his own. All six had considerably different samples and rationales, but "were nearly unanimous in their conclusions on the malleability of personality," he said.

These studies, together with many others, have made clear the fact that people's personality can be developed and can be changed throughout their lives. □

How does personality change?

"Of course, a person's personality does not change automatically," said Dr. Medin.

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"Usually, there are some events in a person's life that motivate them to change."

Similar conclusions were echoed by other researchers in the field. For example, Dr. Russell Kelley, a professor at UCLA, has done extensive research on how people's personality changes. "We all know people who display such

"No one's character is hard like a rock that cannot be changed. Only for some, greater effort and determination are needed to effect changes."

rigid and enduring characteristics that change seems impossible. But, in fact, this is not true. On the contrary, my research findings show that with enough motivation and some external help, such as counseling, these people can develop well beyond their current patterns," Dr. Kelley said.

Indeed, the fact that personality can be changed for the better was documented a long time ago. One classic example is the Cambridge-Somerville Youth Study. In 1935 Richard Clark Cabot established one of the most ambitious and exciting intervention programs ever conceived. It was designed to serve the needs of youngsters whose past behaviors indicated that they were prime candidates for delinquency and criminality. The youngsters were 250 boys from working-class families in a densely populated area of eastern Massachusetts, many of whom were specifically judged by schools, police, or welfare agencies to be "at risk." They entered the program at ages ranging from 5 to 13 and then continued in it for an average of five years.

During that time the intervention program combined psychotherapy and other kinds of assistance. Caseworkers visited each child twice a month and provided whatever assistance seemed warranted, including, in roughly one-third of the cases, active involvement in family conflicts. For 50 percent of the boys, the caseworkers arranged for tutoring in academic subjects. Over 100 boys, or roughly 40 percent of the sample, received medical or psychiatric attention. Social and recreational needs were similarly addressed. In

short, the program was a multifaceted, long duration intervention.

The results of the intervention were rewarding. Compared to the youngsters who were also "at risk" but were not in the program, those who had the intervention showed dramatic differences as adults. Among the youngsters who were not in the program, 23 percent went on to commit serious offenses against people or property, and over two-thirds of them committed at least minor offenses. In contrast, almost none of the youngsters who experienced the intervention committed a serious offense and less than 10 percent of them even a minor offense. In fact, most of them graduated from high school, and then found and kept steady employment.

Results from the Cambridge-Somerville study again indicate that a person's personality and moral character can be changed. Many other research intervention programs have yielded similar results.

How does intervention or psychotherapy create change? According to Dr. Martin Cooper, an eminent psychologist from Harvard University, psychotherapy creates change "by

"Perhaps psychotherapy is effective because personality characteristics are changeable to begin with."

guiding patients to utilize their potential. My experience has taught me never to give up on my clients. No matter what their problems are, the potential that exists in people makes it possible for them to change. It is our role as therapists to guide them to discover their own potential." Perhaps psychotherapy is effective because personality characteristics are changeable to begin with.□

Many historically significant figures changed and developed their personality too.

Interestingly, many famous historical figures changed and cultivated their characters over the course of development. Dr. Marsha Schneider, a historian at the University of Chicago, has done research on the personality of important historical figures. Her research is based largely on biographies and published

interviews with these individuals.

In her article, appearing in the last December issue of the *American Historian*, she reported that "many significant figures in history developed their key personality characteristics over their childhood and young adulthood. These characteristics often served as a strong force to guide them through their life to achieve greatness."

She mentioned several examples, one being Mother Teresa. According to the people who knew her as a child in the village where she was born, she was not at all a model child. In fact, they told how she was punished in school several times for pushing her way to the front of the lunch line. But, through helping her mother, who was a nurse at the local clinic, she began to develop a strong empathy for others' feelings and a willingness to help even when self-sacrifice was needed. "These developing characteristics led to her life mission of helping those who suffered," Dr. Schneider concluded.

From her analysis of the personality development of seventy-two historically significant figures, Dr. Schneider concluded that "Overall, historically significant figures are no different from common people in the sense that their personality is relatively changeable. Perhaps, the difference is they cultivated and developed a distinctive personality."

To conclude, research findings from a wide range of studies, including large-scale longitudinal studies, rigorous experiments, intervention programs, and historical analyses, converge to one major conclusion: *Personality seems to be malleable and can be cultivated.* ■

VITA

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The author was born on May 25th, 1977, in New York City, New York. He graduated from Baldwin Senior High School in Baldwin, New York in 1995. In 1999, he graduated *magna cum laude* with departmental honors from Hofstra University in Hempstead, New York. In August of 2002, he will earn his master of arts in general psychology from The College of William and Mary in Williamsburg, Virginia. In the fall of 2002, the author will attend Rutgers – The State University of New Jersey, where he will pursue a doctoral degree in social psychology.