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THE MOTIVATIONAL ACCOUNT OF THE GENIUS EFFECT:

EXAMINING SELF-ESTEEM PROTECTION

USING SELF-ZOO VARIABLES

Thesis

Submitted to

The College of Arts and Sciences of the

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in Partial Fulfillment of the Requirements for

The Degree

Master of Arts in Psychology

by

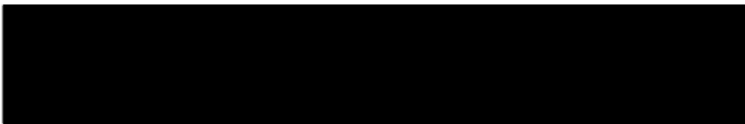
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Dayton, Ohio

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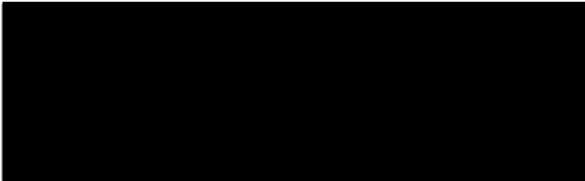
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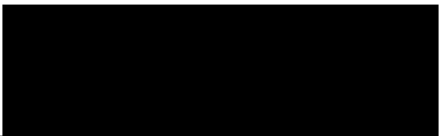
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ABSTRACT

THE MOTIVATIONAL ACCOUNT OF THE GENIUS EFFECT: EXAMINING SELF-ESTEEM PROTECTION USING SELF-ZOO VARIABLES

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The purpose of the present study was to evaluate the motivational account of the genius effect and its relation to the self-zoo (a collection of self-esteem protective mechanisms). The motivational account suggests that people will aggrandize their outperforming competitor's abilities in order to maintain and protect their self-esteem. This study included affirmed or non-affirmed actors and confederates (who always outperformed actors) completing a perceptual task that was either high or low in task relevancy. Additionally, two groups of observers watched them take either the high or low relevancy test, with one group of observers expecting the actors to do well and the other having no expectancy for actors.

Since the self-esteem protective mechanisms of the self-zoo are interchangeable, it was hypothesized that affirmed actors, compared to non-affirmed actors, would not aggrandize their competitors' abilities because their self-esteem had already been protected by the affirmation. That is, the genius effect would not emerge when the actors were affirmed. No significant differences were found within the affirmation condition. However, results of the task relevancy manipulation showed some trends suggesting that the higher the task relevancy, the greater the threat to self-esteem.

When the task was high in relevancy, actors rated themselves lower than they rated themselves in the low task relevancy condition. Additionally, when the task was high in relevancy, actors rated the confederate higher than they rated the confederates in the low task relevancy condition. This demonstrates that actors psychologically distanced themselves when the task was of high relevancy. These results are in accordance with the self-evaluation maintenance model, which is another mechanism within the self-zoo. Further investigations are recommended to evaluate the perceived importance people place on specific tasks and how the level of perceived importance impacts the manner in which people make social comparisons.

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CHAPTER 1

INTRODUCTION

In the pursuit of self-esteem, according to Crocker (2002), people measure their value according to a set of criteria. Some people may place value on appearance, their academic competence, excelling in something important to them, outdoing others on a task, and/or gaining the approval of others to obtain a sense of self-worth. Crocker and Wolfe (2001) state that people will attempt to convince themselves that they have satisfied what they call contingencies of self-worth in the pursuit of self-esteem. However, what if the criteria are not met? How do people cope with threats to the self?

People have a variety of self-protective mechanisms for self-esteem maintenance purposes. Tesser, Martin, and Cornell (1996) categorized these protective features under what they named the self-zoo. The self-zoo's main function is to regulate and maintain self-esteem with its diverse and complex defensive functions (Tesser, 2000, 2001). Researchers have demonstrated these various self-zoo

properties empirically, with the majority of investigative attention directed towards cognitive dissonance (e.g., Festinger, 1957; Cooper, Zanna, & Taves, 1978) self-evaluation maintenance (e.g., Tesser, 1991) and self-affirmation (e.g., Steele, 1998).

This paper examines whether the genius effect (Alicke, LoSchiavo, Zerbst, & Zhang, 1997) is a psychological mechanism that belongs in the self-zoo. The genius effect is the exaggeration of an outperformer's abilities motivated by the need to maintain and protect one's own self-esteem. Alicke and colleagues compared the ratings of perceptual intelligence given to an outperformer (confederate) by the competing actor (actual participant) and a non-competing observer. The actors' ratings of the confederates in perceptual intelligence were higher than those ratings supplied by the observers. Thus, actors aggrandized their outperforming confederates' abilities, whereas observers did not give the label of a "genius" to the confederates. However, Lassiter and Munhall (2001) contend that differences in ratings were due to differing baselines of judgment and not motivated by the need to protect self-esteem. That is, actors had high expectations for their own abilities and made judgments based on their a

priori beliefs, whereas the observers had no preconceived ideas about the actors' abilities and started their ratings from a lower baseline of judgment. Explanations for the genius effect are addressed below, following the examples within the self-zoo and the delineation of the interchangeability of these mechanisms.

The Self-Zoo

The self-zoo is a collection of mechanisms aimed to maintain, bolster, and/or protect self-esteem (Tesser, 2000; 2001; Tesser, Martin, & Cornell, 1996). One such mechanism is cognitive dissonance. Cognitive dissonance is generally defined as an arousal due to incongruence between attitude or belief and behavior (Festinger, 1957). When behaviors do not reflect beliefs, people will often compensate for arousal by changing their attitude in the direction of their behavior (or vice versa) to maintain their favorable self-perception (Cooper, Zanna, & Taves, 1978; Festinger, 1957; Festinger & Carlsmith, 1959; Rosenfeld, Giacalone, & Tedeshi, 1984). For example, the seminal experiment of Festinger and Carlsmith (1959) required participants to complete banal tasks such as packing and unpacking spools. After the tasks, participants were then asked to convince the next

participant (confederate) that the task he was soon to complete was interesting and exciting. Participants were then paid \$1 or \$20 for convincing the confederate that the task was enjoyable. Later, those paid \$1 changed their attitude about the task from boring to enjoyable because they needed to have a reason for behaving in opposition to their beliefs. They were, for example, thinking, "There is no other reason for my behavior than that I must have believed it was the truth." Those paid \$20 were able to justify their lie by the high monetary reward and their attitude remained the same. That is, no attitude change was needed because their self-perception was that the money was important to them and was therefore a justification for their lie.

Social comparisons act as a primary source in obtaining information about oneself (Festinger, 1954; Mussweiler & Rüter, 2003). In fact, because social comparisons are made so frequently, there is evidence it is an automatic process (Bargh, 1997; Dunning & Hayes, 1996; Mussweiler & Rüter, 2003). In order to make a social comparison however, the comparative other needs to be on a similar level as the individual making the comparison. As Mussweiler and Rüter (2003) explained, evaluating ones

athletic abilities by comparing oneself to an 80-year old grand-aunt will not aid an individual in obtaining a valid understanding of a person's true level of ability.

Social comparisons assume various forms; one of the main social comparison models is the self-evaluation maintenance (SEM) model (Tesser, 1991). This model holds that as a self-esteem protection method (found within the self-zoo), a person may evaluate another as being psychologically distant from the self, alter the evaluation of a relevant performance, or change how relevant the task is to the perceiving person (Tesser, 2000). For example, one may attest that the task itself was invalid and therefore not a reliable measurement of abilities. By doing this, the self is protected.

Self-affirmation theory indicates that a person will seek to bolster self-esteem by relying on positive factors when self-image is threatened (Steele, 1988; Steele & Spencer, 1992). These positive factors do not necessarily have to be within the same area as the threat (Steele, 1975; 1988). For instance, one that is lacking in artistic skills may self-affirm by showing how well he or she plays racquetball. Therefore, self-affirmations are used to

maintain a positive sense of global self-worth (Steele, 1988; Steele, Spencer, & Lynch, 1993).

Interchangeability within the Self-Zoo

These defensive properties of the self-zoo share one commonality: the goal. The goal of the self-zoo is to maintain positive levels of self-esteem or current self-evaluation (Tesser, 2001). Thus, it is not surprising that the self-defensive mechanisms of the self-zoo can be substituted with other self-zoo variables (e.g., Kimble, Kimble, & Croy, 1998; Steele & Lui, 1983; Tesser, 2000).

In the cognitive dissonance literature, Steele and Lui (1983) demonstrated that self-affirmation eradicates the need to reduce dissonance. Participants were asked to write an attitude-discrepant essay in favor of increasing the tuition at their institution. Participants were either forced by the experimenter to write the essay (low dissonance) or had the illusion of choice where they were given the opportunity to "help" the experimenter by writing the essay (high dissonance). After writing the essay, participants completed a questionnaire regarding economic values that were either important or trivial to them. To measure for dissonance reduction, participants then completed another survey to measure attitudes. It was

found that those who expressed high-importance economic values produced significantly less attitude change than those who expressed low-importance values. Hence, self-affirmation was utilized in substitution for dissonance reduction. Being that self-affirmation already accomplished the goal of maintaining self-esteem, the attitude change (dissonance reduction) was not required.

Cohen, Anderson, and Steele (2000) illustrated that self-affirmations in one domain lead to greater acceptance of a counterattitudinal argument. Participants were exposed to arguments that challenged their beliefs about capital punishment. However, before these arguments were presented, participants had the opportunity to self-affirm by writing an essay on an important personal value. In comparison to those that wrote about a less important personal value, affirmed participants were more willing to recognize the importance and validity of the counterattitudinal argument.

Tesser and Cornell (1991) found that self-affirmation reduced the need for social comparison. According to the SEM model, the experience of a person being outperformed by a friend, as opposed to a stranger, would increase the threat to self-esteem. In a word task, participants were

required to provide clues to their partners so that the partners would be able to guess the word correctly. In accordance with the SEM model, it was hypothesized that participants paired with friends would provide more difficult clues, and when they were paired with strangers they would provide easier clues. The hypothesis was indeed supported. Nevertheless, when given the opportunity to self-affirm, participants provided less difficult clues to friends because there was no need to protect their self-esteem due to positive self-evaluations already being secured by the affirmations.

Cognitive dissonance has also been shown to influence social comparisons. Tesser, Crepaz, Collins, Cornell, and Beach (2000) called participants to write essays in support of a senior thesis policy their institution was debating on incorporating into the curriculum. For the dissonance condition, participants either had perceived choice in writing the essay (high-dissonance) or were forced to write the essay (low-dissonance). Before the dissonance essay, they were first asked write about a vivid experience when they had to complete a task with another person who outperformed them, with the task being either important to them (SEM comparison) or not important to them (SEM

reflection). Again, the SEM model assumes that the relevancy of the task and the closer (psychologically) the competitor is to the participant, the more threatening failure is to the participant's self-esteem. Thus, it was predicted that for the situation when the task was important to individuals, the participants would rate their competitors as psychologically distant from them. If cognitive dissonance does influence social comparison, there should be a significant difference in closeness rating for those in the high dissonance condition compared to those in the low dissonance condition. That is, participants experiencing SEM reflection and SEM comparison in the low dissonance condition should have similar ratings; those experiencing SEM reflection and SEM comparison in the high dissonance condition, should have higher ratings of psychological closeness. This hypothesis was also supported by the data.

The motivation for people to maintain positive evaluations is robust. Tesser (2003) explains that if a person discovers that a competitor's project is worthless, he would experience positive affect. On the other hand, if that competitor's project is extraordinary, he would experience negative affect. Therefore, under the SEM

model, if a person were able to denigrate a competitor in some manner (e.g., an accusation of cheating), or make the task itself less important (e.g., the task was not an adequate reflection of a person's abilities), the person would feel less threatened and maintain a positive level of affect within a self-evaluation. However, what if the situation were unambiguous? That is, what if the task itself was shown as a strong predictor of intelligence and could not be refuted? Furthermore, if a competitor's high-level of performance was unquestionable, how would a person maintain his or her positive level of self-esteem?

The Genius Effect: Motivational View and Evidence

Alicke et al. (1997) introduced the above situation to undergraduate students in a research simulation of test taking. They compared the ratings of the actors and observers, who were viewing test-takers (actors and confederates) behind a one-way mirror. In this four-part experiment, Alicke and colleagues demonstrated that when unambiguously outperformed, actors aggrandized the abilities of their competitors (confederates) in a perceptual intelligence test (Studies 1 and 2). Additionally, when the results were reversed and actors unambiguously outperformed the competitor, the actors also

exaggerated the abilities of their competitors (Study 4). Alicke et al. deemed the aggrandizing of competitor's abilities in an unambiguous task the genius effect.

Alicke et al. (1997) hold that the aggrandizing of competitors abilities were motivated by the desire to maintain a favorable self-esteem. In accordance with Tesser's (2000, 2001, 2003) position that people need to have a positive self-evaluation, actors would assume that the competitors must be a genius in order to have outperformed them. Additionally, to boost self-esteem, the outperforming actors aggrandized the competitors' abilities to show that they can outdo someone who is skilled.

Study 3 (Alicke et al., 1997) further supported the motivational account by allowing actors to assess their level of general intelligence rather than perceptual intelligence. Those actors given the opportunity to evaluate their outperformer and then their own general intelligence rated their general intelligence higher compared to those who were not given the opportunity to evaluate their outperformer. Thus, after aggrandizing their outperformer's general intelligence, actors increased their beliefs of their own general intelligence causing

scores to be higher for them as compared with those who were unable to aggrandize their outperformers.

After reviewing the foregoing explanations of the genius effect, it would appear that the genius effect may be another component to the self-zoo. That is, the genius effect aims to maintain and protect the self-esteem. However, a conflicting explanation for the genius effect has been proposed.

The Genius Effect: Nonmotivational View and Evidence

Studies suggest that people believe that they know themselves and their abilities quite well. They believe they are better than average (e.g., Alicke, Klotz, Breitnenbecher, Yurak, & Vredenburg, 1995) and are overconfident in particular situations (Block & Harper, 1991). This belief that "I know myself" allows people to use themselves as a reference point. Overconfidence has been supported empirically with studies of the false-consensus effect (e.g., Alicke & Largo, 1995), egocentric comparisons (e.g., Alicke, 1993; Dunning & Hayes, 1996) and self-referencing (e.g., Bellezza & Hoyt, 1992; Mussweiler & Strack, 2000).

Lassiter and Munhall (2001) contend that the genius effect does not occur because of the motivation to maintain

self-esteem but rather it is due to the favorable preconceptions actors have about their own perceptual abilities. For example, in pilot study, participants supported this position when 20 out of 28 participants indicated that they believed they would outperform their competitor. The egocentric comparison literature provides evidence that people will often use themselves as points of reference (e.g., Alicke & Largo, 1995; Dunning & Cohen, 1992); thus, actors having *a priori* accounts of their own perceptual ability would lead to a differing baseline of judgments. As such, Lassiter and Munhall suggest ratings by the actors' and observers' of perceptual intelligence differed because the observers did not hold the same preconception of the actors' abilities for the task as the actors had for themselves.

In a two-part study, Lassiter and Munhall (2001) manipulated the observers' baseline of judgment by expressing to them that the actors were skilled or by making no comments about the actors. Therefore, by telling the observer that the actors were skilled, it was assumed that an equal baseline of judgment was established. The findings indicated that high-expectant observers and actors made similar ratings of perceptual intelligence for both

the confederate and the actor. Furthermore, the non-expectant observers (who were similar to observers in Alicke et al., 1997) had lower ratings of the confederate than did the high-expectant observers. Assuming that the baselines of the actors and high-expectant observers were calibrated, the nonmotivational account of the genius effect was supported. Lassiter and Munhall (2001) state, "It is difficult to fathom how the observers' self-image could be implicated one way or the other as they did not actually take the test and therefore their quality of performance was never at issue" (p. 353). However, it could be argued that the suggestion of the experimenter to the observer that the actor was expected to do well influenced the observer in a different manner than the experimenters aimed. It is possible that observers wanted to perform well in their ratings. With implementing the high expectations of the actor, it is also possible that this manipulation influenced the observer to give higher ratings to the confederate in the pursuit to provide more accurate judgments.

The Present Study

The purpose of the present study is to use the self-affirmation protective mechanism of the self-zoo and the

task relevancy component of the SEM model to evaluate the motivational theory of the genius effect. The research reviewed indicates that aspects of the self-zoo are interchangeable because they all aim for the same goal: maintaining, boosting, and protecting self-esteem. Similar to the Alicke et al. (1997) and Lassiter and Munhall (2001) studies, this investigation uses actors, confederates and observers. The actors and confederates are the perceptual test-takers. The actors are actual participants while the confederates are research assistants who pretend to be a participant (who will always outperform the actor on the perceptual task). The observers are also real participants who are asked to observe the test-takers and rate them on their level of perceptual intelligence. All participants are unaware of the confederate's role. The dependent variables are the ratings given to the actor and the confederate on their level of perceptual ability by the actor and the observers based on their performance on the task. Therefore, the actor self-evaluates and also rates the confederate whereas the observers rate both the actor and confederate. The actors and confederates are referred to as target because they are being rated while the

observers and actors are referred to as rater, being that they are evaluating.

The independent variables are task relevancy, affirmation and observer expectancy. All participants are presented with the task relevancy manipulation, being either high or low. Task relevancy refers to the validity (i.e., the accuracy of the test) placed on the perceptual task as explained by the experimenter. Only actors undergo the affirmation condition where they are either able to self-affirm or complete a neutral task. Finally, the observers are only exposed to the expectancy condition where they are either told that the actor is skilled at the task or told nothing about the actor.

CHAPTER 2

HYPOTHESES

Actors

Since the motivational account explains that the genius effect has the same goals of maintaining, boosting, and protecting self-esteem, it should also be interchangeable with other mechanisms in the self-zoo. It is hypothesized that a Target (actors vs. confederates) x Affirmation interaction will be obtained such that non-affirmed actors will rate the confederate higher in perceptual intelligence than the affirmed actors. Manipulating the level of task relevancy should yield a Target x Task Relevancy interaction such that when the task is high in relevancy actors should rate the confederate higher and themselves lower in perceptual intelligence than when the task is low in relevancy (cf. Tesser, 2001). A Target x Affirmation x Task Relevancy interaction in which non-affirmed actors should rate the confederates' level of intelligence higher than the affirmed actors in the low task relevancy condition.

Observers

If observers have the desire to make accurate judgments, the relevancy of the task should influence their judgments of perceptual intelligence regardless of the expectancy they have for the actor. When the task is more relevant or important, the rating criteria should be more stringent for actors and more rewarding for the confederates. Accordingly, it is hypothesized that a Target x Task Relevancy interaction will emerge such that when the task is high in relevancy, the observers will rate the actor lower and will rate the confederate higher in perceptual intelligence.

Genius Effect: Actors and Observers

In accordance with the motivational account of the genius effect (Alicke et al., 1997), it is hypothesized a Target x Rater interaction will emerge such that actors will rate the confederates higher than the observers will rate the confederates.

CHAPTER 3

METHOD

Participants

One hundred and thirty-nine participants (56 actors, 83 observers) were recruited from the introductory psychology classes, at the University of Dayton, in partial fulfillment of course credit. All were treated in accordance with the "Ethical Principles of Psychologists and Code of Conduct" (American Psychological Association, 1992).

Design

Three designs were used in this research. The purpose of the first design was to test the effect of affirmation and how the levels of importance placed on the task influence the actors' ratings of perceptual intelligence for themselves as well as the confederate (target). Therefore, a Target (within-subjects factor) x Affirmation (between-subjects factor) x Importance (between-subjects factor) factorial design was used.

The second design was created to test the effect expectancy (whether or not the observers were told that actors should perform well on the task) and task relevancy had on how the observers rate the actors' and the confederates' level of intelligence; a Target (within-subjects factor) x Observer Expectancy (between-subjects factor) x Task Relevancy (between-subjects factor) design was used.

Finally, the third design was created to test the genius effect, comparing ratings given by the actors and the observers across the high and low task relevancy conditions. A Target x Rater (actor vs. observer) x Task Relevancy design was used with a within-subjects factor on Target, and the latter two variables being between-subjects factors.

Materials

Five forms were utilized: a perceptual task that was created for this study (Appendix A), the Self-Identity Assessment created by Kimble, Smith, Abraham, & Fernandez, (2003; Appendix B) a proof-reading task (Appendix C), and two post-test questionnaires containing questions regarding the performance of the actor and confederate (Appendices D and E).

The perceptual task consisted of 12 problems (2 practice and 10 test-problems) each containing a picture with a section of it removed. There were eight answer choices provided, one of which completed the picture exactly.

The Self-Identity Assessment, includes 15 fill-in-the-blank sentences written in the first person; five statements each having the following word cues: I have been complimented on ____; I know more about ____ than most people; and I am good at _____. The proofreading task was the chapter *Habit* from *The Principles of Psychology* (James, 1890), where persons were instructed to cross-out all letter "e"s.

The post-test questionnaires were comprised of 10 questions pertaining to the actors' and confederates' levels of performance using a Likert-type scale ranging from 0 to 9 (higher numbers indicating favorable performance). On the actors' post-test questionnaire, a line was included for the score they obtained on the test. For the observers, there were two lines provided (Score for Person A ___, Score for Person B___) to indicate scores obtained on the perceptual test for both the actor and confederate.

Four rooms were needed for this study. One large room, the test-taking room, consisted of two desks facing a one-way mirror and an intercom. The observation room was equipped with two chairs facing the test-taking room (separated by an opaque curtain) and had the receiving end of the intercom. The last two rooms served two purposes. Their initial use was as instruction rooms for the observers. Subsequently, they were used for administering the affirmation procedure, or the proofreading task, to the actors.

There was a potential of having six people involved in this experiment at any one time. Three people were members of the experimental team, Experimenter 1, Experimenter 2, and a trained confederate, all of whom were present for each session. The participants were assigned to be either an actor, high-expectant observer (always the first observer to be called into the room), or non-expectant observer (the last observer to be called into the room).

Procedure

Participants were called to the experiment under the guise of a study of novel skills, as in Alicke et al. (1997) and Lassiter and Munhall (2001). Experimenter 1 met the participants in a waiting area and called the names of

one participant, who would be the actor, and the confederate. The experimenter escorted them to the test-taking room and asked them to read and sign the informed consent form while she retrieved her papers. Experimenter 1 then escorted the high-expectant observer to an instruction room. She administered the informed consent form and then explained that the task would be to observe two students who would be completing a test of perceptual intelligence and to rate their perceptual ability using the post-test questionnaire. She then allowed the high-expectant observers to look at the perceptual test and complete the two easy practice problems. She informed the high-expectant observers that she would be starting the test-takers shortly and asked them to please be silent when they enter the observation room and to move as little as possible so that the test-takers would not know that they were being watched. Furthermore, the high-expectant observers were also informed that they would be completing a proofreading task when instructed. That is, the high-expectant observers entered the observation room with the post-test questionnaire and the proofreading task. The experimenter gathered her testing papers and, as a manipulation of performance expectancy, casually mentioned

that she recognized one of the test-takers (pointed to the actor) from a similar study and expects that person to do very well on the perceptual task (Lassiter & Munhall, 2001).

Meanwhile, as Experimenter 1 explained instructions to high-expectant observers, Experimenter 2 explained the directions to the non-expectant observers in a different instructions room. The non-expectant observers were given the same task instructions as the high-expectant observers but were not told that the actor was thought to perform well on the task. Once the observers were in place, Experimenter 1 returned to the test-taking room and read the directions to the test-takers. She casually noted that another study was "tacked-on" to hers, and they would be completing a short task after this test. The high-importance manipulation read as follows:

The National Organization of Psychological Theory and Research has developed a subtest of perceptual intelligence that has been shown to be a highly reliable and valid instrument for assessing people's ability to process perceptual information. This test is currently being completed by university students across the country. In this experiment, we are

interested in seeing how well you can perform on this test.

For the low-relevancy manipulation, instructions were read as follows:

This is a preliminary test of problem solving abilities that some of our students have developed. This task is currently being assessed for its reliability and validity. We are just interested in seeing how people can do on this task. That is, if it is a good test of problem solving abilities, we may use it in future studies.

The actors and confederates were given the opportunity to complete the practice problems to insure they understood the task. Once they completed the practice problems, Experimenter 1 noted that they would have 10 min to complete the perceptual test and exited the test-taking room.

After 10 min, Experimenter 1 returned to the room and announced to the test-takers that they would be grading each other's papers. She shuffled through her papers and announced that she forgot the answer sheet and would return shortly. As she was leaving she stopped and explained that, for the sake of efficiency, she would take them to

another room so they could complete the other task (either the proofreading task or the Self-Identity Assessment which was the self-affirming procedure; similar to Kimble et al., 2003). All participants agreed and followed Experimenter 1 to Experimenter 2's room. Experimenter 2 acted surprised to see them so early, but agreed to administer the test at that time.

Half of participants were asked to complete the Self-Identity Assessment (self-affirmation condition) form. The remaining participants were asked to cross-out the letter "e" in the proofreading task for the duration of 8 min.

Once Experimenter 1 left the test-takers, she returned to the test-taking room to tell the observers, via intercom, that they were to complete the proofreading task. She pretended to start her stopwatch and left the room.

When the actors were finished with Experimenter 2's task, the observers were asked to stop proofreading. Experimenter 2 collected the forms, thanked the actors and confederates for their compliance, and returned them to the test-taking room where Experimenter 1 was waiting with the answer sheets.

Experimenter 1 had the confederate and actor exchange papers and instructed them to cross out the problems that

were incorrect as she read the answers aloud. After the answers were read, they were then instructed to count the total number correct and place that number on the front page and return the test to its owner. Experimenter 1 then asked for the score obtained and repeated the number correct again (so that the observers had two chances to hear the score obtained by both test-takers) while writing the number on the post-test questionnaire. She then gave the test-takers the post-test questionnaire with their perceptual test score recorded on it. The confederate was previously instructed to give the actor a score of 3 regardless of their performance (only 4 actors obtained a score higher than 3). The test-takers were then asked to rate themselves and the other person on the level of perceptual intelligence using the post-test questionnaire. At this time, the observers completed their post-test questionnaire, as they had been told to do so earlier in the instructions phase.

Once all had completed the post-test questionnaires, observers were taken into the testing-room for the full debriefing.

CHAPTER 4

RESULTS

The dependent measures were the rating of perceptual intelligence (on a Likert-type scale ranging from 0 to 9, higher numbers indicating higher intelligence) given to the targets (actors and confederates) by the raters (actors and/or observers) on the post-test questionnaires. For the first two analyses, data were analyzed for the actors and observers separately. For the final analyses, data were analyzed for the actors and observers together. All means and standard deviations are shown in Appendix F.

Actors

To test the effect affirmation and task relevancy had on how the actors provided ratings of perceptual intelligence, a Target (within-subjects factor) \times Affirmation (between-subjects factor) \times Task Relevancy (between-subjects factor) was submitted to an analysis of variance (ANOVA). The Target \times Affirmation interaction failed to reach significance, $F(1,52) = 1.27$, $MSE = 3.56$, $p = .27$, with an effect size of .02 (eta square), indicating

the affirmation condition had no effect on the actors. The Target x Task Relevancy interaction was marginal, $F(1,52) = 3.56$, $MSE = 3.56$, $p = .06$, with an effect size of .06. Means and standard deviations are presented in Table 1a. Independent sample t-tests were performed as a post hoc planned comparison measure to analyze differences in task relevancy. The results indicate that there were no differences between the ratings given to the actor $t(52) = .96$, $p = .12$ and the confederate $t(54) = -.97$, $p = .34$ across task relevancy. The Target x Affirmation x Task Relevancy interaction failed to reach significance, $F(1,52) = .52$, $MSE = 2.09$, $p = .47$ with an effect size of .01. As expected, a significant main effect of Target was revealed $F(1,52) = 175.10$, $MSE = 2.09$, $p < .01$, with an effect size of .77, where actors awarded higher ratings of perceptual intelligence to the confederate ($M = 7.16$, $SD = .78$) than themselves ($M = 3.57$, $SD = 1.82$).

Observers

To examine the effect that expectancy (high expectancy for the actor vs. no expectancy for the actor) and task relevancy had on how observers provided ratings of perceptual intelligence, a Target (within-subjects factor) x Expectancy (between-subjects factor) x Task Relevancy

(between-subjects factor) was conducted. The Target x Expectancy interaction failed to reach significance, $F(1,79) = .07$, $MSE = 1.44$, $P = .79$ with an effect size of .001, indicating that the raising the level of expectancy had no effect on how the observers rated the targets. The Target x Expectancy x Task Relevancy interaction failed to reach significance, $F(1,79) = .37$, $MSE = 1.44$, $p = .54$ with an effect size of .01. As hypothesized, a significant Target x Task Relevancy interaction emerged, $F(1,79) = 5.88$, $MSE = 1.44$, $p = .02$, with an effect size of .07. The results are summarized in Table 1b. Independent sample *t*-tests were performed as a post hoc planned comparison measure to analyze differences in task relevancy. Task relevancy had no significant effect on how observers rated the actor $t(81) = 1.12$, $p = .27$, however, there was a significant difference in the ratings for the confederate, $t(55) = 2.03$, $p = .04$. Thus, significantly higher ratings of perceptual intelligence were given to the confederate when the task was high in relevancy. Again, the main effect of Target was significant where the observers rated the confederates higher in perceptual intelligence than the actors ($M = 6.88$, $SD = 1.31$, and $M = 3.88$, $SD = 1.32$,

Table 1

Means and Standard Deviations of the Ratings of Perceptual Intelligence Given to the Actors and Confederates as determined by Task Relevancy.

| | | Target | | | |
|-------------------------------|------|---------------|-----------|---------------------|-----------|
| | | <u>Actors</u> | | <u>Confederates</u> | |
| Task Relevancy | | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Rated by Actor | | | | | |
| a | Low | 3.93 | 1.74 | 7.07 | .78 |
| | High | 3.15 | 1.85 | 7.27 | .78 |
| Rated by Observer | | | | | |
| b | Low | 4.05 | 1.39 | 6.56** | 1.65 |
| | High | 3.73 | 1.25 | 7.26** | .83 |
| Rated by Actors and Observers | | | | | |
| c | Low | 4.00* | 1.54 | 6.78** | 1.36 |
| | High | 3.52* | 1.51 | 6.99** | 1.13 |

* $p = .06$.

** $p < .05$.

respectively), $F(1,79) = 244.58$, $MSE = 1.44$, $p = .02$, with an effect size of .76. All other sources of variance failed to reach significance.

The Genius Effect: Actors and Observers

To examine if actors and observers differed in their ratings of the actors' and confederates' perceptual intelligence (the premise of the genius effect) in both the high and low level task relevancy conditions, a Target x Rater (actors vs. observers) x Task Relevancy factorial design was submitted to an ANOVA with repeated measures on the target variable, and between-subjects factors for the latter two variables. A significant Target x Task Relevancy interaction was observed, $F(1,135) = 8.97$, $MSE = 1.68$, $p < .01$, having an effect size of .06. The results are summarized in Table 1c. Independent sample t-tests were performed as a post hoc planned comparison measure to analyze differences in task relevancy. Differences between high and low task relevancy were found for the actors at marginal significance, $t(137) = 1.88$, $p = .06$, where actors were given lower ratings of perceptual intelligence when the task was high in relevancy. Furthermore, confederates were rated significantly higher in perceptual intelligence when the task was high in relevancy, $t(111) = 2.19$, $p =$

.03. The Target x Rater interaction reached significance $F(1,135) = 4.221$, $MSE = 1.68$, $p = .04$, effect size of .03 and is shown in Table 2. Independent sample t-tests were performed as a post hoc planned comparison measure to analyze raters (actor vs. observer) and found no significant differences between how the actors and observers rated the targets, $t(93) = 1.09$, $p = .28$ and $t(135) = 1.58$, $p = .12$, respectively. Finally, a significant main effect of Target was observed where confederates were rated higher in perceptual intelligence than were the actors ($M = 7.00$, $SD = 1.13$, and $M = 3.76$, $SD = 1.54$, respectively).

Table 2

Means and Standard Deviations of the Ratings of Perceptual Intelligence Given to the Actors and Confederates by the Actors and Observers.

| Rater | Target | | | |
|-----------|---------------|-----------|---------------------|-----------|
| | <u>Actors</u> | | <u>Confederates</u> | |
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Actors | 3.57 | 1.81 | 7.16 | .78 |
| Observers | 3.87 | 1.32 | 6.88 | 1.31 |

CHAPTER 5

DISCUSSION

The purpose of the present study was to investigate the motivational account of the genius effect by exploring its interchangeability with self-zoo variables (self-affirmation and the relevancy component of the SEM model).

Actors

It was hypothesized that affirmed actors would give lower ratings of perceptual intelligence to the confederate than the non-affirmed actors because there would be no need for them to protect their self-esteem by aggrandizing the confederates. This hypothesis was not supported in this study; no significant differences were found between the affirmation conditions. In the self-zoo interchangeability studies, self-affirmation required a person to reflect in depth on positive qualities about the self (e.g., Cohen, Anderson, & Steele, 2000). The Self-Identity Assessment (self-affirming task) may not have allowed for in-depth reflection. This task only required one word to complete each of the 15 generated sentences. Perhaps the intensity

of the affirmation needs to be equivalent to or greater than the intensity of the self-esteem threat.

In this study, the self-affirmation procedure was implemented before the actors and confederates graded each other's tests. It is possible that the threat to the self should occur before given the opportunity to affirm. As in the Tesser, et al. (2000) cognitive dissonance study, participants were first made aware they were going to write an essay in support of the (unwanted) senior thesis policy and then underwent the self-affirmation procedure. They were threatened, affirmed, and did not produce an attitude change. The actors in the current study, however, did not know the outcome of their test results before undergoing the self-affirmation condition. It was thought that the task itself would pose enough threat to the self, but this may not have been the case. This study's actors may have been unaware of their poor performance until the raw scores were obtained. Kruger and Dunning (1999) demonstrated that people performing poorly on various tasks rated themselves high in performance. That is, they were unknowingly unskilled on the tasks presented to them. To enhance the self-esteem threat in future studies, actors should receive

their results of the task before the affirmation condition is implemented.

The self-evaluation maintenance model attests that the higher the task is in relevancy to the individual, the more threatening failure is to self-esteem (Tesser & Cornell, 1991; Tesser, Crepaz, Collins, Cornel, & Beach, 2000).

Therefore it was hypothesized that when the task was high in relevancy, actors would rate the confederate higher in perceptual intelligence than when the task was low in relevancy (cf. Tesser, 2001). This hypothesis was not supported, although a trend in this direction was found; Actors in the high task relevancy condition did rate the confederate higher than the actors in the low task relevancy condition. This trend suggests that actors in the high relevancy condition were more threatened, were unaffected by the affirmation, and protected self-esteem by psychologically distancing themselves from the confederates (Tesser, 2000; 2001; 2003).

Observers

In Lassiter and Munhall's (2001) study, researchers held that the observers in the Alicke et al. (1997) experiment had no expectation for the actors' performance and rated them starting from a lower baseline of judgment.

That is, actors had the expectation of at least performing average and based their self-ratings starting from the midpoint of the scale whereas the observers, with no expectation, were anchoring their ratings starting from the lower end of the scale. This contention was supported when Lassiter and Munhall raised the observers' expectancy and the actors' and observers' judgments of perceptual intelligence were nearly equal.

In this study, it was assumed that the observers were motivated to rate the test-takers accurately. Regardless of their expectancy for the actor, it was hypothesized that the relevancy of the task would drive their ratings of perceptual intelligence. This hypothesis was partially supported. Unlike the Lassiter and Munhall (2001) study, the Target x Observers Expectancy interaction failed to reach significance. The manipulation of expectancy had no effect on observers' judgments of performance. Instead of the higher expectation influencing the observers, it was the relevancy of the task; significant differences were found for the ratings given to the confederate. The observers in the high task relevancy condition gave higher ratings of perceptual intelligence to the confederates than did the observers in the low task

relevancy group. It is then plausible that the higher the task relevancy, the more pressure observers feel to rate accurately.

The Genius Effect: Actors and Observers

In general, collapsing across actor affirmation and observer expectancy, a significant Target x Task Relevancy interaction emerged with significance found for the ratings of the confederate and marginal significance was found for the ratings of the actor. The actors in the high task relevancy condition received lower ratings of perceptual intelligence than the actors in the low task relevancy condition. This signifies that the higher the relevancy of the task, the more harsh raters (actors and observers) are on poor performers (the actors).

The Target x Rater interaction was also of interest. In line with the genius effect, it was hypothesized that actors would aggrandize the outperforming confederate. That is, the confederate would be rated higher in perceptual intelligence by the actor than by the observer. Post hoc analyses found no significant differences for the ratings given to the actors (by the actors and observers) or confederates (by the actors and observers). This

suggests that the actors, overall, did not aggrandize the abilities of the confederate.

Future directions

In future studies, the level of personal importance the actors place on the task should be explored. This study varied the level of relevancy of the task; nevertheless, if the task is not important to the actor, there is no self-esteem threat and no need to protect it. Few people enjoy failing, yet, in a less important task, it does not trouble the person as much as it would in a more important task. Conceivably, if this task were administered to students in aviation, it would be more important to them to do well because perceptual intelligence is important to their field. The task relevancy manipulation explained that the test was valid and reliable in determining people's ability to process perceptual information. In subsequent studies, it should be explained that perceptual intelligence is an important aspect of future success to increase the personal value of the test.

The task importance of the observers is also an issue. How important is it for observers to provide accurate ratings? The results indicated that high task relevancy

produced higher ratings for the confederate by the observers. Again, this asks the question of the "test" the observers are undergoing. Future investigations should vary the level of personal importance for the observers. Additionally, it is recommended that the Current Feelings scale be implemented, allowing the observer to rate, for example, the level of importance he/she has placed on performing well (Hirt, et al., 2000; Kimble, et al., 2003).

Conclusions

Although the Target x Affirmation interaction was not significant, the task relevancy condition did yield some significant results. The fact that task relevancy was a contributing factor to ratings given by the actors and observers, suggests that there is more than what Munhall and Lassiter (2001) claim to be the reason behind the Alicke et al. (1997) findings: unequal baselines of judgment. Again, the personal importance placed on the task by the actors and the personal importance of the observers to provide accurate ratings needs further investigation.

CHAPTER 6

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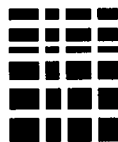
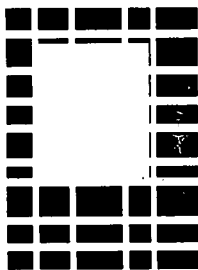
APPENDIX A

Perceptual Task

EXAMPLES

Directions: Circle the letter that best represents the missing items in the target object.

EXAMPLE 1



A



B



C



D



E



F

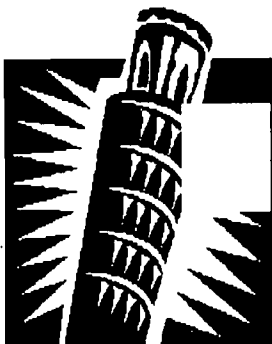


G



H

EXAMPLE 2



A



B



C



D



E



F

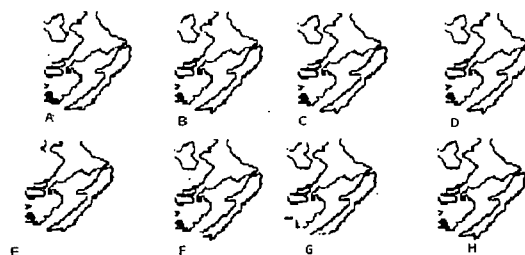
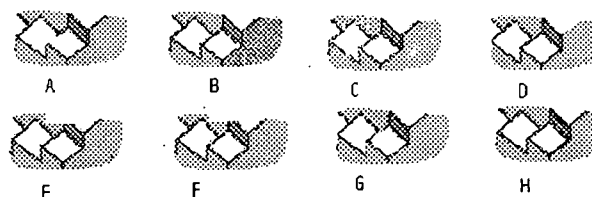
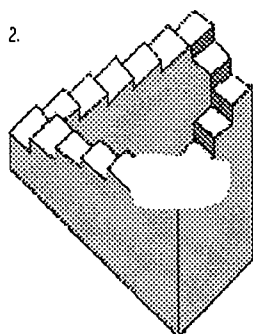
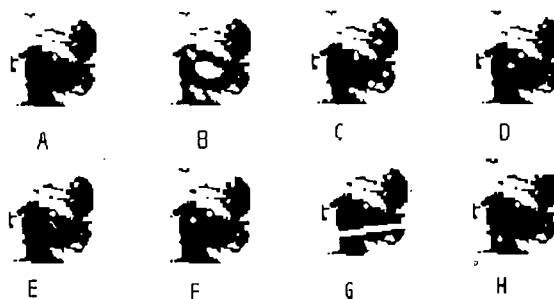


G

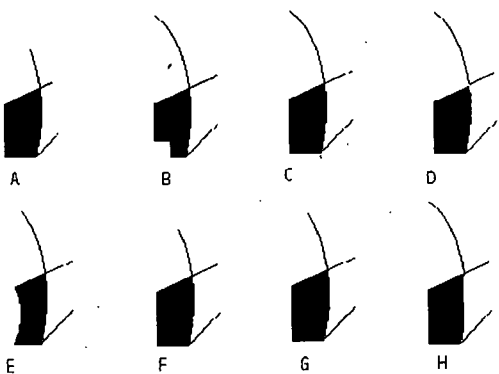
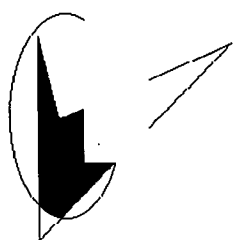


H

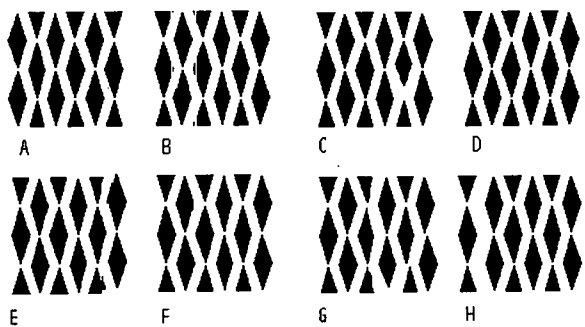
Directions: Circle the letter that best represents the missing items in the target object.



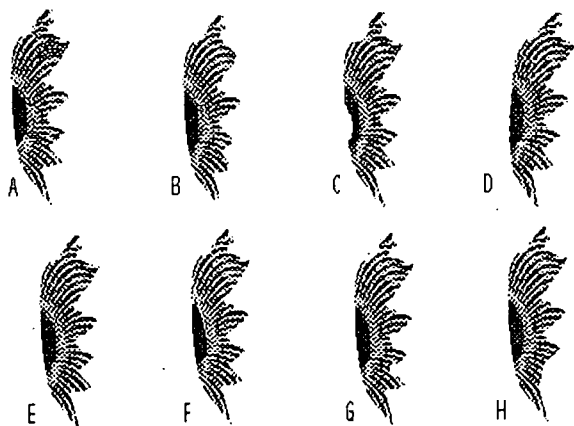
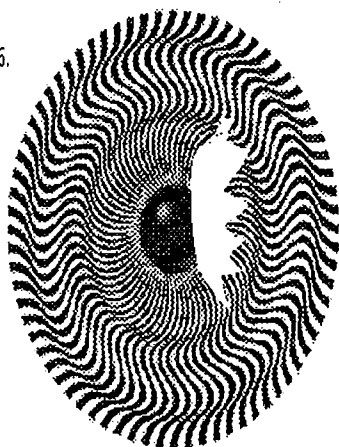
4.



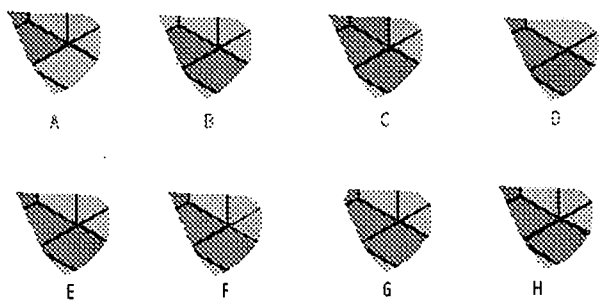
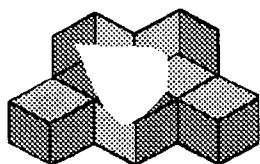
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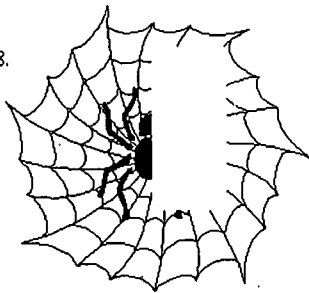
6.



7.



8.



A



B



C



D



E



F

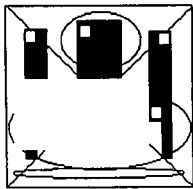


G



H

9.



A



B



C



D



E



F

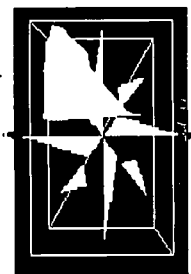


G



H

10.



A



B



C



D



E



F



G



H

STOP

APPENDIX B

Self-Identity Assessment (Affirmation Instrument)

Self-Identity Assessment

Directions: Please complete the following statements, as they are true for you.

1. I have been complimented on _____.
2. I have been complimented on _____.
3. I have been complimented on _____.
4. I have been complimented on _____.
5. I have been complimented on _____.
6. I know more about _____ than most people.
7. I know more about _____ than most people.
8. I know more about _____ than most people.
9. I know more about _____ than most people.
10. I know more about _____ than most people.
11. I am good at _____.
12. I am good at _____.
13. I am good at _____.
14. I am good at _____.
15. I am good at _____.

APPENDIX C

Proofreading Task

Habit - William James

When we look at living creatures from an outward point of view, one of the first things that strike us is that they are bundles of habits. In wild animals, the usual round of daily behavior seems a necessity implanted at birth; in animals domesticated, and especially in man, it seems, to a great extent, to be the result of education. The habits to which there is an innate tendency are called instincts; some of those due to education would by most persons be called acts of reason. It thus appears that habit covers a very large part of life, and that one engaged in studying the objective manifestations of mind is bound at the very outset to define clearly just what its limits are.

The moment one tries to define what habit is, one is led to the fundamental properties of matter. The laws of Nature are nothing but the immutable habits which the different elementary sorts of matter follow in their actions and reactions upon each other. In the organic world, however, the habits are more variable than this. Even instincts vary from one individual to another of a kind; and are modified in the same individual, as we shall later see, to suit the exigencies of the case. The habits of an elementary particle of matter cannot change (on the principles of the atomistic philosophy), because the particle is itself an unchangeable thing; but those of a compound mass of matter can change, because they are in the last instance due to the structure of the compound, and either outward forces or inward tensions can, from one hour to another, turn that structure into something different from what it was. That is, they can do so if the body be plastic enough to maintain [p.105] its integrity, and be not disrupted when its structure yields. The change of structure here spoken of need not involve the outward shape; it may be invisible and molecular, as when a bar of iron becomes magnetic or crystalline through the action of certain outward causes,

or India-rubber becomes friable, or plaster 'sets.' All these changes are rather slow; the material in question opposes a certain resistance to the modifying cause, which it takes time to overcome, but the gradual yielding whereof often saves the material from being disintegrated altogether. When the structure has yielded, the same inertia becomes a condition of its comparative permanence in the new form, and of the new habits the body then manifests. *Plasticity*, then, in the wide sense of the word, means the possession of a structure weak enough to yield to an influence, but strong enough not to yield all at once. Each relatively stable phase of equilibrium in such a structure is marked by what we may call a new set of habits. Organic matter, especially nervous tissue, seems endowed with a very extraordinary degree of plasticity of this sort; so that we may without hesitation lay down as our first proposition the following, that *the phenomena of habit in living beings are due to the plasticity of the organic materials of which their bodies are composed.*

But the philosophy of habit is thus, in the first instance, a chapter in physics rather than in physiology or psychology. That it is at bottom a physical principle is admitted by all good recent writers on the subject. They call attention to analogues of acquired habits exhibited by dead matter. Thus, M. Léon Dumont, whose essay on habit is perhaps the most philosophical account yet published, writes:

"Every one knows how a garment, after having been worn a certain time, clings to the shape of the body better than when it was new; there has been a change in the tissue, and this change is a new habit of cohesion. A lock works better after being used some time; at the outset more force was required to overcome certain roughnesses in the mechanism. The overcoming of their resistance is a phenomenon of habituation. It costs less trouble to fold a paper when it has been [p.106] folded already. This saving of trouble is due to the essential nature of habit, which brings it about that, to reproduce the effect, a less amount of the outward cause is required. The sounds of a violin improve by use in the hands of an able artist, because the fibres of the wood at last contract habits of vibration conformed to harmonic relations. This is what gives such inestimable value to instruments that have belonged to great masters. Water, in flowing, hollows out for itself a channel, which grows

broader and deeper; and, after having ceased to flow, it resumes, when it flows again, the path traced by itself before. Just so, the impressions of outer objects fashion for themselves in the nervous system more and more appropriate paths, and these vital phenomena recur under similar excitements from without, when they have been interrupted a certain time."

Not in the nervous system alone. A scar anywhere is a *locus minoris resistentioe*, more liable to be abraded, inflamed, to suffer pain and cold, than are the neighboring parts. A sprained ankle, a dislocated arm, are in danger of being sprained or dislocated again; joints that have once been attacked by rheumatism or gout, mucous membranes that have been the seat of catarrh, are with each fresh recurrence more prone to a relapse, until often the morbid state chronically substitutes itself for the sound one. And if we ascend to the nervous system, we find how many so-called functional diseases seem to keep themselves going simply because they happen to have once begun; and how the forcible cutting short by medicine of a few attacks is often sufficient to enable the physiological forces to get possession of the field again, and to bring the organs back to functions of health. Epilepsies, neuralgias, convulsive affections of various sorts, insomnias, are so many cases in point. And, to take what are more obviously habits, the success with which a 'weaning' treatment can often be applied to the victims of unhealthy indulgence of passion, or of mere complaining or irascible disposition, shows us how much the morbid manifestations themselves were due to the mere inertia of the nervous organs, when once launched on a false career.

Can we now form a notion of what the inward physical changes may be like, in organs whose habits have thus [p.107] struck into new paths? In other words, can we say just what mechanical facts the expression 'change of habit' covers when it is applied to a nervous system? Certainly we cannot in anything like a minute or definite way. But our usual scientific custom of interpreting hidden molecular events after the analogy of visible massive ones enables us to frame easily an abstract and general scheme of processes which the physical changes in question may be like. And when once the possibility of some kind of mechanical interpretation is established, Mechanical Science, in her present mood, will not hesitate to set her brand of

ownership upon the matter, feeling sure that it is only a question of time when the exact mechanical explanation of the case shall be found out. If habits are due to the plasticity of materials to outward agents, we can immediately see to what outward influences, if to any, the brain-matter is plastic. Not to mechanical pressures, not to thermal changes, not to any of the forces to which all the other organs of our body are exposed; for nature has carefully shut up our brain and spinal cord in bony boxes where no influences of this sort can get at them. She has floated them in fluid so that only the severest shocks can give them a concussion, and blanketed and wrapped them about in an altogether exceptional way. The only impressions that can be made upon them are through the blood, on the one hand, and through the sensory nerve-roots, on the other; and it is to the infinitely attenuated currents that pour in through these latter channels that the hemispherical cortex shows itself to be so peculiarly susceptible. The currents, once in, must find a way out. In getting out they leave their traces in the paths which they take. The only thing they can do, in short, is to deepen old paths or to make new ones; and the whole plasticity of the brain sums itself up in two words when we call it an organ in which currents pouring in from the sense-organs make with extreme facility paths which do not easily disappear. For, of course, a simple habit, like every other nervous event - the habit of snuffling, for example, or of putting one's hands into one's pockets, or of biting one's nails - is, mechanically, nothing but a reflex [p.108] discharge; and its anatomical substratum must be a path in the system. The most complex habits, as we shall presently see more fully, are, from the same point of view, nothing but concatenated discharges in the nerve-centres, due to the presence there of systems of reflex paths, so organized as to wake each other up successively - the impression produced by one muscular contraction serving as a stimulus to provoke the next, until a final impression inhibits the process and closes the chain. The only difficult mechanical problem is to explain the formulation *de novo* of a simple reflex or path in a pre-existing nervous system. Here, as in so many other cases, it is only the *premier pas qui coûte*. For the entire nervous system is nothing but a system of paths between a sensory *terminus a quo* and a muscular, glandular, or other *terminus ad quem*. A path once traversed by a nerve-current might be expected to follow the law of most of the paths we know, and to be scooped out

and made more permeable than before; and this ought to be repeated with each new passage of the current. Whatever obstructions may have kept it at first from being a path should then, little by little, and more and more, be swept out of the way, until at last it might become a natural drainage-channel. This is what happens where either solids or liquids pass over a path; there seems no reason why it should not happen where the thing that passes is a mere wave of rearrangement in matter that does not displace itself, but merely changes chemically or turns itself round in place, or vibrates across the line. The most plausible views of the nerve-current make it out to be the passage of some such wave of rearrangement as this. If only a part of the matter of the path were to 'rearrange' itself, the neighboring parts remaining inert, it is easy to see how their inertness might oppose a friction which it would take many waves of rearrangement to break down and overcome. If we call the path itself the 'organ,' and the wave of rearrangement the 'function,' then it is obviously a case for repeating the celebrated French formula of '*La fonction fait l'organe.*' So nothing is easier than to imagine how, when a current once has traversed a path, it should traverse it more readily still a second time. But what made it ever traverse it the first time? In answering this question we can only fall back on our general conception of a nervous system as a mass of matter whose parts, constantly kept in states of different tension, are as constantly tending to equalize their states. The equalization between any two points occurs through whatever path may at the moment be most pervious. But, as a given point of the system may belong, actually or potentially, to many different paths, and, as the play of nutrition is subject to accidental changes, *blocks* may from time to time occur, and make currents shoot through unwonted lines. Such an unwonted line would be a new-created path, which if traversed repeatedly, would become the beginning of a new reflex arc. All this is vague to the last degree, and amounts to little more than saying that a new path may be formed by the sort of *chances* that in nervous material are likely to occur. But, vague as it is, it is really the last word of our wisdom in the matter.

Your Score

10

| | | | | | | | | | | |
|-----|--|---|---|---|---|---|---|---|---|------------|
| 1. | How do you think you did on the perceptual intelligence task? | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Very Poor | | | | | | | | | Very Well |
| 2. | How would you evaluate your perceptual skills? | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Very Poor | | | | | | | | | Very Well |
| 3. | How well do you feel you performed on the perceptual intelligence task? | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Very Poor | | | | | | | | | Very Well |
| 4. | Regardless of your score, how do you <u>feel</u> about your performance? | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Very Unhappy | | | | | | | | | Very Happy |
| 5. | Please rate your opponent's perceptual intelligence. | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Very Poor | | | | | | | | | Very Well |
| 6. | How well do you think the other participant did on the perceptual intelligence task? | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Very Poor | | | | | | | | | Very Well |
| 7. | Compared to the other participant, how do you think you performed on the perceptual intelligence task? | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Worse | | | | | | | | | Better |
| 8. | Please rate your perceptual intelligence. | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Very Poor | | | | | | | | | Very Well |
| 9. | Please rate your opponents perceptual intelligence. | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Very Poor | | | | | | | | | Very Well |
| 10. | How good at measuring perceptual ability do you think this task was? | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Very Bad | | | | | | | | | Excellent |

APPENDIX E

Post-Test Questionnaire - Observers

Score for Person A _____ Score for Person B _____

Directions: After scores have been calculated by the test-takers, please evaluate them as they complete their post-test questionnaires evaluations.

1. How do you think person **A** did on the perceptual intelligence task?

| | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|-----------|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Very Poor | | | | | | | | Very Well | |
2. How do you think person **B** did on the perceptual intelligence task?

| | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|-----------|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Very Poor | | | | | | | | Very Well | |
3. Please rate person **A's** perceptual abilities.

| | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|-----------|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Very Poor | | | | | | | | Very Well | |
4. Please rate person **B's** perceptual abilities.

| | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|-----------|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Very Poor | | | | | | | | Very Well | |
5. Compared to person **A**, how do you think person **B** performed on the perceptual intelligence task?

| | | | | | | | | | |
|-------|---|---|---|---|---|---|---|--------|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Worse | | | | | | | | Better | |
6. Compared to person **B**, how do you think person **A** performed on the perceptual intelligence task?

| | | | | | | | | | |
|-------|---|---|---|---|---|---|---|--------|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Worse | | | | | | | | Better | |
7. Please rate your perceptual intelligence.

| | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|-----------|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Very Poor | | | | | | | | Very Well | |
8. I believe that there should be more questions on the test.

| | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Strongly Disagree | | | | | | | | Strongly Agree | |
9. How good at measuring perceptual ability do you think this task was?

| | | | | | | | | | |
|----------|---|---|---|---|---|---|---|-----------|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Very Bad | | | | | | | | Excellent | |
10. If the task were in color, it would be easy to do.

| | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Strongly Disagree | | | | | | | | Strongly Agree | |

APPENDIX F

Complete Means and Standard Deviations for the Ratings of Actors and Confederates

| Rater | Target | | | |
|--------------------------|----------|-----------|--------------|-----------|
| | Actors | | Confederates | |
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Low Task Relevancy | | | | |
| Affirmed Actor | 3.78 | 1.48 | 7.00 | .77 |
| Non- Affirmed Actor | 4.17 | 2.12 | 7.17 | .83 |
| Affirmation Total | 3.93 | 1.74 | 7.07 | .78 |
| Expectant Observer | 3.81 | 1.44 | 6.48 | 1.72 |
| Non-Expectant Observer | 4.33 | 1.33 | 6.67 | 1.61 |
| Expectancy Total | 4.05 | 1.39 | 6.56 | 1.65 |
| Low Task Relevancy Total | 4.00 | 1.54 | 6.78 | 1.36 |

| High Task Relevancy | | | | |
|---------------------------|------|------|------|------|
| Affirmed Actor | 2.50 | 1.78 | 7.17 | .94 |
| Non- Affirmed Actor | 3.71 | 1.77 | 7.36 | .63 |
| Affirmation Total | 3.15 | 1.85 | 7.27 | .78 |
| Expectant Observer | 3.94 | 1.39 | 7.29 | .85 |
| Non-Expectant Observer | 3.59 | 1.15 | 7.07 | .83 |
| Expectancy Total | 3.73 | 1.24 | 7.16 | .83 |
| High Task Relevancy Total | 3.52 | 1.51 | 6.99 | 1.13 |
| Total Actor | 3.57 | 1.82 | 7.16 | .78 |
| Total Observer | 3.88 | 1.32 | 6.88 | 1.31 |

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