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The Self in Impression Formation: Trait Centrality and Social Perception

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A pretest was used to identify whether the traits of honesty or intelligence were either central or peripheral to individual subjects' self-conceptions. In a subsequent impression formation task, these subjects' impressions of others were influenced by both subject trait centrality and judgment dimension. When presented with target descriptions containing both positive and negative behaviors, the impression judgments of subjects for whom the trait of honesty was central were more influenced by dishonest behaviors than subjects for whom the trait of honesty was peripheral, and the impression judgments of subjects for whom the trait of intelligence was central were more influenced by intelligent behaviors than subjects for whom the trait of intelligence was peripheral. Other data suggest that these effects were due to the fact that centrality affected the influence of negative cues on impressions: Trait-central subjects rated dishonest targets as more dishonest than trait-peripheral subjects, but trait-central subjects rated stupid targets as less stupid than trait-peripheral subjects. The implications of the obtained results for potential motivational and cognitive mediators of the impact of the self on impressions of others are discussed.

The idea that the self-concept profoundly influences perceptions of others emerged in early theories of the self (James, 1890/1950; Mead, 1934). This notion was central to early theorizing in both social psychology

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(Krech & Crutchfield, 1948) and personality (Combs & Snygg, 1959) and has been carried forward into the mainstream of modern psychological theory. Markus, Smith, and Moreland (1985, p. 1494) express views typical of many contemporary theorists when they assert, "The self-concept provides a framework for the perception and organization of our own life experiences."

The ideas that the self influences perceptions of others is supported by several studies. For example, research into the self-perceived "centrality" of traits, or the extent to which people are "schematic" or "aschematic" for a trait, has indicated that the self can affect: (1) the trait categories that are spontaneously activated or selected when thinking about a target person (e.g., Shrauger & Patterson, 1976); (2) the information about others that is actively sought or that attracts attention for further processing (e.g., Fong & Markus, 1982; Riggs & Cantor, 1984); (3) the selective storage of information about others (e.g., Carpenter, 1988); and (4) how one "weighs" information when confronted with multiple cues that describe others (e.g., Carpenter, 1988).

However, despite the support provided by these studies, it is not necessarily the case that the role of the self in social judgment is empirically well-documented; nor are the mechanisms by which the self exerts its influence. This position was strongly articulated by Wyer and Srull (1989, p. 439): "It seems almost self-evident that people use information about themselves as a basis for making inferences about others. Because of this, the lack of empirical support for this hypothesis is somewhat surprising."

Given its long history, nowhere is this lack of support more surprising than in the area of impression formation. As Carpenter (1988) notes, there is surprisingly little research directly investigating the relation between the self and impressions of others, and the extant research is often contradictory in its implications. For example, Carpenter (1988) found that, when forming impressions of a target's extraversion, subjects who perceived the trait of extraversion as central to their own self-concept weighed extraverted information more heavily than subjects who perceived extraversion as peripheral to their own self-concept. However, Fong and Markus (1982) found that schematics made their judgments along schema-relevant dimensions more confidently than aschematics, but the judgments themselves did not differ. Markus *et al.* (1985) found that gender schematics rated a target as more masculine than did gender aschematics, but a conceptually similar study by Park and Hahn (1988) failed to find such effects. Catrambone and Markus (1987) found that those subjects who were schematic for independence rated a confederate who acted in a dependent fashion as more dependent than did independence-aschematic subjects, but in the same study, it was also found

matic subjects in terms of the independence ratings of a confederate who acted in an independent fashion.

Given to the inconsistency of the prior research, it seems reasonable to assume that in these prior studies, if the self was having an impact on impressions of others, it was doing so only under specific conditions. One of those conditions might be the nature of the stimulus information. This possibility is suggested by the results of the Catrambone and Markus (1987) study, which found that those who were highly schematic for independence were more influenced by dependent behaviors, but not independent behaviors, than those who were aschematic for independence.

This asymmetry is reminiscent of the asymmetry often observed by researchers looking at weighting biases in impression formation. Specifically, research in the area of impression formation has often noted that negative information generally has more impact on person impressions than positive information (see Skowronski & Carlston, 1989). From this perspective, then, the effects observed by Catrambone and Markus suggest an enhanced negativity effect in those who are schematic for a trait.

If the Catrambone and Markus study is an example of an enhanced negativity effect in schematic individuals, then it is reasonable to speculate about the possible causes of that enhancement. One possibility lies in the notion of information diagnosticity. Skowronski and Carlston (1989) have argued that one possible cause of negativity effects lies in the fact that negative information is often thought by raters to be more diagnostic of trait category membership than positive information. Hence, individuals who are self-schematic for a trait may simply be more influenced by highly diagnostic information than individuals who are not self-schematic for a trait.

A second possibility exists, one that lies in avoidance motivation. Peeters and Czapinski (1991) have argued that one possible cause of negativity effects lies in the fact that negative stimuli cause avoidance motives that overwhelm the approach motives induced by positive stimuli. From this perspective, then, the enhanced negativity effect observed in the Catrambone and Markus experiment might be due to the fact that schematics are more highly threatened by negative information than aschematics, are more motivated to avoid such targets, and hence, give the negative characteristics of those targets higher weight in impressions.

Because negativity and perceived diagnosticity are frequently correlated (negative information is generally perceived to be more diagnostic than positive information), it is difficult to disentangle these two explanations. However, at least one judgment dimension, intelligence/stupidity, exhibits properties that allow differential theory testing. For judgments of intelligence/stupidity, positive (i.e., intelligent) behaviors are perceived as more diagnostic than negative (i.e., stupid) behaviors (Skowronski &

Carlston, 1987). Furthermore, in contrast to the usual finding of negativity effects, positive behaviors have more influence than negative behaviors in intelligent/stupid trait judgments (Skowronski and Carlston, 1987, 1992; also see Wojciszke, Brycz, & Borkenau, 1993).

The present experiment was concerned with two trait dimensions: intelligence/stupidity and honesty/dishonesty. Because of the different judgment patterns on the two trait dimensions (negativity bias for honesty/dishonesty, positivity bias for intelligence/stupidity), it is conceptually possible to separate the motivational and diagnosticity explanations. Consider an experiment in which subjects make judgments of targets who are described by contradictory information; that is, some of the information is positive, and the rest is negative. If trait-central subjects are especially influenced by diagnostic information, then one would expect the trait judgments of trait-central subjects to evince an enhancement of *both* the negativity bias (for honest/dishonest judgments) and the positivity bias (for judgments of intelligence/stupidity). On the other hand, if trait-central subjects are especially avoidant of negativity, then one would expect an *enhancement of the negativity bias* for judgments of honesty/dishonesty and *a reduction of the positivity bias* for judgments of intelligence/stupidity.

The number of behaviors contributing to the inconsistency could also help to discriminate between the two theories. Imagine one target described in terms of one positive and one negative behavior (two-behavior set) and a second target in terms of two positive and two negative behaviors (four-behavior set). From a diagnosticity standpoint, the biases observed (negativity for honesty/dishonesty, positivity for intelligence/stupidity) should increase as the number of behaviors increase. That is, if one were to think in terms of positive–negative behavior pairs, each higher diagnosticity behavior (intelligent/dishonest) in the pair provides evidence that slightly outweighs the less diagnostic behavior in the pair (honest/stupid), so that overall, adding inconsistent pairs to the set should yield a magnification of the biases. Furthermore, from the diagnosticity view, if trait-central people are even more influenced than trait-peripheral people by highly diagnostic items, then the trait-central people should show this magnification to an even greater extent than trait-peripheral people.

By similar reasoning (i.e., each additional inconsistent pair yields additional avoidance motivation because the bad item in the pair will be more powerful than the good item), if motivation were responsible for the effect of the self on impression judgments, then adding additional inconsistent item pairs to the set should cause a net gain in avoidance tendencies. Hence, from a motivational perspective, in comparing the four-item to the two-item conditions, one would expect a greater negativity effect for honesty/dishonesty judgments, but a smaller positivity effect for intelligence/stupidity judgments.

METHOD

Subjects

Subjects consisted of 140 students from introductory psychology classes at the Newark Campus of The Ohio State University. Subjects participated in the experiment in partial fulfillment of course requirements. Each experimental session involved from one to four subjects. Subjects within each session were randomly assigned to either the intelligence/stupidity judgment condition or the honesty/dishonesty judgment condition.

Procedure

Trait-centrality pretest. At the beginning of the academic quarter, subjects were given the opportunity to participate in a "mass testing" session. This session is typically used for pretesting and to obtain personality measures from subjects. One of the measures included in the pretest packet pertained to the present experiment and asked subjects to rate 16 trait terms (intelligent and honest among them) in three different ways. First, subjects were asked to rate how central each trait was to the subject's self-conception. This rating was made on a 1 *(not at all central to my self conception)* to 9 *(extremely central to my self-conception)* scale. Second, subjects were asked to rate how often they behaved in accordance with the trait. This rating was made on a 1 *(never)* to 9 *(always)* scale. Third, subjects were asked to rate how badly they would feel if they were forced to conclude that, based on a review of the evidence, they did not have the trait. This rating was made on a 1 *(not at all bad)* to 9 *(very bad)* scale.

Impression experiment. Subjects participated in the impression formation study from 1 to 8 weeks after taking the pretest. Upon their arrival for an experimental session, subjects were seated in individual cubicles, were told that the experiment was concerned with how people form impressions of others, and finally, that they would be given the opportunity to form and report impressions of hypothetical targets described by two to four behaviors. Subjects were told that they could proceed at their own pace through the stimulus booklet, but that they could not go back and look at the behaviors of previously rated targets, so that they should take their time reading the behaviors and rating the targets. Subjects were also told that the participants in a session would all have to finish before proceeding to the next task in the experiment.

Subjects were given a stimulus booklet that described 11 targets, one behavior per page. Colored spacer pages demarked the behavior set for each target, indicating the beginning and the end of a target's behavior set. The ending page of a target behavior set also asked subjects to turn to the response booklet and to report a response.

The booklet was structured so that four targets were described by behaviors that were inconsistent with each other. The behaviors included in each set came from behaviors pretested for previous research by Skowronski and Carlston (1987, 1992). The selected behaviors were approximately equivalent in their opposing trait implications, but had differing diagnosticity patterns (intelligent more diagnostic than stupid, dishonest more diagnostic than honest).

The inconsistent targets were always persons 2, 4, 8, and 11 in the stimulus booklet. Two of these inconsistent targets (persons 2 and 11) were described by one positive and one negative behavior. The other two inconsistent targets (persons 5 and 8) were described by two positive and two negative behaviors. The order of positive and negative behavior presentation was varied across stimulus persons, so that the positive information in a mixed

set appeared first for two of the targets (persons 2 and 8) and last for the other two targets (persons 5 and 11). The other targets in the booklet were described by sets of behaviors that were internally consistent: either all positive (persons 1 and 10) all negative (persons 4 and 7) or neutral (persons 3, 6, and 9).

Subjects in the intelligence conditions were given a booklet that described the targets with behaviors that had been pretested in terms of their implications for the traits intelligent and stupid. These subjects were asked to read these behaviors and to rate the targets described by these behaviors on a 9-point scale, with -4 corresponding to *very stupid,* +4 to *very intelligent,* and 0 to *I can't decide if the person is intelligent or stupid.* Above the number line, the scale was also broken by a vertical line at the scale midpoint, with an arrow pointing to the left of the midpoint accompanied by the label *Person is stupid* and an arrow pointing to the right of the midpoint accompanied by the label *Person is intelligent.*

Subjects in the honesty conditions were given a booklet that described the targets with behaviors that had been pretested in terms of their implications for the traits honest and dishonest. These subjects were asked to read these behaviors and to rate the targets described by these behaviors on a 9-point scale, with -4 corresponding to *very dishonest,* +4 to *very honest,* and 0 to *I can't decide if the person is honest or dishonest.* Above the number line, the scale was broken by a vertical line at the scale midpoint, with an arrow pointing to the left of the midpoint accompanied by the label *Person is dishonest* and an arrow pointing to the right of the midpoint accompanied by the label *Person is honest.*

After all subjects had completed their 11 ratings, they proceeded to the next task, a task irrelevant to the present experiment. After all tasks had been completed, subjects were debriefed and dismissed.

RESULTS AND DISCUSSION *Centrality Pretest Ratings*

The intelligence pretest ratings of subjects given the intelligence book-lets, and the honesty pretest ratings of those given the honesty booklets, were used to determine whether to include each subject in the central or peripheral trait group. The three pretest ratings were all significantly correlated with each other (lowest r (138) = *.40,* $p < .001$), *so* these ratings were summed to provide an overall centrality index. A median split, separately performed on the index for each trait, was used to classify each subject with respect to centrality. For honesty, subjects with scores at or above *25* were placed into the Central category, and subjects with scores below *25* were placed into the Peripheral category. For intelligence, subjects with scores at or above *24* were placed into the Central category, and subjects with scores below 24 were placed into the Peripheral category.

Impression ratings: Inconsistent Sets

Subjects' impression ratings for the inconsistent target sets were entered into a *2* (Subject Trait Centrality: central trait subjects, peripheral trait subjects) x *2* (Judgment Type: intelligence judgment, honesty judgment) x 2 (Behavior Set: two, four) x 2 (Replications) ANOVA. This analysis yielded a significant Behavior Set x Trait Centrality x Judgment Type interaction, F(1, 136) = *5.22, p < .03.* The means for this interaction are presented in Table 1.

TABLE 1
INTERACTION BETWEEN JUDGMENT TYPE, SUBJECT TRAIT CENTRALITY, AND NUMBER OF BEHAVIORS FOR **IMPRESSION** JUDGMENTS OF TARGETS DESCRIBED BY MIXED BEHAVIOR SETS

	Number of behaviors in set	
Subject trait centrality	Two	Four
	Honesty judgments	
Central subjects	.138	-.819
Peripheral subjects	-.140	-.472
	Intelligence judgments	
Central subjects	-.276	1.062
Peripheral subjects	-.076	.679

These data suggest that self trait-centrality is related to the impressions that are formed of others. For the four-behavior inconsistent sets, subjects who were classified as central with respect to honesty provided substantially more negative ratings than subjects who were classified as peripheral with respect to honesty; by comparison, subjects who were classified as central with respect to intelligence provided ratings that were substantially more positive than subjects who were classified as peripheral with respect to intelligence. For the two-behavior mixed sets, there was little difference in the impressions of central and peripheral subjects. Hence, although obvious only in the four-item conditions, these data are congruent with a diagnosticity explanation: enhanced positivity effects in judgments of intelligence/stupidity enhanced negativity effects in judgments of honesty/dishonesty.

There were only two other significant effects in the analysis. The first was a main effect for Judgment Type, F(1, 136) = 13.34, $p < .001$, which simply indicates that the targets tended to be viewed as slightly dishonest *(M = — .292)* and slightly intelligent *(M = .339).* The second significant effect was a Behavior Set x Judgment Type interaction, F(1, *136) = 55.75, p* < .001. The means for this effect indicate that negativity in honesty/dishonesty judgments and positivity in intelligence/stupidity judgments increased with the number of items included in the behavior sets (Honesty/Two = — .01, Honesty/Four = — .646; Intelligence/Two = — .176, Intelligence/Four = *.870),* an outcome that also replicates prior research (Skowronski & Carlston, 1992).

Impression Ratings: Consistent Sets

Although the focus of our a priori predictions were clearly on the inconsistent behavior sets, and in how trait centrality affected the use of behaviors within those inconsistent sets, we reasoned that analysis of the judgments produced in response to the consistent sets of behaviors could

TABLE 2
INTERACTION BETWEEN JUDGMENT TYPE, SUBJECT TRAIT CENTRALITY, AND BEHAVIOR SET FOR IMPRESSION JUDGMENTS OF TARGETS DESCRIBED BY CONSISTENT BEHAVIOR SETS

	Judgment type	
Subject trait centrality	Honesty	Intelligence
	Positive behavior set	
Central subjects	3.53	3.35
Peripheral subjects	3.47	3.53
	Neutral behavior set	
Central subjects	.36	.59
Peripheral subjects	.32	.64
	Negative behavior set	
Central subjects	— 3.39	— 2.38
Peripheral subjects	— 2.97	— 2.83

also be informative. More specifically, we reasoned that a pattern of asymmetry similar to that observed by Catrambone and Markus (1987) might also appear in these data.

As with the inconsistent sets, the exact nature of that asymmetry would depend on the theoretical mediator responsible for the Catrambone and Markus effects. If motivation was responsible, then one would expect to find that the judgments of trait-central subjects would vary only for negative behavior sets, with trait-central subjects rating both dishonest and stupid targets more negatively than trait-peripheral subjects. However, it is also possible that trait-central subjects are particularly receptive to the implications of higher diagnosticity cues on a trait dimension, so that they would be more responsive to dishonesty cues (but not honesty cues), and to intelligence cues (but not stupidity cues), than trait-peripheral subjects.

To perform this analysis, for each subject we averaged the ratings for each behavior set valence and entered these averages into a 3 (Behavior Set Valence: positive, neutral, negative) x 2 (Judgment Type: intelligence, honesty) x 2 (Trait Centrality: central, peripheral) ANOVA.

The results of this analysis provide some insight into the impression ratings obtained with the mixed sets. More specifically, the pattern of means obtained for the Behavior Set Valence x Judgment Type x Trait Centrality interaction, $F(2, 272) = 3.47$, $p < .04$, suggests that responses to negative behaviors may be particularly affected by Trait Centrality (see Table 2). these means indicate that, as expected from both the diagnosticity and motivational approaches, subjects who were central for honesty rated targets described by dishonest behaviors more negatively than subjects who were peripheral for honesty. However, as predicted by neither the diagnosticity nor the motivational approach, subjects who were central

for intelligence rated targets described by stupid behaviors as less negative than subjects who were peripheral for intelligence. A simple effects test conducted only on the negative behavior sets confirmed that this Trait Centrality x Judgment Type interaction was significant, $F(1, 136) = 3.96$, $p < .05$.

There were three other significant effects in this analysis. The first was an obvious main effect for Behavior Set Valence, $F(2, 272) = 1540.55$, $p < .001$, indicating that targets described by positive sets were rated positively, targets described by neutral sets were given ratings near the neutral point, and targets described by negative sets were rated negatively. The second was a Judgment Type main effect, $F(1, 136) = 11.16$, $p < .001$, indicating that, overall, intelligence/stupidity ratings tended to be more positive ($M = .48$) than honesty/dishonesty ratings ($M = .22$). The third was a Behavior Set Valence x Judgment Type interaction, $F(2, 272) = 3.89$, $p < .03$, indicating that impressions were about equal for targets described by positive (Honesty $M = 3.5$, Intelligence $M = 3.44$) and neutral (Honesty $M = .34$, Intelligence $M = .61$) behavior sets, but that there was a difference in the impressions provided for targets de-scribed by negative sets (Honesty $M = — 3.18$, Intelligence $M = — 2.60$). Obviously, interpretation of these three effects is constrained by the significant three-way interaction reported earlier.

DISCUSSION

The results of this experiment: (a) suggest that the self does have an impact on impressions of others, (b) provide some of the limiting conditions for this effect, and (c) suggest some specific causal mechanisms that underlie this effect. In inconsistent behavior sets, the impressions of trait-central subjects were more affected by higher diagnosticity information than the impressions of trait-peripheral subjects, particularly when the diagnostic information was replicated (i.e., represented by more than one behavior). In consistent behavior sets, self-trait centrality affected perceptions of others only when the targets were described by negative behaviors, not when the targets were described by neutral or positive behaviors.

Furthermore, the data suggest that these effects were due to cognitive, not motivational, causes. The enhanced positivity effect observed for the mixed-behavior intelligence judgments, and the less negative ratings for consistent sets of unintelligent behaviors, makes an avoidance-based motivational explanation for the impact of the self on impressions of others tenuous. However, this should not be construed as a suggestion that motivation does not have a role to play in the possible interrelationship between the self and other-perception. Instead, we simply suggest that, under the circumstances that our experiments simulated, the operation of such a motivational mechanism is rather unlikely.

Unfortunately, the diagnosticity hypothesis that we advocated at the outset of this manuscript also seems inadequate. Although the predicted enhancement of negativity effects (for honesty/dishonesty judgments) and positivity effects (for intelligence/stupidity judgments) was observed, it was limited to specific conditions (the four-item inconsistent sets). Furthermore, the asymmetric effects of centrality on the impressions of targets described in terms of consistent/dishonest or consistent/stupid behavior sets, enhancing negativity for honesty/dishonesty judgments and reducing negativity for intelligence/stupidity judgments, in conjunction with the absence of any relation between self-trait centrality and judgment positivity for targets described in terms of sets of consistent positive behaviors, cause difficulty for our original ideas about the relation between diagnosticity, trait centrality, and impressions.

However, it should be noted that on *a relative* basis, these ideas still hold. That is, these data are quite consistent with the notion that trait centrality causes a divergence in the impact of higher and lower diagnosticity cues. The sticking point is in the primary cause of that divergence: for some judgments (i.e., honesty/dishonesty) that divergence seems to be driven primarily by the heightened influence of higher diagnosticity cues, whereas for other judgments (i.e., intelligence/stupidity) that divergence seems to be driven by the lowered influence of lower diagnosticity cues.

It ought to be noted that we do not assume that diagnosticity is the only potential mechanism that can mediate between the self and impressions of others. Other cognitive processes, engendered in other circum-stances, might legitimately lead to differences between central trait and noncentral trait subjects. For example, some nondiagnostic behaviors are ambiguous. These behaviors might not *individually* indicate trait category membership, but might be construed to do so in the context of other information. Hence, depending on the context, sometimes nondiagnostic behaviors might also yield increases in impressional biasing. This effect is understandable in light of the cognitive processes that are involved in impression formation and again point to a careful consideration of those processes in predicting the impact of the self on impressions.

CONCLUSIONS

Although it may be intuitively obvious to some that the self-concept affects social judgments, the ways in which these effects manifest themselves, the conditions under which these effects manifest themselves, and the possible cognitive and affective pathways that mediate these effects are by no means obvious. It remains the task of future research to delineate these pathways, so that we may have a more precise understanding of how, and when, the self affects the ways in which we cognize the social

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