

When Do Self-Schemas Shape Social Perception?: The Role of Descriptive Ambiguity¹

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An experiment tested the hypothesis that self-schemas shape social perception when the target description is ambiguous. On the basis of a pretest, we derived a target description that was ambiguous on independence–dependence (i.e., the target, Chris, was rated as equally likely to be independent or dependent). Participants classified as independence-schematics, dependence-schematics, or aschematics read the description, predicted Chris' behavior, and indicated their impression of Chris. Consistent with the hypothesis, self-schemas had an assimilative effect on social perception: Relative to aschematics, independence-schematics rated Chris as more independent and more likely to behave independently, whereas dependence-schematics rated Chris as less independent and less likely to behave independently. By assimilating a substantial portion of the social world (the portion that is ambiguous), self-schemas serve a motivational function: They foster the stability, validation, and perpetuation of the self-system.

The connection between self-views and perceptions of others is a venerable idea pondered by the likes of Allport (1937), Freud (1924/1956), Heider (1958), James (1890/1950), Kelly (1955), and Mead (1934). This connection has been implicated empirically in occupational settings (Stagner, 1948), acquaintanceships (Shrauger & Patterson, 1974), friendships (Snyder, Gangestad, & Simpson, 1983), family dynamics (Schaefer, 1997), and romantic relationships (Cantor, Mackie, & Lord, 1984).

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The social cognition movement sharpened this connection. One contribution of the movement was methodological. To begin with, the movement introduced and popularized an impressive array of procedures and dependent measures that fostered insights into cognitive processes underlying the self–other connection (Kihlstrom & Klein, 1994; Rogers, 1981; Linville & Carlston, 1994). Additionally, the movement offered a productive operational definition of self-views, namely self-schemas (Markus, 1977). Self-schemas are defined as specific self-conceptions that the individual regards as both highly self-descriptive and highly important to possess. Self-schemas are derived experimentally by asking participants to rate themselves on traits or trait dimensions, such as extraversion–introversion (Fong & Markus, 1982), anxiety (Riggs & Cantor, 1984), independence (Catrambone & Markus, 1987), masculinity–femininity (Markus, Crane, Bernstein, & Siladi, 1982), career orientation (Carpenter, 1988), or honesty and intelligence (Sedikides & Skowronski, 1993).

More importantly, the social cognitive movement led to substantial theoretical advances. Not only do self-schemas describe a core part of the individual's self-concept, they also direct and organize efficiently the processing and evaluation of self-relevant (Markus, 1977; Sedikides, 1993) and other-relevant (Markus & Smith, 1981; Sedikides & Green, 2000) information. The present paper focuses on the role that self-schemas play in shaping the way in which individuals evaluate information about another person.

One of the most remarkable theoretical legacies of the social cognitive movement was the proposal that self-schemas had motivational functions: They serve an egocentric, self-preserving, and stabilizing role in the self-system. The connection between self-schemas and social perception is a case in point. Several lines of research have converged to the realization that self-schemas color other impressions in a way that protects and preserves existing self-conceptions. Self-schemas are bolstered and validated by assimilating impressions of others into a coherent, orderly, and self-perpetuating view of the social world (Alicke & Largo, 1995; Dunning & Beauregard, 2000; Lewicki, 1983). Self-schemas afford a sense of predictability and control to an otherwise chaotic environment (Sedikides & Strube, 1997). Impressions are constructed partly in the service of self-schema confirmation and maintenance.

A major source of this legacy is research by Markus and her colleagues, who examined the role of self-schemas in the impression that participants (perceivers) form about another person (target), and their prediction of the target's behavior. We will review this research and embellish it with additional relevant literature.

INFLUENCE OF SELF-SCHEMAS ON SOCIAL PERCEPTION: A REVIEW OF THE LITERATURE

As just stated, a lasting legacy of the social cognitive movement is the postulate that, due to their egocentric and self-perpetuating nature, self-schemas have

an assimilative effect on target impressions. We will refer to this postulate as the assimilation hypothesis. This hypothesis is the crown jewel of the social cognitive movement's legacy to the relation between self-views and social perception. In research testing the assimilation hypothesis, target impressions typically are operationalized in terms of self-schema relevant traits (e.g., trait ratings, target trait-descriptiveness judgments).

Surprisingly, despite the plausibility of the assimilation hypothesis, the data have not been uniformly kind to it. Indeed, the bulk of self-schema research appears to disconfirm the hypothesis. In research by Catrambone and Markus (1987), Fong and Markus (1982), Markus, Smith, and Moreland (1985), and Park and Hahn (1988), the impressions of participants (who were schematic and aschematic on dimensions such as introversion–extraversion and masculinity–femininity) were not influenced by their self-schemas. However, other research has supported the assimilation hypothesis. For example, Riggs and Cantor (1984) found that high anxiety individuals rated a target as more anxious than did low anxiety individuals. In a similar vein, Sedikides and Skowronski (1993) found that intelligence and honesty schematics were more influenced by diagnostic (i.e., schema-relevant) information than were aschematics. In addition, Carpenter (1988) reported that extraversion schematics weighted schema-relevant information more heavily than did aschematics when making judgments.

What differentiates the studies that disconfirm the assimilation hypothesis from those that confirm it? We argue that a critical difference lies in the ambiguity of target descriptions. We define descriptive ambiguity in terms of the presence of an approximately equal proportion of schema-consistent and schema-inconsistent information (Srull & Wyer, 1989). Past research that has yielded support for the assimilation hypothesis has used target profiles that were ambiguous (Carpenter, 1988; Riggs & Cantor, 1984; Sedikides & Skowronski, 1993), whereas research that disconfirmed the assimilation hypothesis has used target descriptions that were either unambiguous (Catrambone & Markus, 1987) or largely irrelevant (Fong & Markus, 1982; Markus et al., 1985; Park & Hahn, 1988) to participants' self-schemas.

Self-schemas are chronically accessible cognitive structures (Markus, 1977). As such, they will exert assimilative effects on target impressions when the target description is both ambiguous and schema relevant (i.e., composed of a mixture of schema-consistent and schema-inconsistent information). This proposition was articulated by Sedikides and Skowronski (1991a; see also Sedikides & Skowronski, 1991b) in their law of cognitive structure activation as follows:

When a stimulus is ambiguous enough to be encodable as an instance of multiple cognitive structures, the stimulus will be most likely encoded as an instance of that cognitive structure that is the most activated in memory and is the most semantically similar to the stimulus. This encoding will, in turn, affect structure-relevant judgmental and behavioral processes. (p. 170)

Thus, we argue that some null effects are the result of providing schema-irrelevant target information, whereas other null effects are the result of providing unambiguous target information that is relatively impervious to assimilative effects.

This perspective is consistent with the work of Lambert and Wedell (1991), who hypothesized that judgments about ambiguous target information would be influenced by self-schemas serving as a judgmental anchor, whereas judgments about unambiguous target information would be the result of a different, more affectively charged process. In a series of experiments, participants rated behavioral information (i.e., discrete behaviors rather than human targets performing such behaviors) on the trait sociability that was either ambiguous, unambiguous, or irrelevant. Consistent with the assimilation hypothesis, high-sociable participants rated ambiguous sociable behaviors (e.g., “installed a telephone answering machine”) as more sociable than did low-sociable participants. However, the assimilation hypothesis was not supported in the case of unambiguous behaviors—if anything, an occasional contrast effect was reported. Finally, although assimilation effects were obtained for ambiguous behaviors, assimilation effects were not obtained for irrelevant behaviors (i.e., behaviors with no implications for the trait sociability), even though both classes of behaviors were of low diagnosticity with respect to the relevant judgment.

Now, we discuss in greater detail the relevant past research in order to bolster our argument that the ambiguous or unambiguous nature of the target information is responsible for the inconsistent support of the assimilation hypothesis.

In an experiment by Fong and Markus (1982), extraversion-schematics, introversion-schematics, and aschematics listened to a recording of a target responding to interview questions. The answers in the interview were deliberately constructed in order to “convey very little information as to the target person’s extraversion or introversion” (p. 196). Subsequently, participants rated the target on 10 extraversion-related bipolar scales (e.g., shy–outgoing). A null effect was obtained for participant schematicity: The three groups did not differ in their target impressions. The information conveyed via the taped interview was not ambiguous but irrelevant regarding the target trait dimension of extraversion–introversion.

In two experiments by Markus et al. (1985), masculinity-schematics and aschematics watched two segments of a film, one masculinity-irrelevant (e.g., a man eating an apple) and one masculinity-relevant (e.g., a man watching a baseball game). Subsequently, participants judged whether 60 trait adjectives (20 masculine, 20 feminine, 20 neutral; Bem, 1974) described the target, and they also indicated how much they liked the target. In Experiment 1, masculinity-schematics judged a higher number of masculine traits as target-descriptive than did aschematics, thus supporting the assimilation hypothesis. However, this finding was not replicated in Experiment 2 (i.e., a null effect was reported). Likeability judgments, collected in Experiment 1, also yielded a null effect: The two groups did not differ in their liking for the target. These weak results may be attributable to the use of

target descriptions that were largely irrelevant. In both experiments, the behavioral information provided by the film clips did not correspond to our definition of ambiguity because no schema-inconsistent information was made available; that is, only schema-irrelevant and schema-consistent behavior was portrayed.

In an experiment by Catrambone and Markus (1987), independence-schematics and aschematics asked a confederate 10 preselected questions and received 10 prepared answers. These answers were either independent-sounding (e.g., visiting parents infrequently) or dependent-sounding (e.g., visiting parents frequently). Again, a null effect was obtained: Independence-schematics did not differ from aschematics in their impressions of the target on the traits independent or dependent. This null effect is not surprising, given that the targets were deliberately constructed to be unambiguous. The behavioral feedback was “designed to be independent-sounding or dependent-sounding and [was] pilot-tested to insure that they were perceived this way” (p. 355).

In still another experiment, Park and Hahn (1988) asked masculinity-schematic and femininity-schematic (along with androgynous and undifferentiated) participants to judge on masculine, feminine, and neutral trait adjectives both (1) hypothetical targets who were described neutrally on sex-typedness and (2) real persons, two of whom were non-sex-typed (Prince, Bette Midler) and two of whom were sex-typed (Bruce Springsteen, Olivia Newton-John). True to form, the participant schematicity effect was not significant. Self-schemas played no role in schema-relevant target trait-descriptiveness judgments (i.e., assigning masculine or feminine traits to targets) or response times. Again, it appears that the target information was not ambiguous (i.e., a mixture of schema-consistent and schema-inconsistent information). The stories about hypothetical targets contained no “explicit mention of any gender-related attributes” (p. 68) and therefore arguably were irrelevant to the task at hand. In contrast, the real targets (e.g., Prince, Bruce Springsteen) were not ambiguous targets regardless of their designated sex-typedness. Neither the real nor the hypothetical targets presented truly ambiguous and relevant information regarding the target trait.

Other lines of research that support the assimilation hypothesis provided a mixture of schema-consistent and schema-inconsistent information regarding the target judgment. Riggs and Cantor (1984) asked anxiety-schematics and aschematics to select questions to ask a target, and then rate the target on anxiety. Participants with no preconceptions about the target appeared to use their self-concept in an assimilative manner in rating the target: Anxiety-schematics rated the target as more anxious than did aschematics.

Sedikides and Skowronski (1993) identified schematics and aschematics for the traits intelligence and honesty. Participants formed impressions of several hypothetical targets based on balanced sets of ambiguous behavioral information (e.g., an equal number of honest and dishonest behaviors). Schematics weighed

schema-relevant information more heavily in their target impressions than did their aschematic counterparts, supporting the assimilation hypothesis.

Finally, Carpenter (1988) asked extraversion-schematics and aschematics to rate 40 targets who were described ambiguously on extraversion; that is, the description of each target was accompanied by a rating on an extraversion scale (ranging from 1 [*low*] to 9 [*high*]), along with a rating on two other trait characteristics (activity level and religiosity), with the correlations among the three trait values practically fixed to zero. Compared to aschematics, extraversion-schematics weighed the extraversion trait ratings more heavily in their target impressions.

In summary, the seemingly contradictory findings of research on the role of self-schemas in target impressions can be accounted for in terms of target descriptive ambiguity. The unambiguous target descriptions in the disconfirming research (Catrambone & Markus, 1987; Fong & Markus, 1982; Markus et al., 1985; Park & Hahn, 1988) either severely limited the inferential scope of self-schemas or failed to supply cues that would facilitate schema activation. In contrast, the ambiguous target descriptions in the confirming research contained schema activation cues (Carpenter, 1988) or left enough ambiguity for self-schemas to affect interpretation and impressions (Riggs & Cantor, 1984; Sedikides & Skowronski, 1993).

INFLUENCE OF SELF-SCHEMAS ON SOCIAL PERCEPTION: THE PRESENT RESEARCH

The main objective of our investigation was to address the possibility that the contradictory findings of past research are due to using target descriptions that were either clear (i.e., unambiguous) or irrelevant to participants' self-schemas. Thus, the aspiration of our research was to provide a compelling test of the assimilation hypothesis by remedying the potential deficiencies of past research. Specifically, we conducted an experiment in which we used an ambiguous target description. Stated otherwise, the target essay contained both self-schema-consistent and self-schema-inconsistent information. The self-schema dimension that we employed was that of independence–dependence.

Another contribution of our research rests in the use of the complete schematicity trait dimension. Specifically, we identified independence-schematics, aschematics, and dependence-schematics in order to be able to assess whether target impressions vary along the full spectrum of schematicity. From a statistical vantage point, we wanted to assess the significance of the linear contrast for impression ratings: Do impressions of the aschematics fall in between the impressions of the two trait-schematic groups? To our knowledge, only one previous experiment (Fong & Markus, 1982) involved three schematicity groups; the groups pertained to the trait dimension of introversion–extraversion.

A third contribution of our experiments involves the assessment not only of target impression ratings but also of behavior predictions. The latter measure

has been used only in one experiment. Catrambone and Markus (1987) measured behavior predictions, but obtained mixed results. Independence-schematics (compared to aschematics) predicted that a dependent-sounding confederate would behave in a dependent fashion. However, independence-schematics did not differ from aschematics when making behavior predictions for an independent-sounding confederate.

In our experiment, independence-schematics, dependence-schematics, and aschematics read an ambiguous description of Chris (derived through pretesting). In order to devise a somewhat stronger test of the assimilation hypothesis than that used by previous supportive research (Carpenter, 1988; Sedikides & Skowronski, 1993), we used only one target, but provided a richer description of Chris. In an attempt to maximize the inferential grasp of self-schemas, we asked participants first to predict Chris' behavior and then indicate their impressions of Chris. Participants made behavior predictions by reading and responding to short vignettes. These four vignettes consisted of hypothetical situations; three were related to independence and one was a control vignette (Catrambone & Markus, 1987). Participants rated the likelihood that Chris would act independently versus dependently in each situation. Next, participants expressed their impressions of Chris through trait ratings on both the schema-relevant dimension of independence–dependence and a control trait dimension (i.e., organized–disorganized).

Guided by the assimilation hypothesis, we expected that, relative to aschematics, independence-schematics would make more independent behavior predictions about Chris, whereas dependence-schematics would make more dependent behavior predictions. This pattern would manifest itself through a statistically significant contrast testing a linear trend across the three schematicity groups. We anticipated that behavior prediction in an independence-unrelated situation would not differ across the three schematicity groups. Similarly, we predicted that, relative to aschematics, independence-schematics would rate Chris as more independent, whereas dependence-schematics would rate Chris as less independent. We anticipated that ratings on a control trait would not differ across the three groups.

PILOT STUDY

The objective of the pilot study was to derive an ambiguous target description. In both the pilot study and the main experiment, participants were University of North Carolina at Chapel Hill students fulfilling an introductory psychology course option. Twenty-four participants read the description of a fictional character named Chris (see Appendix). The description contained a roughly equal mix of independence-consistent behaviors (e.g., Chris had gone on a backpacking vacation to Europe) and dependence-consistent behaviors (e.g., Chris had weekly dinners with her parents).

Participants rated Chris on three independence trait synonyms (autonomous, independent, leader) and three dependence trait synonyms (submissive, dependent, follower), using an 11-point scale, with endpoints 1 (*does not describe Chris at all*) and 11 (*describes Chris very much*). We derived composite scores for independence by averaging the three independence-related words ($\alpha = .83$) and derived composite scores for dependence by averaging the three dependence-related words ($\alpha = .87$). The independence and dependence composites did not differ significantly, $t(23) = 1.26, p < .22$. Additionally, ratings on the independence composite ($M = 6.22$) did not differ significantly from the scale midpoint ($M = 6.00$), $t(23) = 1.32, p < .20$. Similarly, ratings on the dependence composite ($M = 5.83$) did not differ significantly from the scale midpoint, $t(23) = -0.61, p < .55$. These findings validate the descriptive ambiguity of the essay about Chris.

MAIN EXPERIMENT

Method

Participants

Sixty-six students participated in the experiment. Based on the first experimental session (see below), we classified 24 participants as independence-schematics, 19 as dependence-schematics, and 23 as aschematics.

Procedure

The procedure consisted of two experimental sessions. In the first session, participants completed a questionnaire (embedded in a battery of paper-and-pencil measures), whose main purpose was to assess participant schematicity on the trait dimension independence–dependence. Specifically, participants provided self-descriptiveness and importance ratings for both the target trait dimension “independence–dependence” and the control trait dimension “organized–disorganized.” Participants indicated on 11-point scales the self-descriptiveness of three synonyms of the trait independence (autonomous, independent, leader) and three synonyms of the trait dependence (submissive, dependent, follower). In addition, participants indicated the self-descriptiveness of three trait adjectives relevant to organization (orderly, organized, neat) and three trait adjectives relevant to disorganization (messy, disorganized, sloppy). The endpoints for all self-descriptiveness ratings were 1 (*does not describe me at all*) and 11 (*describes me very much*). Finally, also on 11-point scales, participants indicated the importance of possessing each of the same 12 traits. The endpoints were 1 (*not at all important to my self-definition*) and 11 (*very important to my self-definition*).

We defined as *independence-schematics* those individuals who averaged both a score of nine or higher on the independence trait adjectives and a score of three or lower on the dependence trait adjectives. We also ensured that independence-schematics assigned high importance scores to the independence trait adjectives. Ratings on the independence self-descriptiveness and corresponding importance composite scores correlated significantly, $r(66) = .63, p < .001$, and all composite importance ratings for independence-schematics averaged eight or higher. This procedure for identifying schematics is similar to that of previous research in this area (Catrambone & Markus, 1987; Fong & Markus, 1982; Markus et al., 1985). We used a more lenient criterion in identifying dependence-schematics, given that members of Western societies are rather averse to rating themselves as dependent (Heine, Lehman, Markus, & Kitayama, 1999; Markus & Kitayama, 1991). Thus, we defined as *dependence-schematics* those participants whose self-ratings on dependence trait adjectives were equal to or higher than their self-ratings on independence trait adjectives. We also ensured that dependence-schematics assigned relatively high importance scores to the dependence trait adjectives. Ratings on the dependence self-descriptiveness and corresponding importance composite scores correlated significantly, $r(66) = .62, p < .001$, and all composite importance ratings for dependence-schematics averaged five or higher. Only 5% of pretested participants fulfilled these criteria. Finally, we classified as *aschematics* those participants whose independence and dependence self-descriptions, as well as corresponding importance ratings, were intermediate between the other two groups.

Next, we telephoned and recruited participants from the three schematicity groups. We asked an equal number of randomly selected independence-schematics and aschematics to return. However, we asked all identified dependence-schematics to return, due to the shortage of such participants. Over 90% of recruited participants kept their second session appointments, which took place approximately 2 weeks after the first session.

In the second session, participants read the description of Chris with an impression formation goal. We matched participants and Chris on gender: Female participants read about a female Chris, whereas male participants read about a male Chris. After reading the story, participants read the four vignettes used by Catrambone and Markus (1987). The three self-schema relevant vignettes described choice dilemmas pertaining to the independence–dependence trait dimension: choosing to write an individual paper versus a group paper for a class, contesting versus paying a speeding ticket, and not allowing versus allowing a videotaped interview outside a supermarket to be used in a commercial. The control (i.e., non self-schema relevant) vignette was about allocating funds for the space program. Participants indicated the likelihood from 0 to 100% that Chris would choose a particular course of action (e.g., choose to write an individual paper rather than a group paper). Higher percentages corresponded to higher dependence ratings on the self-schema relevant vignettes.

Next, participants rated Chris on the 12 traits assessing independence, dependence, organization, and disorganization (i.e., the same 12 traits as those used in the first session). In order to minimize the possibility that participants would associate the first session self-ratings with the second session Chris-ratings, we switched to a 7-point rating scale for each trait and altered the font and the presentation format of the trait ratings. The endpoints were 1 (*does not describe Chris at all*) and 7 (*describes Chris very much*).

At the end of the session, participants answered two open-ended questions that probed their beliefs about the purpose of the experiment and any suspicion regarding the connection with the first session. Two participants recognized this connection, and their data were discarded from subsequent analyses. Finally, participants were fully debriefed and thanked for their contribution.

RESULTS

Schematicity Manipulation Check

We constructed independence composite scores ($\alpha = .67$) from the trait adjectives autonomous, independent, and leader. Further, we constructed dependence composite scores ($\alpha = .65$) from the trait adjectives submissive, dependent, and follower. Table I contains the self-description means and corresponding importance ratings for the three schematicity groups.

The schematicity main effect was significant for self-descriptiveness ratings on the independence composite score, $F(2, 63) = 139.57, p < .001$. Independence-schematics ($M = 9.88$) rated themselves higher (i.e., more independent) than as-schematics ($M = 7.88$), $t(63) = 8.76, p < .001$, who in turn rated themselves higher than dependence-schematics ($M = 5.87$), $t(63) = 8.26, p < .001$. Similarly, the schematicity main effect was significant for self-descriptiveness ratings on the dependence composite score, $F(2, 63) = 142.49, p < .001$. Dependence-schematics ($M = 7.21$) rated themselves higher (i.e., more dependent) than as-schematics

Table I. Self-Description and Importance Ratings (on Independence and Dependence) as a Function of Schematicity

	Schematicity		
	Independence-schematics	As-schematics	Dependence-schematics
Independence ratings			
Self-description	9.88	7.88	5.87
Importance	9.42	8.06	7.05
Dependence ratings			
Self-description	2.33	4.46	7.21
Importance	3.07	4.15	6.36

Note. Ratings were made on 11-point scales.

($M = 4.46$), $t(63) = 9.42$, $p < .001$, who in turn rated themselves higher than independence-schematics ($M = 2.33$), $t(63) = 7.76$, $p < .001$.

The importance ratings mirrored the self-descriptiveness ratings. Participants rated the importance of possessing the three independence synonyms ($\alpha = .44$) and the three dependence synonyms ($\alpha = .69$). The schematicity main effect for the independence importance composite score was significant, $F(2, 63) = 17.34$, $p < .001$. Independence-schematics ($M = 9.42$) rated the possession of independence trait terms as more important than aschematics ($M = 8.06$), $t(63) = 3.53$, $p < .001$, who in turn rated the possession of such terms as more important than dependence-schematics ($M = 7.05$), $t(63) = 2.44$, $p < .017$. Similarly, the schematicity main effect for the dependence importance composite score was significant, $F(2, 63) = 14.42$, $p < .001$. Dependence-schematics ($M = 6.36$) rated the possession of dependence trait terms as more important than aschematics ($M = 4.15$), $t(63) = 3.55$, $p < .001$, who in turn tended to rate the possession of such terms as more important than independence-schematics ($M = 3.07$), $t(63) = 1.83$, $p < .07$.

In summary, self-descriptions and the importance ascribed to them differed significantly across the three groups, supporting the classification of independence-schematic, aschematics, and dependence-schematics into three distinct categories.

Behavior Predictions

Participants read three vignettes related to the trait dimension of independence–dependence, and provided behavior predictions for the main character in the form of percentages from 0% (*not at all dependent*) to 100% (*extremely dependent*). We predicted that, relative to aschematics, independence-schematics would assign a low likelihood to Chris behaving in a dependent fashion, whereas dependence-schematics would assign a high likelihood to Chris behaving in a dependent fashion. In contrast, we predicted that likelihood ratings for the control vignette would not differ as a function of schematicity.

In line with prior practice (Catrambone & Markus, 1987), we averaged the behavior predictions regarding the three independence-related vignettes to form a composite score, which we entered in the analyses. Next, we conducted a 3 (schematicity: independence-schematics, aschematics, dependence-schematics) \times 2 (behavior prediction: schema-relevant vignettes, control vignette) mixed-design analysis of variance (ANOVA), treating behavior prediction as the repeated-measures factor. The critical Schematicity \times Behavior Prediction type interaction was significant, $F(2, 63) = 5.66$, $p < .006$. Therefore, we proceeded with separate analyses for the schema-relevant vignette composite and the control vignette score. For the schema-relevant vignette composite, the planned contrast testing a linear trend was significant, $F(1, 63) = 9.43$, $p < .003$. Independence-schematics rated Chris as least likely to behave in a dependent manner ($M = 43.33$), whereas

dependence-schematics rated Chris as most likely to behave in a dependent manner ($M = 57.44$), with aschematics making intermediate ratings ($M = 47.68$). Interestingly, and consistent with hypotheses, behavior predictions for the control vignette did not differ as a function of schematicity: The linear trend contrast was not significant, $F(1, 63) = 1.99, p < .16$. In summary, self-schemas had an assimilative effect on behavior predictions, and their effect was localized on schema-relevant trait dimensions.

Impression Ratings

Participants rated Chris on 12 trait adjectives, three each corresponding to independence, dependence, organization, and disorganization. We hypothesized that, compared to aschematics, independence-schematics would rate Chris as more independent, whereas dependence-schematics would rate Chris as less independent. We also hypothesized that ratings of Chris on organization and disorganization would not differ as a function of schematicity.

We averaged the synonymous trait adjectives to form composite scores for independence ($\alpha = .81$), dependence ($\alpha = .80$), organization ($\alpha = .81$), and disorganization ($\alpha = .88$). Next, we conducted a 3 (schematicity: independence-schematics, dependence-schematics, aschematics) \times 2 (trait type: self-schema relevant, control) \times 2 (trait polarity: independence/organization, dependence/disorganization) mixed-design ANOVA. Schematicity was a between-participants factor, whereas trait type and trait polarity were repeated-measures factors. Given that the triple interaction was marginal, $F(2, 63) = 2.76, p < .07$, we proceeded to examine the four trait-rating composites separately as a function of schematicity (Table II).

Consistent with the hypothesis, the linear trend contrast was significant for the independence trait composite, $F(1, 63) = 4.84, p < .031$. Independence-schematics rated Chris as more independent ($M = 4.97$), and dependence-schematics rated Chris as less independent ($M = 4.19$), relative to aschematics ($M = 4.69$). Analogously, the linear trend contrast was significant for the dependence trait composite, $F(1, 63) = 5.89, p < .018$. Independence-schematics rated Chris as less dependent ($M = 3.28$), followed by aschematics ($M = 3.57$) and

Table II. Trait Impressions of Chris as a Function of Schematicity

Trait Ratings	Schematicity		
	Independence-schematics	Aschematics	Dependence-schematics
Independent	4.97	4.69	4.19
Dependent	3.28	3.57	4.25
Organized	4.94	5.33	5.03
Disorganized	2.46	2.44	2.63

Note. Ratings were made on 7-point scales.

dependent schematics ($M = 4.25$). Also consistent with hypotheses, trait ratings of Chris on organization did not differ as a function of schematicity. The linear trend contrast for the organization composite was not significant, $F(1, 63) = 0.11$, $p < .75$. Similarly, the linear contrast for the disorganization composite was not significant, $F(1, 63) = 0.27$, $p < .60$. In summary, self-schemas had an assimilative effect on target impressions but only with respect to schema-relevant trait dimensions.

DISCUSSION

A pivotal contribution of the social cognition movement has been that self-schemas serve as lenses through which individuals view their social world. For example, empirical studies have elucidated the influence of self-schemas on attribution (e.g., the false consensus effect; Marks & Miller, 1987), judgments of self-other similarity (Srull & Gaelick, 1983), the encoding of other-referent information in memory (Symons & Johnson, 1997), and the organization of social information in memory (Kahan & Johnson, 1992).

Recently, however, it has become increasingly clear that these lenses serve motivational functions, most notably the stability and maintenance of the self-system. Self-schemas assimilate impressions of a target person in ways that will be least disruptive of their cognitive status quo. Self-schemas use target impressions for their own validation and continuity. In so doing, self-schemas provide a sense of control and predictability over the social environment. We referred to this function of self-schemas as the assimilation hypothesis.

Despite the plausibility of the assimilation hypothesis, relevant empirical research has yielded a rather inconclusive picture. Some experiments have reported a null effect of self-schemas on target impressions (Catrambone & Markus, 1987; Fong & Markus, 1982; Markus et al., 1985; Park & Hahn, 1988), whereas other experiments have obtained the expected assimilation effect (Carpenter, 1988; Riggs & Cantor, 1984; Sedikides & Skowronski, 1993). We attributed the mixed findings to target descriptive ambiguity, defined as the equally strong presence of schema-consistent and schema-inconsistent information. In the disconfirming research, the target was described either unambiguously or in a nonschema relevant way (i.e., the traits used to describe or rate the target were different from participants' self-schemas). Hence, self-schemas were rendered inactive or inapplicable. In contrast, in the confirming research, the target was described in an ambiguous manner. Self-schemas were activated and were applicable to the processing of target information.

On the basis of past theorizing and research (Sedikides & Skowronski, 1990, 1991a, 1991b), we expected to find support for the assimilation hypothesis when the target profile was ambiguous. We conducted an experiment to directly test this notion. We classified participants as independence-schematics, dependence-schematics, or aschematics. After reading through information about a target

named Chris and forming an impression of her, participants predicted how Chris would behave in both schema-relevant and control situations. Furthermore, participants rated Chris on both schema-relevant (i.e., independence synonyms) and control traits.

The assimilation hypothesis was supported. Behavioral predictions varied as a function of schematicity: Relative to aschematics, independence-schematics predicted that Chris would behave more independently, whereas dependence-schematics predicted that Chris would behave more dependently. Predictions regarding the control vignette did not differ as a function of schematicity. Similarly, trait ratings varied as a function of schematicity: Relative to aschematics, independence-schematics rated Chris as more independent, whereas dependence-schematics rated Chris as more dependent. Ratings for the control trait (i.e., organized) did not differ as a function of schematicity.

The results help to clarify previous inconsistencies in the literature. The influence of self-schemas on target impressions and behavior predictions is minimal when the target clearly manifests a particular personality characteristic (e.g., Einstein's intelligence, Mother Theresa's morality). However, the influence of self-schemas is pervasive when the target's personality characteristics are ambiguous (i.e., when the activated self-schemas are applicable to the target description).

Arguably, the influence of self-schemas on target impressions is limited. After all, how often is the social environment ambiguous? We maintain that ambiguity in the social milieu is the norm rather than the exception. Consider some anecdotal examples. Often, information about a target is heard from third parties. Such information is, almost certainly, incomplete. Consequently, the perceiver fills in information prior to actually meeting the target. The perceiver likely involves self-schemas when fleshing out this impression. To take another example, many relationships today are initiated and developed via the internet. Intimate relationships can develop without the two individuals actually seeing each other (McKenna & Bargh, 2000). Such instances also seem ripe for the perceiver to use self-schemas in further articulating an impression of the target.

Moving back to the empirical arena, the point that ambiguity is the norm in the social environment was made loud and clear approximately 50 years ago through the classic Hastorf and Cantril (1954) experiment and the Bruner (1951) review. This point has formed the basis for research on attribution theory and person perception. Indeed, there is inherent ambiguity even in such ostensibly clear phenomena as an aggressive act (Sagar & Schofield, 1980) or a test performance (Darley & Gross, 1983). There is plenty of inferential room for self-schemas to mold target impressions. We would go as far as to suggest that self-schemas shape person impressions even when target descriptions are relatively unambiguous: This effect likely will be obtained when self-schemas are rendered hyperaccessible (Higgins, 1996).

This special issue reflects the growing interest in how the self is involved in social perception. We have made the case that self-schemas play a powerful

assimilative role in the construction of an impression about another person. Our research adds to the evolving consensus that impression formation is a dynamic process which serves, to a substantial extent, egocentric and perceiver-enhancing motives (Beauregard & Dunning, 1998; Dunning, 1999; Dunning & Beauregard, 2000; Lewicki, 1983). Arguably, the impression formation process is more motivated by the self-system than was previously thought: The process consolidates, perpetuates, and validates the cognitive composition of the self-system.

APPENDIX

Chris graduated 4 years ago from a large mid-western university with a double major in business administration and history. Chris grew up in a suburb outside of Chicago, and now works for a large corporation based in downtown Chicago. One reason that Chris took the job in Chicago is that her family still lives outside Chicago. In fact, Chris still has dinner with her parents once a week. This arrangement is also handy because Chris can ask her father, a retired carpenter, to help fix the occasional problem in Chris' somewhat run-down apartment in the city.

Chris lives in that apartment with two friends from college. All three of them went to Europe during the summer after graduation, and had great fun backpacking through several countries. Chris is now trying to convince her friends to drive to California next summer, but they are reluctant to take so much time off of work. Chris has started thinking of taking the trip anyway and visiting some historical sites and national parks on the way.

In the evenings, Chris goes to a gym in her neighborhood about twice a week to work out. Occasionally, Chris has no problem catching a movie at the last minute by herself. She does not belong to a political party; her political opinions are not easily influenced by speeches or advertisements of either major party. Instead, Chris makes up her mind about voting based on the state of the economy.

Chris's boyfriend just received an excellent job offer from a company in New York City that he is seriously considering. He is trying to convince Chris to go to New York City with him. Though she hasn't decided yet, she is leaning towards following him east. She is devoted to her boyfriend, and calls him every night when she is traveling. However, Chris hasn't made up her mind yet. She has been calling several friends, as well as her brother and sister, asking for their advice on what she should do.

Chris just received a promotion at work. The work is pretty challenging; in fact, she has to constantly ask for advice from the person who used to have her position. Nevertheless, she is reluctant to quit so soon after this promotion. Chris has gotten some positive feedback for the job she's done so far, because she has proposed several innovations that have saved the company a lot of money.

Note: The description of Chris matched the participant on gender; the female version appears here.

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