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Schema-triggered Affect: Applications to Social Perception

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Since moving to Pittsburgh, I have encountered a new stereotype. It purportedly describes a "mill hunk," that is, the prototypic steel worker. A mill hunk, so the stereotype runs, can be male or female but is invariably macho and raunchy regardless of gender. A mill hunk always drinks Iron City beer, watches every Steeler game, and wears a t-shirt in all weather. Research in social cognition has had much to say about how such stereotypic information is represented and processed. For example, my mill-hunk stereotype is stored as an abstracted generic example, not as a collection of all the steelworkers I have ever known, although the stereotype does contain specific examples too. I am likely to ignore information irrelevant to the stereotype, so, for example, whether or not a particular mill hunk is athletic will not catch my attention. On the other hand, I will notice wildly discrepant information—a mill hunk who is also a Shakespeare scholar—and if allowed time to mull it over, I will recall the discrepant information. If I do not have time to elaborate on the information encountered, I will tend to recall only consistent information—a mill hunk who reads Hustler magazine. This research on social cognition and stereotyping is ably reviewed elsewhere (Hamilton, 1979; Hastie, 1981; Taylor & Crocker, 1981).¹

A reading of the social cognitive literature indicates that practically nowhere in such cognitive analysis of stereotyping is affect addressed. Yet affect is the very reason stereotypes matter. Pigeonholing a person to fit one's oversimplified beliefs is certainly an issue, but prejudice is another, more serious issue. Clearly, a cognitive analysis does not aim to address affect, by definition. But this chapter

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¹To avoid possible misunderstanding, note that the steelworker stereotype is only an example, a generally-held stereotype that I myself do not endorse.

argues that cognitive social analysis can and should address the processing of affect.

So far, social cognition has borrowed heavily from cognitive psychology for its theories and methods and, in so doing, implicitly has accepted its major goals and shared its major omissions, some of which are inappropriate to social settings (Fiske, 1981; Higgins, Kuiper, & Olson, 1981; Zajonc, 1980a). In social cognition the current strategy has been to push cognitive explanations as far as possible, to see where they illuminate new ground not clarified by previous approaches. Cognitive explanations are not new in social psychology (Allport, 1954; Heider, 1958; Smith, Bruner, & White, 1956), but this widespread enthusiasm for explanations in terms of cognitive process is recent (Taylor, 1981; Zajonc, 1980a). Further, the new cognitive approach uniquely emphasizes careful specification, measurement, and manipulation of the steps intervening between input and output, using new methodologies especially designed for the purpose (Taylor & Fiske, 1981). Hence, social cognitive research relies heavily on direct measures and manipulations of attention, information search, memory, and inference. In addition to new methods, new models are either borrowed from cognitive theory or developed specifically in a social context, but informed by advances in cognitive theory. In all this, social cognition implicitly or explicitly accepts the assumptions of cognitive psychology.

To explain the thinking processes of individual people in isolation—the main task of cognitive psychology—one need not consider interpersonal perception. But to understand expressly social phenomena virtually demands the consideration of affect, which considerably complicates the cognitive analysis. The implications of integrating affect into social cognition is the major focus of the research reported here.² To anticipate, our position is that the origins of both affective and cognitive reactions to other people together lie in the individual's accumulated prior experiences; interpersonal affect and cognition both depend on abstracted individual history.

An example illustrates the current approach. Imagine walking down the street and encountering someone who exactly resembles your high-school sweetheart. Instant affect can surface from such an encounter. Moreover, such experience-based affective reaction can occur prior to other "cold" knowledge that surrounds that person (e.g., that the person actually lives in another city, or that the sweetheart is now an ex, or that the person never would have worn a three-piece suit). The point is that one can react strongly to people, simply because they remind one of somebody or fit a prior configuration, but such a reliance on prior experience as cuing affect does not presuppose retrieval of all the facts. Such

ideas have arisen elsewhere as affective resonance (Tomkins, 1980), as Freudian transference or as stimulus generalization. Here, however, the focus is explicitly cognitive: We are concerned with how interpersonal affect and cognition each are processed and how they interface. In short, how might human information processors deal with affect? The position to be taken here is that they process affect the way they process anything else—efficiently, if not "accurately." When new information can be fit to old affectively laden knowledge, then the person has available an immediate affective response.

Nevertheless, sharing an origin need not imply that affective and cognitive responses must depend on each other, a point proposed by Zajonc (1980b) and that we develop shortly in an interpersonal context. In arguing for the distinctions between affect and cognition, Zajonc has proposed that they may be entirely separate systems. In contrast, the current hypothesis is that affect and cognition both are cued by matching stimuli to abstracted prior experiences, but that affect may be processed differently than more "cognitive" knowledge.

One might argue that affective reactions are just another cognition. The final word is not in yet, but, until then, it is presumptuous to equate them. First, affect has been treated *de facto* as a separate phenomenon. In cognitive psychology's neglect of it, the implicit assumption is that affect is distinct. Further, affect operates at a different level than cognitions do. The same affective dimensions (e.g., positive-negative) apply to many more stimuli than does any single cognitive dimension. Affect thus is at a higher level than most cognitions, because it is a common feature of so many stimuli. Finally, Zajonc (1980b) has presented evidence that affect is accessed quickly, almost at the level of perception and categorization, and earlier than other more "cognitive" knowledge. Thus, it seems unreasonable to assume them equivalent *a priori*.

Before proceeding, it is also important to clarify the distinction between evaluation and affect. The present research sometimes equates evaluation and affect, but that is conceptually a first approximation. Evaluations and preferences are simple valenced judgments. Affective reactions involve separate, sometimes uncorrelated, positive and negative dimensions (Abelson, Kinder, Peters, & Fiske, 1982; but see Russell, 1979, for an opposing view). Affect also implicates an arousal or activation dimension (e.g., anger versus depression; contentment versus delight; see Russell, 1978). Simple evaluation measures ignore both the possible independence of positive and negative dimensions and neglect the activation dimension as well. However, affect and evaluation are highly correlated, and in some laboratory settings unaroused evaluative judgments are the best one can obtain. It remains an empirical question whether the results generalize, and this research is a first step in that direction.

To give some perspective to the current model, it is helpful to present the currently available alternatives. Given these, the chapter next describes the model we believe to be operating. Then, the next section describes our program of research, which applies this model to close relationships, voting, and stereotyping.

²It is not true that social psychology as a whole has neglected cognition and affect. Some examples of social psychology's many forays into interpersonal cognition and affect are reviewed by Fiske (1981). It is true, however, that the subarea most suited to examining the processing of interpersonal affect has neglected thus far to do so. It is to this point that the chapter is addressed.

MODELS OF INTERPERSONAL AFFECT

The models implicit in much person perception research represent affective and evaluative reactions as piecemeal processes. In cognitive terminology, they are data-driven or bottom-up. In such a model, affective reactions are based on the information given. Bits of information, each with its own valence, accumulate independently. On demand, the valenced information is retrieved and summarized algebraically (either by summing or averaging). This *retrieval-based, piecemeal model* posits that affective judgments are made only when demanded, and it predicts that affect will depend on memory for the relevant data. For an illustration, consider evaluating a new next-door neighbor. This model presumes that one has only a neutral reaction until the need arises to evaluate the person. When an affective response is required, one first recalls the neighbor's various behaviors and attributes, representing, say, how noisy, friendly, neat, and gossipy the person seems. One abstracts out the evaluative component of each attribute, combines the evaluations, and produces a memory-based affective response that reflects all the available pieces. This model most clearly underlies the work of Fishbein (1967) and Norman Anderson (1981). For example, in one analysis of impression formation stated by Anderson (1981): "immediate judgment thus resulted from an integration of information stored in memory and recalled by the occasion [p. 365]."

However reasonable this might seem, the plausible idea that recall determines affective reactions has not been established. It has become clear that the affective impact and memorability of data are independent. For example, Dreben, Fiske, and Hastie (1979) found no correlation between an item's weight in evaluation and its probability of recall. Further, recall and evaluation yielded unrelated serial position curves and were differentially affected by various task manipulations. Several others (Anderson & Hubert, 1963; Fiske, Kenny, & Taylor, 1982; Love & Greenwald, 1978; Risky, 1979; for a review, see Fiske, 1981) also have obtained evidence for the independence of evaluations and recall. It seems possible that evaluation and memory are, in fact, rather independent systems. It is becoming increasingly implausible to believe that an efficient information processor would separately store each instance of raw data, retrieve the lot, and evaluate. Thus, the rather cumbersome retrieval-based piecemeal model seems untenable.

An alternative data-driven or piecemeal model does not rely on retrieval. In the *on-line piecemeal model*, evaluation is presumed to be a primary component of perception (Osgood, Suci, & Tannenbaum, 1957; Zajonc, 1980b). Perceivers assess each input "on-line," as it is received (Fiske, 1980). They assimilate each input's evaluation as it is encoded, add it into the cumulative summary, and retrieve that summary affective judgment upon demand. In this view, people gradually accumulate and modify an affective reaction, changing it with each new bit of data; each input separately contributes to the outcome, at the time it is

encoded. In our example, the new neighbor would constantly evoke affective responses from people in the neighborhood. Every behavior and every attribute would contribute to the running evaluation score, at the time that each feature was perceived. Affect, then, is constantly updated, and memory for the data is irrelevant, once the affective components are distilled and contributed to the running total or average. This model has been most clearly expressed again by Anderson (1981): "subsequent behavior provides additional information that is evaluated and integrated in the same way as the earlier information. In this view, the attitude is a dynamic entity, continuously modified by incoming information [p. 365]." This essentially analog, on-line model of affect suggests that affective impact is irrelevant to recall for the data on which the affect was based and is consistent with the findings reported earlier, that recall and evaluation are independent. Unfortunately, this model ignores the growing literature on complex information processing.

Both piecemeal models posit processes that do not consider the architecture and capacity of human cognition. Taken literally, such algebraic processes would strain the capacity of short-term memory. The sequence of events in an Andersonian version of the on-line model would include: retrieve initial evaluation, weight it, multiply them together, keep both the weight and the product in active memory, evaluate new information, weight it, multiply them together, keep both the weight and the product in active memory, add the two products, add the two weights, divide the products by the weights. Clearly, such mental gymnastics represent an unreasonable model of people's impression formation processes.

Even taken literally, the piecemeal models still presuppose considerable inefficiency if they do not allow for combining information into patterns that facilitate encoding, recognition, and retrieval; these are crucial features of human cognition. Anderson (1981) again is the most explicit and articulate representative of the piecemeal alternative. He addresses the issue of complex units by assigning both evaluation and weight at the level of "molar unitization"; that is, a complex stimulus, such as a familiar configuration of nonverbal cues, could be integrated as a single unit. This solution, however, merely passes the buck; the problem is transferred to evaluation at the level of the compound stimulus. It leaves open the question of how the individual components interact and how such a complex pattern itself elicits an evaluative or affective response. More generally, the piecemeal models do not tackle the issue of how people assign affective responses to individual features or combinations of features.

Most importantly, the piecemeal models do not address the possibility of category-based affective responses. The models implicitly assume that each stimulus is a unique new encounter, with affective reactions to be calculated afresh, ignoring prior experience with other instances of the same category. The models are usefully called piecemeal because they are feature oriented and do not easily admit to category-based perception and evaluation. Thus, in their strictest

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form, they ignore the clear implications of categorization and of inferences that go beyond the data given, instead positing an entirely data-driven affective response.

A schema-based model of affect could incorporate current assumptions about the structure and capacity of human perception and cognition. Considerable evidence has amassed to show that people draw on structured prior knowledge—known collectively as schemata—to facilitate information processing. Bartlett (1932) defined a schema as: "an active organization of past experiences, which must always be supposed to be operating in any well-adapted organic response [p. 201]." Schemata are generic knowledge structures, abstracted from experience with instances, and they contain richly interconnected information about the attributes of the most usual instance (see also Rumelhart & Ortony, 1977). Thus, the contents of the mill-hunk stereotype earlier described could be represented schematically as the set of interconnected expectations about the more crucial features of a typical instance. Roughly summarized, schema research shows that schemata aid memory for schema-consistent information (Hastie, 1981; Taylor & Crocker, 1981); increase confidence in schema-consistent recognition (Cantor & Mischel, 1979); enhance memory for schema-consistent information that was in fact never presented (Bower, Black, & Turner, 1979); and, further, guide inferences and predictions (Schank & Abelson, 1977). Schema-based social information processing has been amply demonstrated elsewhere, although empirical and conceptual ambiguities plague the area (Fiske & Linville, 1980). The bottom line is that, if one is explicit about one's process model, the concept usefully describes the simplified perception of new inputs that can be fit to abstracted prior experience.

Implicating schematic processes in interpersonal affective responses is a novel extension of the schema concept.² Simply put, affect is assumed to be stored with the generic knowledge structure. The affect is available immediately upon categorization, so evaluations and affect are cued by categorization, that is by fitting an instance to a schema. In this view, a perceiver first comprehends an input, by assimilating it to an existing knowledge structure, and then evaluates the instance on the basis of the affect linked to the schema. The model diverges critically from the piecemeal models in two respects. First, affect is stored at the top level of the schematic structure. Without access to all the category's features and their respective evaluations, affect is linked to the initial act of categorization. Second, the model explicitly recognizes that affect may generalize from

experience with prior instances to the category as a whole and thence back to new instances; that is, affective responses are often category based.

A crucial question remains behind: How is affect linked to the schema in the first place? Various processes likely operate in initial affective responses to individual stimuli. The first time a novel stimulus is encountered, its components may be evaluated and their evaluations combined, piecemeal fashion. Or, later, one may introspect on one's past behavior, abstracting over instances of one's behavior to infer one's evaluation of a particular stimulus (Bem, 1972). Or one may be conditioned to the individual stimulus, either classically or instrumentally. Whatever the process, the point is that the affect is ever after linked to the entire category, along with the relevant cognitive information. Neither cognitive nor affective associations are linked just to the originally encountered individual instance.

To return to the mill-hunk example, then, after I decide how I feel about individual steelworkers, by whatever process, I perceive and evaluate them as a category. The affect initially may be based on my own preference for Iron City beer, the Steelers, and t-shirts, but my response is not stored that way. Stereotypic or schema-based evaluation is a summary of many component evaluations, so it is an efficient affective processing device. Thus, when a stereotypic label is applied, it carries the implicit weight of its inferred or actual components. The affective impact of categorization derives from its being a proxy for quantities of other information; as an evaluative summary, it is more affectively informative than any individual item at a lower conceptual level. Of course, each attribute may carry its own affective implications and originally have combined to produce the summary affective reaction stored with the schema. Moreover, individual items of information, such as isolated attributes, may continue to have affective impact, as the cumulative impression is continually modified. The important point is that the affective reaction does not presuppose access to the schema's component attributes. Comparing this model further to the piecemeal approaches, then, schema-based affect combines both retrieval and on-line processes; that is, the affective reaction is retrieved from memory upon access to the schema, but the initial reaction and modifications of it are processed on line. The distinction between retrieval and on-line models evaporates in schematic processing.

RESEARCH ON SCHEMA-TRIGGERED AFFECT

The prediction unique to this model is simple: Schematic match determines affective responses. To the degree that an instance is perceived to fit the schema, it will receive the affect linked to that category. Otherwise, the instance receives moderate positive affect, by default, pending its possible categorization as a good example of something else. There is much evidence that the default evalua-

²Tesser's (1978) model of self-generated attitude change and Linville's (1982) model of schema-based evaluative extremity also presuppose that feelings are a function of the schema evoked. Nothing here disputes either Tesser's or Linville's model, but the emphases differ. Both their models are concerned specifically with the extremity of evaluative responses, Tesser as a function of time, Linville as a function of schema complexity. Neither of these factors are particularly relevant here.

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tion of other people is moderately positive, all other things being equal (Matlin & Stang, 1978). In a program of research designed to investigate the main hypothesis, we have explored schema-triggered affect in the initiation of close relationships, in forming impressions of politicians, and in campus stereotyping. No single study entirely proves the point. Together the message of these studies encourages the use of this approach, as we hope to show.

All three applications of the model have followed a roughly similar strategy. First, we explored the contents of the relevant person schema and discovered the affect linked to it. This preliminary stage usually involved gathering norms from the relevant population as to the consensual perceptions or stereotypes of a given category of people. The second step was to present subjects with stimulus people who varied in their degree of match to the schema. The matches among these should elicit schema-triggered affect, whereas the mismatches should not.

The Initiation of Close Relationships

In collaboration, Ann Beattie, Sandra Milberg, and I were interested in the old-flame phenomenon as an example of schema-triggered affect (Fiske, Beattie, & Milberg, 1981). It is a common observation about one's friends that they repeatedly get attracted to the same type of person. (Of course, it's never that way for oneself.) We hypothesized that people develop idiosyncratic schemata for their own particular kind of mate. Their category for the sort of person they are attracted to might include information about appearance, personality, interests, and the like. Certainly, such a (same)-old-flame category is affectively laden. Consequently, when one encounters a person who is a good match to the old-flame schema, the attendant affects are triggered, based on one's accumulated prior experiences. Further, the schema cues expectations and behaviors based on previous encounters. Thus, the old-flame schema, when triggered, becomes self-fulfilling. Of course, in this sense, it is one of a long line of such self-fulfilling stereotypes (see Darley & Fazio, 1980, for a review).

Our research strategy began with assessing the contents and affect linked to old flames among our subject population. First, we constructed a personality inventory consisting of traits our pretest subjects thought most relevant to close relationships. This "Princeton Personality Inventory" (PPI) consisted of 17 traits: fun, adventurous, honest, sensitive, strong willed, intelligent, trusting, athletic, commonsensical, polite, listens, romantic, respectful, sense of humor, trustworthy, understanding, and gentle. In addition to invoking old flames by personality profiles, we also presumed that most undergraduates would have patterns of attraction to certain physical types. For simplicity, we used women subjects and collected slides showing undergraduate men of varied appearance. Thus, the old-flame schema could be evoked along two dimensions: personality profile or photograph. It only remained to assess each individual's idiosyncratic

experience and tailor a stimulus person to fit her type of guy, in personality and appearance.⁴

To do this, we told undergraduate women subjects that we were studying their impressions of people they had known in the past, would meet in the present, and expected to meet in the future. To serve this first alleged purpose, the women completed the PPI for three well-known people: themselves, a same-sex best friend, and a past or current romantic partner. Then they engaged in the alleged second part of the study, forming impressions of people they were just meeting. This actually was a filler task that consisted of observing a bland videotaped getting-acquainted conversation between two male students, after which the subjects completed two more PPI's and some recall measures.

During the 30-minute filler task, the experimenter constructed each subject's tailor-made stimulus person from her own romantic-partner profile. Each subject's own ratings were reproduced on scales of a different format (continuous 120-mm lines instead of 7-point Likert scales) and in a different sequence of the 17 standard PPI traits. This enabled us to construct for each subject an unrecognizable copy of her own old-flame profile. No one expressed the slightest suspicion on this score during debriefing.

In addition, we ascertained each subject's old-flame physical type. Under the guise of the third part of the study (people they expected to meet in the future), we asserted that they would be paired with some male volunteers in a later part of the research. Because physical attractiveness has an impact on whether people get along, we said, it was important to know their own personal reactions to the male volunteers' appearance. We emphasized that we were not interested in consensual physical attractiveness (i.e., would he be suited to appear in a scotch ad), but in whether he was "the type of guy you have been attracted to in the past."

After collecting these "base-line" measures, the experimenter made a show of randomly assigning subjects to rate only one of the stimulus people. The women, in fact, received the photograph of someone they had rated either very high or very low as physically their "type of guy," and they received the personality profile either of someone they themselves had described as an old flame or of someone else's old flame. Subjects thus were randomly assigned to receive one of four levels of match to their own idiosyncratic old-flame schemata (personality match or not, combined with appearance match or not). Surprisingly, as noted, no one recognized this fact.

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⁴This assumed that our college-age subjects had all had romantic involvements already. This assumption did not appear problematic, at least to the extent that no one was willing to admit a problem in filling out the scale. Even if an undergraduate had never experienced a mutual romantic involvement, it is still likely that she would have experienced one-way involvements (crushes). The theory should hold equally well for unrequited attractions.

We hypothesized that subjects would react positively, given a total match, in which both personality and photo fit their own old-flame type.³ A total nonmatch should elicit little effect. The partial matches (appearance match or personality match but not both) were a puzzle. It was not clear a priori how subjects would react, but we did expect to elicit some affect from the partial matches, in contrast to the total nonmatches who should elicit essentially no affect.

One set of dependent measures asked subjects to predict how the stimulus person might make them feel, rating their own affective responses on 15 adjectives derived from Roseman's (1979) structural theory of emotion. The affects included six positive adjectives (liking, happy, proud, hopeful, relief, and sympathy) and nine negative (afraid, sad, regret, unease, angry, disgusted, frustrated, shame, and disliking). The raw affect ratings were averaged to yield a positive and a negative index.

As can be seen from Fig. 3.1, total matches on both appearance and personality elicited much positive affect and little negative affect, exactly as predicted. The partial match results also are rather intriguing. Partial matches elicited moderate positive affect—especially those who matched on appearance but not on personality. And partial matches elicited moderate negative affect as well. These people, who were "close but not quite right," elicited more fear, sadness, regret, unease, frustration, and the like than did the total matches. So they elicited ambivalence, in contrast to the clear positive affect triggered by the total matches. Finally, nonmatches elicited little affect of either kind.

The affect results should be especially interesting if they are echoed by behavioral choices; that is, if subjects act on their schema-triggered feelings, then the schema becomes self-fulfilling. To test this, we provided subjects with their choice of settings in which to meet with the male volunteers. As predicted, they most often chose to meet with the total matches in "an informal gathering some evening," the setting most conducive to romantic involvement. As for the partial matches, the women preferred to meet with them in a more task-oriented setting ("a work group in a laboratory setting"). Presumably, a task setting would be less involving than an explicitly social setting, but it would still allow them to seek additional information, thus resolving the ambiguities of the partial matches. Not surprisingly, subjects had little desire to meet with the nonmatches in either setting. The neutral setting showed no effects, as would be predicted.

This study's results are of primary importance when taken in contrast to alternative models. The piecemeal models do not easily explain configural re-

³This assumes that their associations to past romantic involvements are primarily positive. In this study, this seemed to be the case, because most subjects rated their past romantic partners at or above the scale midpoint on positive traits. In subsequent research (Fiske, Beattie, & Milberg, 1981), we have found that positive prior experiences cue positive affect and negative prior experiences cue negative affect.

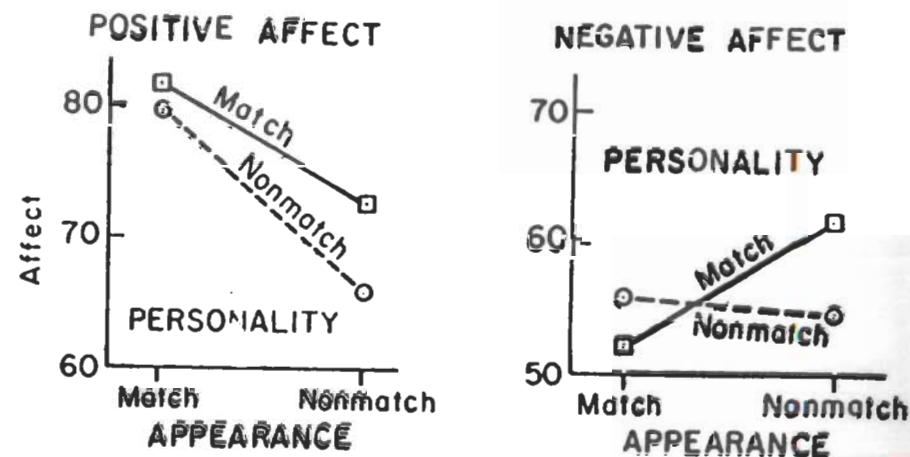


FIG. 3.1. Positive and negative affect as a function of personality and appearance match to old-flame schema (Fiske, Beattie, & Milberg, 1981).

sponses, that is, the interaction effects in which partial matches do not simply fall in between total matches and nonmatches.

The most straightforward explanation seems to be that when a new person is a good match to one's prior category, the person elicits the affects and actions linked to the schema. One alternative, however, does remain unassailed by these data. It is possible that subjects prefer anyone who is a good fit to their own prior knowledge and expectations. In this view, the affect is not evoked by affect

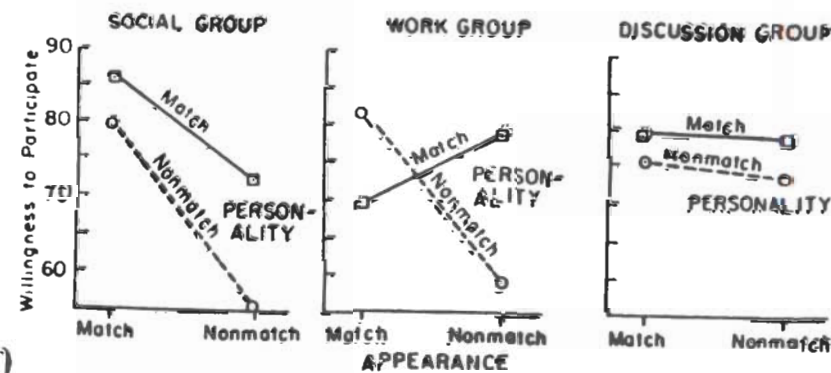


FIG. 3.2. Choice of interaction setting as a function of personality and appearance match to old-flame schema (Fiske, Beattie, & Milberg, 1981).

stored with the schema, but people simply favor familiar examples and dislike messy ambiguity. The next set of research addresses this issue and applies schema-triggered affect to a different interpersonal knowledge domain.

Forming Impressions of Politicians

In order to differentiate between schema-triggered affect and the hypothesis that poor fit (lack of familiarity) simply causes discomfort, one needs a negative schema. If good fit to a negative schema causes negative affect and poor fit causes positive affect, that constitutes evidence for schema-based affect and against the idea that ambiguity simply causes the discomfort. Consequently, some of our research needed to draw on a negative stereotype and assess reactions as a function of match to it.

The political domain turns out to be well-suited to this enterprise. There is a shared set of knowledge about politicians, and the stereotype is rather negative. Moving from idiosyncratic schemata (old flames) to consensual ones (politicians) brings us to mass person perception, in which everyone is forming impressions of the same stimulus people. Again, the research required two steps: assessment of the schema's content and affect, followed by presentation of targets who varied in degrees of schematic fit, to see if good fit uniquely triggers the affect associated with the category.

In the first step, then, we (Fiske, Milberg, Destefano, & Maffett, 1980) collected undergraduates' shared conceptions about the nature of politicians. These include assumptions about both personality and appearance. According to the average student, a typical politician:

smiles all the time, as if he's in a good mood even when he is not, so people never know when he means it. He tends to pose, being concerned with appearances and putting on a front. His colleagues describe him as warm and friendly.

His life revolves around his career. He is an average worker, does only what is expected, nothing more or less, and worries about keeping his job. He will do what other people want in order to maintain his position; he cares desperately about what people in general think of him. He is informed and often in the spotlight; he enjoys speaking in groups. He is vain and very ambitious, and basically concerned only for himself. He rather thinks he has all the answers.

He enjoys going out to social functions, mingling and greeting people; he is very outgoing. He dislikes arguing with people and he avoids controversy. His opinions are noncommittal and middle-of-the-road; he is often swayed by pressure. Almost all the time his actions appear above question. However, on occasion he has been known to be somewhat untrustworthy.⁶

⁶Interestingly enough, this personality stereotype about the abstract category of politician, which was obtained from undergraduates, is echoed by the general public's stereotype of the central traits shared by the actual forerunners for President (Kinder, Peters, Abelson, & Fiske, 1981).

Undergraduates' politician stereotype also contains information about the appearance of typical politicians. Accordingly, we were able to obtain several photographs that exemplified politicians and several that were discrepant with the politician stereotype.

Having identified the contents of the politician schema and knowing that it triggers negative affect (Fiske, Milberg, Destefano, & Maffett, 1980; Sears, 1976), the prediction of the schema-triggered model again is that a good fit will cue the affect linked to the schema, but this time that affect is negative. Lack of fit again should moderate reactions, but this time in a positive direction.

In this study, match to the politician schema was manipulated, first, by appearance. Subjects were given either a stereotypic politician photograph or an atypical politician photograph. Second, subjects were told that the target was either a politician, a business executive, or a person. All subjects were given the same personality description, which consisted of half politician attributes (as shown previously) and half nonpolitician attributes. Thus, the written materials were ambiguous and could be interpreted as consistent with the politician stereotype or not, depending on the label and photograph.

In addition to the manipulations of appearance match and label, the political realm necessitates a third independent variable. Previous work (Fiske & Kinder, 1981) indicates extreme variability in levels of prior knowledge about politics, and such variability importantly influences political cognition. In this context, if the label *politician* cued little stored knowledge about politicians, there may well be no effect of schematic match or nonmatch. Novices who do not possess the schema will not notice the lack of fit. Consequently, the effects are predicted to hold only for the relative political experts among our undergraduates. Using a scale of political expertise and involvement developed in another context (Fiske & Kinder, 1981), we divided the subjects into relative experts and novices.

As predicted by a schematic model, novices do not show the effects of complex prior knowledge on affective reactions.⁷ For the novices, the *label* politician was simply always a liability, regardless of appearance. In contrast, the *appearance* of a politician elicited positive affect among the novices, regardless of label (see Fig. 3.3). The two independent effects of appearance and label do combine to produce an affective response, but they do not exhibit the configurational effects of schematic good or poor match.

The experts, on the other hand, do show schematic processing. Given the labels *executive* or *person*, the political or nonpolitical appearance of the photograph makes little difference, because they are irrelevant. However, once the relevant schema is cued by the label *politician*, an appearance that matches the

⁷Affect and evaluation measures were combined into a single index in this particular study, to simplify reporting. All the negative affects were subtracted from all the positive affects to form an overall affect scale. The evaluation measure was then combined with this scale to yield the summary index. Results do not differ crucially if reported separately.

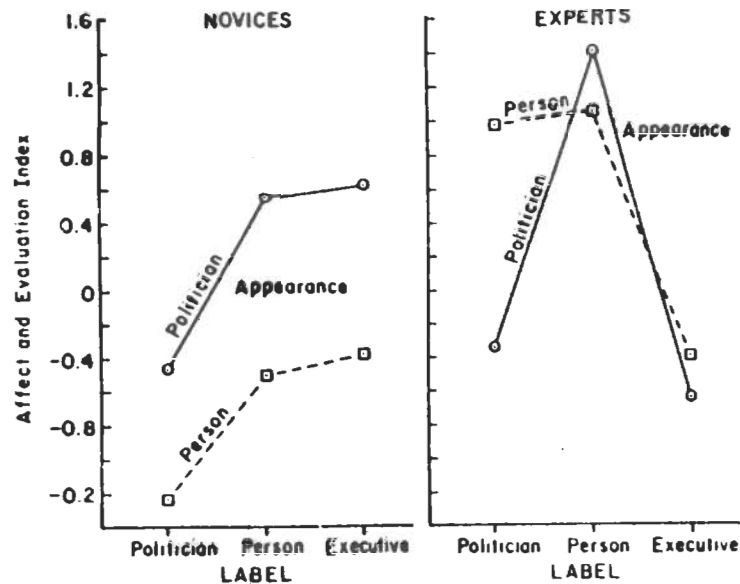


FIG. 3.3. Affect and evaluation as a function of appearance and label match to politician stereotype (Fiske, Milberg, Desefano, & Maffett, 1980).

stereotype costs its possessor considerable damage. A politician who looks like one is not at all favored by those who know about politicians. However, if his appearance is a poor match to the negative politician schema, he does not elicit the schema-based affect. In sum, then, schematic match cues the associated affect for those who possess the relevant schema.

One possible criticism of these results is that they are limited in generality and pertain only to hypothetical politicians. Perhaps, given the complexities of reacting to actual political candidates, the politician schema would have little impact. Politician image makers certainly would profit from knowing the generality of this effect, and we also were curious. Consequently, around the time of the first 1980 primaries, we conducted an experiment using as stimuli the actual front-runners for President. At the time, they were the incumbent (Carter), two Republicans (Reagan and Bush), and two Democrats (Kennedy and Brown).

Again, the research required setting up degrees of schematic match. How to do this was another problem. Clearly, we could not label the Presidential front-runners as anything other than politicians, nor could we change their appearance. So we manipulated their perceived fit to the politician schema along personality dimensions. The politician description generated earlier was presented as an intimate portrait of the candidate, written by a reporter who had shared the

campaign trail with him. A third of the subjects received the politician description attributed to one of the five front-runners. The remaining two thirds received one of two control descriptions. One was exactly opposite to the politician description (extremely competent, not at all ambitious, very introverted, scrupulously honest); this "antipolitician" was rather a saint, extreme and peculiar. Consequently, another control was created by asking subjects where the "ordinary person" falls on each of the relevant attributes (i.e., moderately competent, somewhat ambitious, relatively extroverted, usually honest). That description turned out a nebish, a rather nondescript character. Thus, each of the five front-runners was rotated through each of the three personality portraits: politician, antipolitician (saint), and ordinary person (nebish). Each subject received only one description of only one candidate.

Subjects again were undergraduates, and their affective reactions were assessed by the standard adjective list. The affect results showed the predicted disadvantage to prototypic politicians; they consistently elicited less positive affect and more negative affect than did the nonpoliticians (see Fig. 3.4). This result is particularly striking when one considers that it held for such well-known national candidates.

Of equal or greater interest is that the personality descriptions influenced actual vote intentions. None of the respondents were much interested in voting for the candidates described as stereotypic politicians. Democratic voters preferred the rather unrealistic, saintly antipolitician, whereas Republican voters

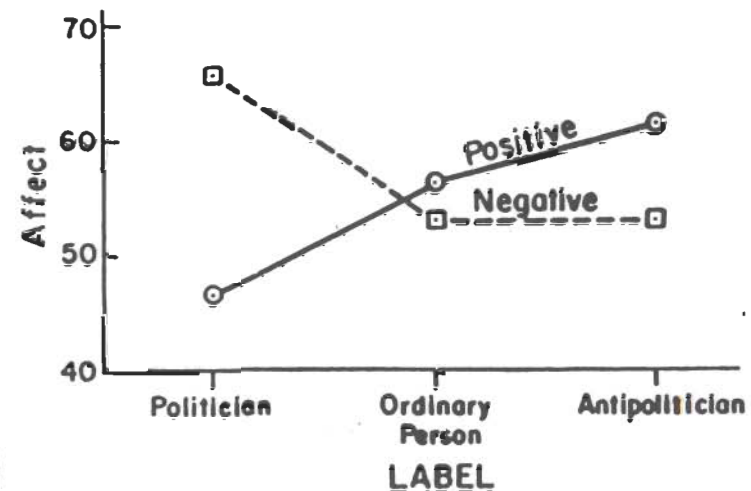


FIG. 3.4. Affect as a function of politician stereotype (Fiske, Milberg, Desefano, & Maffett, 1980).

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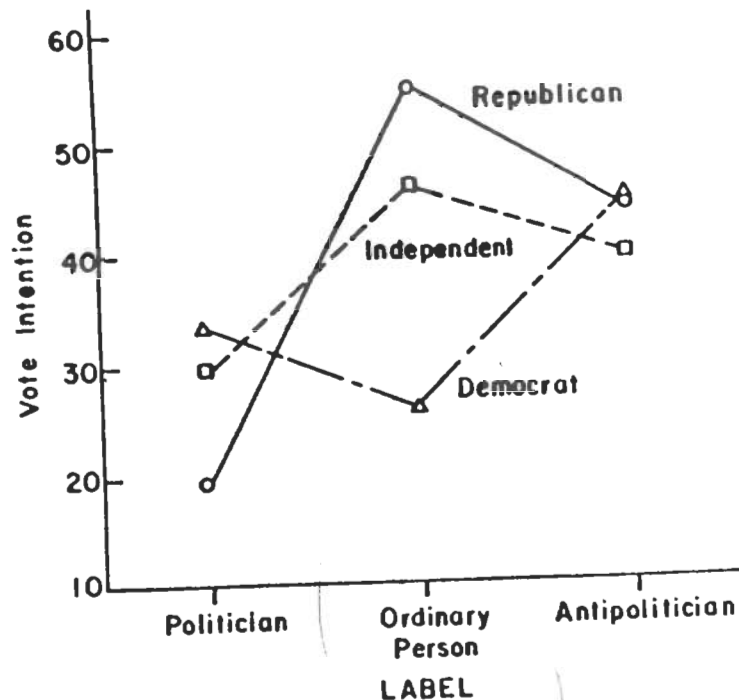


FIG. 3.5. Vote intention as a function of politician stereotype (Fiske, Milberg, Desmetano, & Maffett, 1980).

preferred the "ordinary person," who was nondescript to the point of being a nonentity. Independents fell between the Republicans and Democrats (see Fig. 3.5). Of course, in addition, voter and candidate party combined to predict party-loyalty voting, but the description effects were of an almost comparable magnitude. Even the incumbent Carter was not immune to the detrimental effects of the politician stereotype.

To sum up the political research, then, the consensual politician schema contains richly interconnected information about the appearance and personality of typical politicians. When a hypothetical or actual politician is described as a good or a poor instance of the negatively tinged schema, his reputation suffers or improves accordingly.

Campus Stereotypes

Both previous sets of research argue for the schematic-match hypothesis on the grounds that degree of fit to an affectively laden schema determines whether the

instance receives the affect linked to the schema. Both argue that the entire configuration's degree of fit determines affective responses. Thus, individual items do not combine additively but instead interactively. For example, if both appearance and personality fit one's category for an old flame or a politician, then schema-triggered affect, either positive or negative, results. If the fit is partial, affect moderates toward neutral or slightly positive.

A stricter test of the configural effects of schematic processing requires a different approach than that of the first sets of research. This involves the preliminary scaling of individual components to allow a more pointed differentiation between a piecemeal and a schematic account. The critical design must hold constant the evaluations of the component pieces of information, and it must vary only the consistency or inconsistency of their configuration. If the overall reaction changes as a function of the combination, in ways predicted by schematic fit, then the piecemeal model is weakened.⁸ The next study did precisely that. Moderately negative campus stereotypes were combined with moderately positive behaviors, each of which was consistent or inconsistent with the stereotype. By holding component evaluations constant and varying only the consistency of the combination, the study constitutes a strong test of the schematic hypothesis.

As before, the study began by assessing the contents and affect linked to the target schemata. We (Fiske & Gup, 1980) found four campus stereotypes that fit our design specifications, as is clear shortly. At Carnegie-Mellon, there are two pairs of interlocking, mutually exclusive student stereotypes. The first pair of consensual stereotypes is artist and engineer (familiarly known as "fr-n-ts" and "vegetables"). Behaviors consistent with the artist stereotype (such as smoking marijuana, or perching in a tree to play the flute) are discrepant with the engineer stereotype. The reverse is also true: Engineers allegedly "nurd out" all night in the computer room ("vegetable garden") and wear dull, dated, mismatched clothes, whereas an artist allegedly never would. For generality, we used a second pair of mutually exclusive stereotypes; these were homosexual (gay) student and member of the Reserve Officers Training Corp (ROTC). The ROTC group stereotypically is involved in traditionally male pursuits (football and women), whereas the gay group stereotypically is involved in nontraditionally male pursuits (cooking and flower arranging). Upon collecting norms from undergraduates, then, two pairs of mutually exclusive negative stereotypes and attendant neutral behaviors were identified.

⁸This distinction sounds dangerously like the controversy in person perception, starting with Asch (1946), in which meaning change (Zanna & Hamilton, 1977) and averaging (Anderson, 1974) were pitted against each other. Meaning-change advocates argued that halo effects resulted from a semantic or evaluative change in the meaning of peripheral traits caused by the overall configuration of traits. The algebraic approach argued that such effects can be explained by changing the relative weights of the component attributes. This issue was declared unresolvable (Ostrom, 1977). The point here is different, however. Here, neither the evaluative nor the semantic meaning of individual attributes is argued to change. Nor is it predicted that an averaging model will easily explain the data, as is seen.

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TABLE 3.1
Stimulus Photographs^a

Pair ^b	Label Slide	Behavior 1	Behavior 2
1.	<i>Engineer.</i> Target wears blue t-shirt: "Carnegie Tech civil engineers give a dam!"	<i>Nurd.</i> Target wears short, out-of-fashion pants; carries calculator and glasses; shirt is short-sleeve, button-down, too big.	<i>Terminal.</i> Target working at computer terminal; school books littered about.
	<i>Artist.</i> Target sits with paint box and portfolio case.	<i>Flute.</i> Target stands in tree playing recorder.	<i>Joint.</i> Target sits on a couch, lighting a hard-rolled marijuana cigarette.
2.	<i>ROTC.</i> Target wears green fatigues.	<i>Date.</i> Target dressed up, helps woman on with her coat.	<i>Football.</i> Target stands outside, posed to throw football.
	<i>Gay.</i> Target wears black t-shirt with silver letters: "Gay Rights Now."	<i>Wok.</i> Target is in plant-filled, well-equipped kitchen, cooks with a Chinese wok.	<i>Flowers.</i> Target sits at a dining-room table arranging straw flowers in a glass vase.

^aEach stimulus person always was presented first in a plain face photo not described here.

^bEach pair of stereotypes is interlocking; that is, behavior consistent with one stereotype is discrepant behavior for the other stereotype within the pair. This unconfounds the discrepant/consistent manipulation from slide content.

The design, then, was simple. Stimulus materials were slides showing each of the eight behaviors described earlier (two consistent behaviors per stereotype). The stereotypes also were presented photographically. For example, the engineer wore a pale blue t-shirt that said "Carnegie Tech civil engineers give a dam," and the gay student wore a silver on black t-shirt that said "Gay Rights Now." Given four stereotype slides and eight behaviors, each subject could then see two consistent and two inconsistent stimulus people. (Table 3.1 describes the stimuli and the matching process.) In addition, the stereotype slides were presented either before or after their matched behavior pair. Because this order manipulation had no impact, it is not discussed further.

Subjects' evaluations of the stimulus people were assessed on a scale of "general likability."⁹ As before, the prediction was that good match to the negative stereotype would cue negative affect, whereas poor match would not.

⁹This study was conducted before we began using the more sensitive, continuous measures of affect noted elsewhere in this chapter. Results were nonsignificant on a quick and dirty affect checklist we were using at the time. Consequently, this study's reported results used a bipolar evaluation measure of general likability, which should be highly correlated, although not identical, with affect.

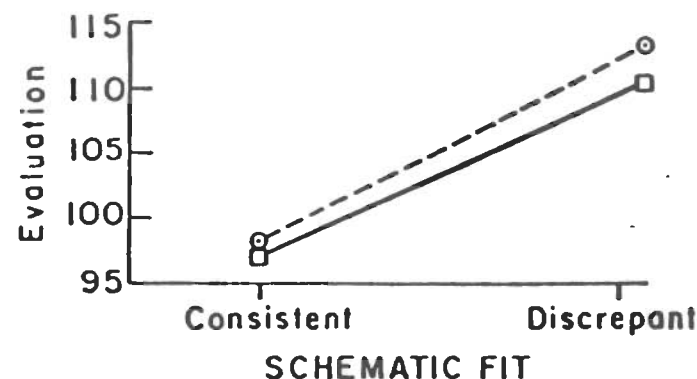


FIG. 3.6. Evaluation fit between stereotype and behavior (Fiske & Gup, 1980). Upper line represents stereotype-behavior presentation sequence; lower line represents the reverse sequence.

even holding constant the component evaluations. As Fig. 3.6 shows, schema-consistent targets in fact were liked less than schema-discrepant targets, given negative schemata and moderate behaviors. The crucial point bears repeating: The evaluations of the components were held constant; it was the schematic fit of the ensemble that triggered the evaluative response.

SUMMARY AND CONCLUSIONS

A schema-triggered model of interpersonal affect makes several claims about our perceptions of others. First, other people are represented as instances of categories. There are consensual categories at the cultural level, as in the generic politician stereotype. Understanding the likes of Reagan, Carter, and Kennedy comes in part from shared prior knowledge about the personality and appearance typical of our nation's politicians. There are also consensual categories at the subculture level. Campus stereotypes include knowledge about the behavior to be expected of preppies and hippies, engineers and artists, gays and ROTC recruits. Finally, there are idiosyncratic categories, as in the old-flame schema. This includes, again, expectations about personality and appearance consistent with one's past experiences. At each level, the term schema captures the process of matching new information to old, of fitting an instance to an abstraction. Alternative terms, such as stereotype, do not explicitly evoke the matching process.

The model makes a second claim: Affect is linked to categorization. Given good fit to the schema, the instance elicits the schema's affect. Good examples of politicians and nuds trigger negative affect, whereas good examples of old

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flames trigger positive affect. Partial matches—in which the schema has been evoked but the fit is poor—trigger moderated affect, an ambivalent combination of positive and negative. Thus, both moderate positive and moderate negative affect are directed toward potential dates who have the "right" personality or the "right" looks but not both. And, in another realm, politicians who do not look or act like typical politicians are given benefit of the doubt and a moderately positive evaluation. Finally, engineering nerds who act atypically spontaneous and creative are preferred to those who simply work hard, as would be expected. All the partial matches elicit moderated affect compared to the total matches. Further, nonmatches elicit little affect of any sort. The ordinary person evokes little reaction unless a specific schema has been triggered.

The model ventures a third claim, namely that affectively triggered schemata are guides to action. In the case of prototypic politicians, one votes against them. In the case of prototypic old flames, one seeks them out in a social rather than task-oriented setting. Other research indicates similar category-based behaviors: People seek information that will support their expectations (Berscheid, Graziano, Monson, & Dermer, 1976; Snyder & Cantor, 1979), treat people according to those expectations, and elicit the expected reciprocal responses (Snyder, Tanke, & Berscheid, 1977; Word, Zanna, & Cooper, 1974). Such self-fulfilling prophecies are particularly important when affectively tinged expectations are repeatedly confirmed and hence persevere. Clinicians, for example, devote lifetimes to uncovering and changing their clients' more destructive self-fulfilling expectations.

In sum, then, interpersonal schemata are usefully viewed as a network of knowledge, affect, and plans that are richly interconnected. In arguing this point of view, we must keep sight of the alternatives: piecemeal approaches in particular. Several results reported here weaken such attribute-oriented analyses. First, in the old-flame study, partial matches elicited an ambivalence not easily explained by the combined valence of the individual components; that is, the positive affect does roughly fit a piecemeal approach: Two positive attributes elicit extremely favorable reactions, a positive plus a neutral attribute elicits moderately positive reactions, and two neutrals elicit little reaction. In particular, however, negative affect does not follow a piecemeal model: that model would predict the reverse ordering for negative affects, which result does not occur. Instead, two positive attributes and two neutral attributes both elicit low negativity. One positive and one neutral elicit increased negativity. It is difficult to imagine how algebraic combinations, however weighted, would account for this pattern.

A second test of results that discredits the piecemeal perspective is in the final study reported. That study was explicitly designed to hold component evaluations constant, while manipulating only their schematic consistency or discrepancy. An algebraic model that manipulates relative weight as a function of the combination could assign lowered weight to part of the discrepant information and thus mimic the obtained results. But such an interpretation has an ad hoc quality, because it is unclear before the fact which component will be discredited

and which heavily weighted. Further, as soon as an algebraic model begins to adjust for the configuration of components, it admits that some sort of complex prior knowledge shapes such relative weighting. Schematic models label and explain such expectations.

Finally, and most conceptually important, the piecemeal models do not attempt to be cognitively reasonable. They do not explain how people might actually process component evaluations into a summary reaction. Although such algebraic gymnastics might conceivably operate for combining, say, just two components into an overall attitude, it has yet to be explained how people would manage to process complex, piecemeal, evaluative information. Quite possibly, later efforts will elucidate plausible internal processes, but at present, the piecemeal models are simply outcome oriented and ignore cognitive mechanisms.

This latter lack undercuts explanations in the stimulus-generalization terms of learning theories. While reinforcement models of attraction (Clore & Byrne, 1974; Lott & Lott, 1974) and of attitudes (Staats & Staats, 1957) have gathered much support, they deal mainly with the case of consistent instances (i.e., liking someone who is rewarding) or presume all instances identical to the original. They are mute on the mechanisms of generalizing over varied instances to categories and vice versa. Nor do social conditioning models address the issue of partial matches. Instead, attitude objects are assumed to fit or not fit broader categories. A schematic approach explicitly lends itself to analyzing ambiguous and partial fits.

We can speculate about the origins of affectively laden schemata, and even less is known about how knowledge structures change through exposure to exceptions and inconsistencies. Various applied literatures offer strong bets, for example, about how to change stereotypes through contact with outgroups or how to alter maladaptive patterns through clinical intervention. If the social schema literature is going to come out of its cognitive ivory tower, it will profit much from such consultations.

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