Cognitive Process:

Reality Constraints and Integrity Concerns in Social Perception

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Recent reviews and textbooks celebrate the ubiquitous implications of cognitive processes in the formation, use, and modification of stereotypes. Gordon Allport was in many ways the source of this “monomania” since he first drew scholars’ attention to the role of cognition in stereotypes, prejudice, and discrimination. Interestingly, Allport suggested that not only twisted and sick minds rely on unwarranted generalizations. Rather, he emphasized the normality of people’s faulty perceptions of social groups. In so doing, he claimed the study of prejudice and stereotyping as part of mainstream social psychology. Importantly, although Allport is known to have anticipated much of the later work on cognitive processes, he also emphasized the influence of motivational concerns in social perception. Over the years, it has become increasingly clear that motivational concerns must be fully integrated with cognitively-tuned approaches to stereotyping and prejudice. The field is only now achieving this kind of integration.

In the present chapter, we first provide a brief overview of the main ideas developed in Allport’s chapter 10, The Cognitive Process. As will become clear, cognitive limitations and partisanship are the recurrent themes of this founding text. In a second section, we discuss the most significant subsequent advances in understanding the process of categorization and stereotyping. In the third section, we emphasize the role of motivation in stereotyping and illustrate how current research provides evidence for the interplay of cognitive and motivational factors in the use of stereotypes. We conclude by suggesting promising avenues for future research.

Allport’s Views on the Cognitive Process… and Motivated Cognition

In the opening section of his chapter, The Cognitive Process, Allport emphasized the idea, also developed by the New Look movement (Bruner, 1957), that perceivers are active witnesses of their environment. Perception is as much affected by the perceiver, “the light within” as Allport called it, as by the object of perception, “the light without” (1954/1979, p.

165). Allport stressed the role of meaning construction in social perceptions as well, noting that both cognitive and motivational factors determine people's interpretation of the social environment. After Allport, cognitively-oriented social psychologists long concentrated on the former aspects and compared people's cognitive performance to so-called objective accounts of the surrounding world (Hamilton & Trolier, 1986). More recently, the role of motivation in social judgment has very much been rediscovered. Nowadays, most students of stereotyping and prejudice would agree that *reality constraints* (i.e., the light without) and *motivational concerns* (i.e., the light within) both shape social judgment (Leyens, Yzerbyt & Schadron, 1992, 1994).

As a matter of fact, several propositions in Allport's chapter are quite cognitive in tone and can be seen as prefiguring later social cognition work (see Fiske, this volume). First, he proposed that categories and categorization are tools that not only help people to deal with the complexity of the environment but also guide their thoughts and actions. Second, Allport discussed the structural aspects of categories, such as the appropriate features thought to define a category (similarity and association) and the hierarchical relations among categories (subordinate and super-ordinate). A central idea regarding the internal characteristics of categories is that people sometimes hold "monopolistic" categories in which all category members are thought to be interchangeable. It is in this sense that people's reliance on categories is supposedly based on the "principle of least effort": in order to reduce at low cost the uncertainty of their social environment, perceivers treat all members of a social group as being alike. A final section linked cognitive processes to dispositional factors, a theme that still is at the heart of many contemporary efforts in the field (see Duckitt, this volume).

In addition to the emphasis on cognition, several portions of the chapter alluded to the influence of vested interests on social impressions and judgments. One section dealt with the consequences of people's attachment to pre-existing knowledge. It is in this context that Allport discussed the role of "selection, accentuation, and interpretation" as providing a way to keep mental categories largely intact. Specifically, people rely on categorical thinking not only to overcome the limitation of their attentional capacities, but also to avoid repeated modifications of their views about others. Perhaps most illustrative of the intrusion of motivational concerns in people's thinking is what Allport called "autistic" thinking. In contrast to rational, so-called "directed" thinking, perceivers often reason in self-serving terms. "There is nothing passive about thinking", Allport noted (1954/1979, p. 167). The rationalization process that accompanies autistic thinking crystallizes around some form of simple human agency (e.g., blaming a scapegoat for one's problems), and neglects complex situational factors that may enter the picture (see Glick, this volume).

Again, whereas researchers' curiosity initially concerned the cognitive processes responsible for perceivers' *partial* appraisal of their social environement, the latest research efforts also aimed at better understanding the motivational factors that contribute to people's *partisan* view of the social world. To the extent that Allport considered the interplay of cognition and motivation to be the hallmark of social perception, the more balanced view advocated in contemporary work comes across as a tribute to the perspective he already championed half a century ago.

Developments Since Allport: What Have We Learned

One of Allport's most provocative and inspiring ideas was that stereotyping is grounded in a basic, unavoidable, categorization process. People are not capable of thought in the absence of concepts. New experiences remain meaningless unless they are incorporated into pre-existing categories. Open-mindedness, Allport noted, "is considered to be a virtue. But strictly speaking, it cannot occur. A new experience must be redacted into old categories." (1954/1979, p. 20).

Categorical Thinking: The Cognitive Side of the Coin

Categorization is a prerequisite for human thinking for it gives meaning to new experiences. It also facilitates learning and guides people's adjustments to the social world. By abstracting sensory inputs, categorization allows individuals to quickly interpret, and react to, their environment. The act of categorization however deprives people from perceiving some aspects of the world: stimuli can be assimilated to the category only if their peculiarities are overlooked. Here resides the dual nature of categorization: “Categorical thinking is a natural and inevitable tendency of the human mind” and “has property of guiding daily adjustments” (Allport, 1954/1979, pp.170-171), but it also impoverishes experiences and leads to a host of perceptual, judgmental, and memory biases.

One famous piece of evidence for the biasing impact of categorization on perception comes from a study by Tajfel and Wilkes (1963). Like Allport, Tajfel and Wilkes conceived categorization (and stereotyping) to result in the overestimation of inter-group differences and intra-group resemblances. Participants estimated the length of a series of lines that varied from each other by regular increments. When shorter lines (As) were systematically given a different label than longer lines (Bs), participants overestimated the differences between the categories. This basic categorization effect applies to estimates about attitudes, traits, or even physical values (e.g., Krueger & Clement, 1994) and points to the biasing influence of categorization. However, it seems most pronounced when the judgment is uncertain, such as when participants communicate their estimates in an unfamiliar measurement unit (Corneille, Klein, Lambert, & Judd, 2002). This is consistent with Allport’s view that the “whole purpose (of categories) seems to be to facilitate perception and conduct – in other words, to make our adjustment to life speedy, smooth, and consistent.” (1954/1979, p.21).

Whereas Tajfel and Wilkes provided evidence that categorization leads perceivers to overestimate the difference between groups, later work confirmed that categorization also reduces the perceived variability within categories. For instance, stimuli belonging to the same category are more perceptually confusable than are cross-category stimuli (Harnad, 1987). This effect is consistent with Allport’s claim that “categories assimilate as much old and new experience as possible to themselves” (1954/1979, p. 170). Beyond the implications of categorization for perception and judgment, Allport also noted that the categorization process implies a comparison between an old and an incoming representation. Categorization therefore involves a memory component. A straightforward illustration of the biasing impact of categorization on memory can be found in the “who-said-what” paradigm: people are more likely to misremember face-statement associations within than between groups (e.g., Taylor, Fiske, Etcoff, & Ruderman, 1978). For instance, individuals are more likely to misattribute a statement by a female speaker to another female than to another male speaker. More recently, categorization has also been shown to bias people’s visual memory. Faces that are moderately typical of an Asian person will be misremembered as being more Asian-like than they are (Corneille, Huart, Bécquart & Brédart, 2004). Research in social cognition has demonstrated a growing interest in how categorical thinking moderates basic memory processes.

Categorization is aimed at reducing uncertainties, but uncertainty reduction comes at the cost of increased inaccuracy in perceptions, judgments, and memories. As Allport acknowledged, inaccuracy is difficult to estimate in the context of social judgments: “nature does not tell us which (categorical) attributes are defining, which merely probable, and which totally fallacious.” (1954/1979, p. 172; see Judd & Park, this volume, for a discussion of stereotype accuracy). Allport further suggested that as pragmatic perceivers, people choose when to make this trade-off. He noted “While most of us have learned to be critical and open-minded in *certain* regions of experience we obey the law of least effort in others. A doctor will not be swiped by folk generalizations concerning arthritis, snake bite, or the efficacy of aspirin. But he may be content with overgeneralizations concerning politics, social insurances, or Mexicans… Life is just too short to have differentiated concepts about everything. A *few* pathways are enough for us to walk in.” (p. 173).

Because, by definition, people are experts in different and limited domains, a logical consequence of Allport's view is that most social concepts are under-differentiated. Accordingly, Allport noted that**: "**One consequence of least effort in group categorizing is that a *belief in essence* develops*."* (1954/1979, p. 173-174). This subjective essentialism argument, i.e., the view that people tend to overestimate the homogeneity, consistency, and durability of social categories, has become a lively topic of research in recent intergroup relations work (for a collection, see Yzerbyt, Judd, & Corneille, 2004).

The idea of differentiated thinking and expertise is also at the heart of the numerous efforts on the contact hypothesis (Pettigrew & Tropp, 1998, this volume; Kenworthy, Hewstone, Turner, & Voci, this volume) and of abundant research on stereotype change (Hewstone, 1994). According to Allport, perceivers avoid simplifications when given a chance to acquire rich sets of information. That is, "the more they know about a group the *less* likely they are to form monopolistic categories" (Allport, 1954/1979, p. 172, emphasis original). The belief that people stay away from inflexible categories if they become acquainted with members of a stigmatized group is of course very optimistic. As anticipated by Allport, research has shown that a series of stringent conditions need to be met in order to change people's views about social groups. Clearly, one has to do more than provide information about members of a stigmatized group when attempting to change people's representations about this group (Gaertner & Dovidio, 2000), if only because perceivers are biased in their incorporation of group-attribute covariations (Hamilton & Gifford, 1976; but see McGarty, 2002).

In the early 1980s, researchers examined in more detail the cognitive factors that may be responsible for the inertia of stereotypes. The first paradigm to be used asked whether perceivers would disregard their faulty generalizations more or less as a function of the magnitude and distribution of counter-stereotypical information about group members (Hewstone, 1994). As many studies revealed, people's reactions are best described in terms of the so-called "subtyping strategy" according to which people resist changing their stereotypes if they can group inconsistencies together in a few individuals. This strategy elaborates on Allport's notion that exceptional individuals are "fenced off" as not being like the rest of the group. This "structural" paradigm inspired a closer examination of the way perceivers approach information about groups. Do they favor a consideration of various subgroups within a larger group, a strategy commonly encountered when people's own group is at stake, or do they subtype the "deviants" so as to oppose a majority of stereotypic group members (all students) to a limited number of exceptions to the rule (Park, Wolsko & Judd, 2001). For instance, there are various subgroups among university students, like "nerds", "party-animals" or "artists" to name but a few, allowing to accommodate for a great range of behaviors among students. In contrast to a subtyping strategy, approaching a group in terms of its diversity is a good way to insure a moderate view, one that keeps all group members under the same umbrella and offers limited room for oversimplified conceptions regarding group members.

Because Allport considered stereotypes to be mainly a matter of (non)expertise, he appeared somewhat less sensitive to the circumstances under which categorical thinking is more or less prevalent within a given individual. Modern social cognition has been extremely prolific on this front. The thrust of the message is that the initial selection of a particular category (stereotype activation) and its further use (stereotype application) depend on a number of factors that relate to the perceiver, to the structure of the information, and to the circumstances in which information processing takes place (for integrative models, see Bodenhausen & Macrae, 1998; Brewer, 1988; Fiske & Neuberg, 1990**;** Kunda & Spencer, 2003).

Stereotype activation. As far as stereotype activation is concerned, the intrinsic salience of certain characteristics (such as race, age, or gender; Brewer & Lui, 1989) or their temporary salience in a situation due to their rarity or surprising nature (Taylor & Fiske, 1978) influence people's selection of one specific category over another. Chronic or transient goals are also important factors that orient the way perceivers approach other people in a given situation. Finally, stereotypic knowledge can become accessible even when perceivers remain unaware that it has been evoked in the first place.

Although category activation was long thought to require basically no intellectual resources, this assumption has now been challenged (Gilbert & Hixon, 1991). Interestingly, it has been proposed that the activation of a particular category may inhibit the activation of competing categories. In an illustrative experiment, Macrae and Bodenhausen (1995) had participants look at an Asian woman putting on make-up (to make gender salient) or eating rice (to make ethnicity salient). This encounter made stereotypically related words more accessible than control words. In contrast, the words associated with the opposing stereotype became less accessible (Bodenhausen & Macrae, 1998).

Stereotype application. Although category activation may well be pervasive in social perceptions, people do not invariably apply their stereotypic knowledge once a category label has been activated. Not surprisingly, assimilation to the activated constructs will depend on a host of situational constraints (Dijksterhuis & van Knippenberg, 2000; Macrae & Johnston, 1998) and personal characteristics (Smeesters et al., 2003).

In general, enhanced motivation and sufficient capacity to process fine-grained information increase perceivers' likelihood of attending to individuating information (rather than applying stereotypes). A striking example comes from a demonstration that "morning people" (vs. "night people") are more likely to be influenced by their stereotypes when confronted with a judgment task late (vs. early) in the day (Bodenhausen, 1990). In other words, more stereotyping is obtained when perceivers lack the energy to fulfill the judgment task than when they can count on their full intellectual vigor.

As Allport anticipated, applying stereotypes saves intellectual resources. Not only do stereotypes intrude more on judgments when there is a dearth of cognitive energy (Gilbert &

Hixon, 1991; Macrae, Milne, & Bodenhausen, 1994) but access to categorical labels may free intellectual resources that can be redirected toward other tasks. Although circumstances in which resources are scarce encourage the application of stereotypic knowledge (Dijksterhuis & Bargh, 2001), however, people may switch to more sophisticated (and costly) forms of thinking if able and motivated to do so. Social cognition work conducted over the last two decades provides ample evidence that strategic, individual, and situational factors moderate people's inclination toward "differentiated thinking." As we show in the next section, research on the role of integrity concerns lends even more credence to this assertion.

A New Framework: Autistic Thinking, the Motivational Side of The Coin

A noteworthy aspect of Allport's cognitive approach of intergroup perceptions is the view that categorical thinking is often directed at serving self-interests. This form of reasoning, which Allport called "autistic thinking," is at the heart of various recent lines of work (Leyens, Yzerbyt, & Schadron, 1992, 1994) and is nicely illustrated in the research conducted by Kunda and her colleagues on "motivated reasoning with stereotypes" (Kunda & Spencer, 2003). When confronted with a member of a stigmatized category (e.g., an Asian doctor), people may choose to appraise this target using one among several categorical bases (e.g., doctor or Asian). The selection of a particular category depends upon the way the interaction unfolds. If the target somehow frustrates the well-being of the perceiver or counters self-enhancement goals, the more derogatory category will impose itself whereas the more flattering category will be inhibited. Of importance too, although stereotypes may well be activated at early stages of an interaction, activation is not always found to last very long (Kunda, Davies, Adams, & Spencer, 2002). Chances are then that stereotypes will not be applied to a target at a later stage of the interaction unless some event (e.g., the emergence of a disagreement) triggers a need for people to fall back on their a priori views. That perceivers switch back and forth to stereotypes as a function of their relevance for the task at hand is consistent with the view that stereotypes are used when they prove useful in guiding perceivers' behavior.

In the above work, the reactions *vis-à-vis* the target person result from the nature of the interaction. Sometimes personal threats or frustrations influence judgments even when they are only incidentally related to the interaction. Research confirms that people change the way they perceive an out-group member when their self-worth has been challenged in an otherwise unrelated episode. Indeed, Fein and Spencer (1997) found that compared to people who initially receive positive feedback about their intelligence, those who learn that they have failed a test express more derogatory judgments when the feedback provider is Jewish (a stigmatized category) than when she is not. Moreover, the more the threatened individuals derogate the Jewish candidate, the better they feel afterwards. Whereas the above work establishes the impact of self-threats on stereotype application, similar conclusions have been reported at the activation level.

Allport hypothesized that "the process of perception-cognition is distinguished for three operations that it performs on the 'light without.' It selects, accentuates, and interprets the sensory data" (1954/1979, p. 166). This claim is supported by work on hypothesis confirmation (Snyder, 1984). People working under the guidance of a particular hypothesis, and a stereotyped category would certainly qualify here, tend to rely on strategies that uncover evidence that supports rather than questions the validity of this hypothesis.

Numerous studies confirm that people are indeed highly selective in the information they collect to test their hypotheses about others, and that accentuation, biased interpretation, and selective memory often favor confirmatory evidence. In a study by Darley and Gross (1983), participants watched an ambiguous video showing a girl performing a number of scholastic tests. Participants who had initially been told that the girl was from a poor socioeconomic background saw a much poorer performance than those who believed she was from a wealthy family (see also, Yzerbyt, Schadron, Rocher & Leyens, 1994). A disturbing message emanating from hypothesis confirmation work is that perceiver's initial hypotheses are likely to create a reality that eventually confirms their initial stereotypical expectations.

In sharp contrast with a simple-minded "energy-saving device" view sometimes advocated by social cognition researchers, a view by which cognitive resources would be associated with a decreased impact of stereotypes, the work on hypothesis confirmation suggests that, when confronted with contradictory evidence, people may devote considerable resources in order to *save* the structure and content of their categories. Indeed, people have been found to exert a substantial amount of cognitive work in order to avoid revising their current views (Ditto & Lopez, 1992; Yzerbyt & Leyens, 1991).

Consistent with Allport's view on stereotype preservation, various studies on stereotype change have emphasized the active role that perceivers play in keeping their preconceptions intact. Kunda and Oleson (1995) found that the presence of an irrelevant piece of information facilitated perceivers' work in fencing off the deviant. Initially neutral, the irrelevant information was now deemed to "explain" the deviance, allowing perceivers to keep their general expectations intact. Only when no irrelevant information was provided were perceivers forced to integrate the information about the deviant in their representation of the group as a whole. There are thus limits to people's ability to bend reality.

The issue is not only whether additional information gives room for the reinterpretation of the evidence, but also whether perceivers enjoy the necessary cognitive resources to actively salvage their cherished beliefs. As a matter of fact, research reveals that perceivers confronted with a deviant group member manage to dismiss this inconsistency (thereby retaining the original stereotype unaltered) unless they face another cognitively-demanding task (in which case their general stereotype is weakened) (Yzerbyt, Coull & Rocher, 1999). "Fencing off" a deviant is a job that comes with its attentional cost, one that people are nevertheless willing to pay if this can help them to maintain their preconceptions.

That people are ready to invest resources to keep with their initial views and feel compelled to work hard when unexpected evidence pops up is not only detailed in work on person memory, hypothesis confirmation, and stereotype change. This pattern has been reported in many other areas, such as attribution and persuasion. All in all, social cognition work is thus strongly compatible with the idea that perceivers have a vested interest in the inertia of their beliefs. In line with lessons from attitude change research, our prediction is that stereotypes are likely to be even more resistant if they survive a stage of thorough examination during which perceivers actively reaffirm them. It would thus seem that stereotypes can emerge in two rather different contexts. Besides being handy interpretations of the evidence, highly susceptible to being abandoned or modified whenever more attention is devoted to the stimulus information, they may also result from a thorough rationalization process and should then be seen as deeply rooted beliefs likely to resist most contradictory facts.

Does this mean that people are never motivated to stay away from stereotypes? Not necessarily. Whereas contemporary work acknowledges the role of integrity concerns and enhancement goals on stereotype maintenance, other studies suggest that perceivers can be eager to avoid stereotyping. This can occur because people are motivated to live up to personal standards or social prescriptions of fairness, resulting in attempts at stereotype suppression (for a review, see Monteith, Devine & Sherman, 1998; Devine, this volume). Research on mental control suggests that this commendable line of action may not always be the ideal strategy it seems to be at first sight. Indeed, because suppression apparently activates the very stereotype people wish to combat, stereotypic materials can become even more accessible during later encounters with members of the target group, causing a “rebound” effect of stereotypes on judgment and behavior when suppression is no longer enforced (Macrae, Bodenhausen, Milne &

Jetten, 1994). The paradoxical consequences of suppression are also demonstrated in studies showing that perceivers initially asked to suppress a stereotype later preferentially recalled (Macrae et al., 1996) and recognized (Sherman et al., 1997) stereotype-consistent over stereotype-inconsistent materials presented during the suppression episode.

Is it then best to forego suppression altogether? This would be a premature conclusion as some people seem able to suppress activated stereotypes without incurring the cost of rebound effects (for a review, see Monteith et al., 1998). For instance, Monteith, Spicer and Tooman (1998) found that low-prejudice participants are less susceptible to rebound effects than high-prejudice participants. Presumably, low-prejudice people are more motivated to control the application of cultural stereotypes and have more practice with such control than their high-prejudice counterparts. To be sure, the impact of egalitarian goals or norms may also be situated at the activation stage in that low prejudice people may simply never evoke the derogatory stereotype in the first place (Lepore & Brown, 1997; Moskowitz, Gollwitzer, Wasel, & Schaal, 1999). Also, it seems that not all target categories lend themselves to rebound effects as stereotype control is likely to be maintained on a spontaneous basis for categories that are highly sensitive (e.g., race).

Has Allport Been Supported?

Over the five decades that followed the publication of *The Nature of Prejudice*, researchers have embraced Allport's ideas regarding the role of cognitive processes and accumulated an impressive series of findings establishing the central role of categorization and stereotypes in the formation, use, and change of beliefs about groups. As key tools in people's dealings with the social environment, stereotypes are likely to prevail not only when perceivers lack the ability and motivation to deal in a scrupulous and impartial way with the stimuli they encounter but also when they are attached to a particular interpretation of the world or are otherwise frustrated in their pursuit of a positive view of themselves and their reference groups.

The gap in conceptualization and indeed often-mentioned tension between seeing stereotypes as a energy-saving cognitive shortcuts or cherished explanations of the surrounding world has probably fueled some misunderstanding between the two most productive lines of work on stereotypes and intergroup relations, namely social cognition and social identity (for a similar point, see Abrams & Hogg, 1998; Leyens, Yzerbyt & Schadron, 1994). For the latter strand of research, stereotypes are used for the purpose of giving meaning, asserting perceived hierarchies between groups, and emphasizing group identities. For the former, stereotypes are simplifying devices that allow individual perceivers to deal with incoming stimuli in a manner that alleviates the burden of complexity. The growing role afforded to self-promoting goals or even social concerns within social cognition work and a closer consideration for the cognitive dimensions of stereotyping within social identity work offers great promise for future convergence of these two approaches.

Future Directions

In our opinion, four research topics have started to attract and will increasingly draw the attention of researchers in the next few years. The first concerns the impact of people's social position on their processing of social information. Factors as diverse as the power people have (e.g., Corneille & Yzerbyt, 2002; Fiske, 1993; Guinote, Judd & Brauer, 2002), the immediate audience they have to face (Stangor, Sechrist & Jost, 2001; Yzerbyt & Carnaghi, 2003), or the moral credentials they enjoy (Monin, & Miller, 2001) have all been shown to shape people's reactions to groups and group members (see also Jackman's and Rudman's chapters in this volume). In our view, research on these and related topics will likely receive enhanced attention in the forthcoming years.

Second, we see a growing interest in how people's communication about the reality of groups and group members is affected by and indeed shapes social representations. The way stereotypes are formed, established, and changed through communication is a fascinating - yet quite neglected - issue that researchers have just started to examine (Kashima, 2000; Ruscher, 2001). A better recognition of the fact that categories about groups are a social product as much as they are an outcome of individual cognitive processes is a central endeavor for future research (McGarty, Yzerbyt & Spears, 2002).

Third, emotions have received an increasing amount of attention in the domain of intergroup relations (see also Smith & Mackie, this volume). This research has concerned the impact of people's mood on their processing of category and individual information (e.g., Bodenhausen, 1993), the beliefs people hold about the nature of emotions experienced by members of different groups (Leyens et al., 2000), or the emotions people experience as a function of their self-categorization into, and identification with, groups (e.g., Mackie, Devos, & Smith, 2000; Yzerbyt, Dumont, Gordijn & Wigboldus, 2001).

Finally, the possibilities offered by the tools of mental imagery, and the current attention devoted to neuroscience issues, suggest a growing interest in the psychophysiological and neurophysiological correlates of stereotyping and prejudice. This emerging area has been the subject of recent symposia (e.g., see the special issue of the *Journal of Personality and Social Psychology – Attitudes and Social Cognition*, October 2003, on this topic).

Half a century ago, the path opened by Allport in his groundbreaking work made clear that the boundaries of people's cognitive apparatus and the restrictions imposed by self-interest likely join together to shape social judgment. For the many travelers that embraced social cognition, the journey has been every bit as fascinating Allport advertised it to be. Our intuition of what the future research holds similarly stresses the interplay of reality constraints and integrity concerns in the perception of groups and group members. The promise is thus for even more integration of cognition and motivation, a perspective Allport would surely have liked.

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