Situated Social Cognition

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ABSTRACT—*Social cognition refers to the mental representations and processes that underlie social judgments and behavior—for example, the application of stereotypes to members of social groups. Theories of social cognition have generally assumed that mental representations are abstract and stable and that they are activated and applied by relatively automatic, context-independent processes. Recent evidence is inconsistent with these expectations, however. Social-cognitive processes have been shown to be adaptive to the perceiver's current social goals, communicative contexts, and bodily states. Although these findings can often be given ad hoc explanations within current conceptual frameworks, they invite a fuller integration with the broad intellectual movement emphasizing situated cognition. Such an approach has already been influential in many areas within psychology and beyond, and theories in the field of social cognition would benefit by taking advantage of its insights.*

KEYWORDS—*situated; context; automatic processes; social cognition; stereotypes*

The study of social cognition is the subfield of social psychology concerned with understanding the mental representations and processes that contribute to human social judgments and social behavior—the ways people perceive and evaluate other people and social groups and act toward them. Like most scientific fields that owe much to the "cognitive revolution" of the 1960s and '70s, the field of social cognition relied heavily on theories that describe perceivers as constructing, activating, and applying abstract symbolic representations (schemas, prototypes, etc.). In this article, we describe that viewpoint, as well as some recent empirical findings that call it into question, in topic areas that have been at the center of empirical and theoretical work in social cognition. We then consider some larger theoretical implications of those findings.

Theories emphasizing abstract representations are exemplified by mainstream work on stereotypes, which are defined as a perceiver's beliefs about the general characteristics of a social group (e.g., the belief that women are emotional and unassertive). Like any schematic knowledge structure, stereotypes have two functions: (a) to summarize the perceiver's existing knowledge about the social group (obtained through social learning from others or through direct encounters with the stereotyped group) and (b) to shape interpretations of new information and inform judgments about members of the group when they are encountered in the future. Until perhaps a decade ago, research emphasized the stability of such representations—that is, that stereotypes, once learned, are hard to change even when the perceiver encounters information that would challenge them. The observed stability even motivated entire lines of research examining the processes responsible for it (e.g., "subtyping" of stereotype-disconfirming group members so that they have little impact on the stereotype representation). Research also established that stereotypes can be activated and applied in a relatively automatic fashion when a perceiver merely encounters a member of a stereotyped group. Importantly, this process occurs even if the perceiver does not consciously endorse or wish to use the stereotype—a common occurrence in today's world, where the use of stereotypes is often socially condemned. This point is demonstrated by studies showing stereotype effects on implicit measures, such as measures that rely on measurement of response times in priming paradigms (see Fazio & Olson, 2003). Implicit measures, in contrast to rating scales or other explicit self-reports, tap relatively automatic processes and make it difficult for perceivers to voluntarily control their responses.

As of a decade or so ago, most researchers would have agreed that symbolic representations such as stereotypes are abstract, stable, and general knowledge structures (or schemas); that they are activated automatically and independent of the perceiver's goals, upon the mere categorization of an appropriate social-stimulus person; and that their activation makes their content available and likely to influence the perceiver's judgments and actions, even against the perceiver's wishes.

In contrast to that view, more recent evidence suggests that stereotypes' effects on social judgments and social behaviors are extremely malleable and sensitive to details of current social situations. After illustrating this point, we will discuss its broader theoretical implications. Our argument is threefold: (a) The existing literature generally provides specific, ad hoc

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explanations for these contextual effects rather than treating them as an integral part of theory; (b) context sensitivity can best be explained by powerful, integrative principles deriving from the "situated cognition" approach; and (c) these principles, when fleshed out in terms of their applicability to social cognition, will facilitate further theoretical and empirical progress in social-cognition research.

SITUATIONAL CONTEXTS AND SOCIAL COGNITION

For cognition to be adaptive, concepts must be used in different ways in different situations. Thus, another way of looking at stereotypes is that they flexibly reflect a perceiver's current social motives and relationships with others in the situation rather than representing abstract and stable schemas. Consider someone who is a member of two social groups with widely differing stereotypes, such as an African American (stereotyped as poor and unintelligent) physician (affluent, intelligent). If a social perceiver is praised by such a person, features of the positive stereotype are automatically activated, while the negative stereotype is suppressed. In contrast, if the perceiver is criticized by that person, it will trigger activation of the negative stereotype rather than the positive one (Sinclair & Kunda, 1999). These effects, which are observed on implicit measures, do not occur when a perceiver simply observes the target person praising or criticizing someone else. Thus, the effects appear to arise because the perceiver's motive to believe praise and disparage criticism acts as a constraint that influences fundamental processes of stereotyping.

Not only the perceiver's current motives but other contextual variables affect the activation and use of stereotypes. One thing that matters is the perceiver's emotional state: Implicit measures show that, when a person is angry for an irrelevant reason, negative stereotypes will be more readily applied to out-group members than when that person is in a neutral or happy state (DeSteno, Dasgupta, Bartlett, & Cajdric, 2004). Incidental exposure to positive or negative exemplars of a social group, in a task-irrelevant context, also influences stereotype-relevant judgments about that social group. For example, exposure to liked African Americans (such as Michael Jordan), compared to disliked Black criminals, makes White students more favorable toward affirmative action programs (Bodenhausen, Schwarz, Bless, & Waenke, 1995). This occurs even though one might plausibly reason that Michael Jordan's example demonstrates that even members of a disadvantaged group can attain economic success, diminishing the perceived need for affirmative action.

COMMUNICATION AND SOCIAL COGNITION

The adaptiveness of cognition to current situations is particularly evident in regard to the social situation, including communicative relationships between the perceiver and others.

Communicative relevance has recently been shown to moderate the well-known tendency to enhance in-group identity and derogate out-group identity through systematic differences in language use when describing positive or negative behaviors of in-group and out-group members. The so-called linguistic intergroup bias (Maass, 1999) effect is that, when describing positive in-group behaviors, people tend to use abstract concepts (e.g., adjectives) to imply that such behaviors are enduring characteristics of in-group members. So if John assists an elderly woman across the street, a member of John's in-group might say "John is helpful." Abstract terms are similarly used to describe negative behaviors of out-group members. In contrast, people minimize the diagnostic significance of negative in-group behaviors (and positive out-group behaviors) by describing these with concrete, highly specific terms. An out-group member might say, "John walked across the street with the woman." This influential theory assumes tacitly that the linguistic bias depends on autonomous inner processes, independent of communicative context.

In a situated view, giving a description of a positive or negative behavior is only adaptive and meaningful if it serves a communicative function. To test this idea, Semin, de Montes, and Valencia (2003) examined perceivers' written descriptions of other individuals' behavior in different communicative contexts. Systematic variations in the linguistic properties of messages were only found when participants expected their descriptions to have a communicative function—that is, when they expected that their descriptions would be read by the person whose behavior was being described. In another condition in which participants believed that their descriptions would never be read by anyone, the bias was not found. This finding contradicts the idea that the linguistic bias flows from autonomous, invariant cognitive processes, replacing it with the insight that communicative function determines the nature of those processes. An important feature of a socially situated cognition approach is that it invites researchers to specify not only psychological processes and their effects but also their boundaries. If certain responses do not serve a function, then the processes leading to them will not be activated.

Communicative contexts affect many types of social-cognitive processes. One oft-studied effect is that social perceivers tend to explain other people's behavior in terms of those people's inner personality characteristics, desires, or beliefs rather than in terms of the demands of social situations. This tendency has been viewed as automatic, fundamental, and linked to the properties of abstract mental processes. However, using the most minimal of cues—a letterhead that read either "Institute for Social Research" or "Institute of Personality Research"—to signal the nature of the audience for participants' questionnaire responses, Norenzayan and Schwarz (1999) demonstrated the susceptibility of this supposedly fundamental and automatic attribution processes to contextual influences. Participants were asked to report their causal explanations for a mass murder

based on a newspaper report. Their explanations were more situational and less dispositional if the letterhead introducing the questionnaire read "Institute for Social Research." In contrast, the "Institute of Personality Research" letterhead resulted in more dispositional causes being given. Norenzayan and Schwarz (1999) suggest that their subtle manipulation of the communicative context influenced participants' perceptions of what was epistemically relevant to the researchers.

Yet another compelling illustration of the effects of communicative contexts on cognition comes from studies by Higgins and Rholes (1978). In these studies, speakers were motivated to present themselves positively to listeners. This interdependence between communicator and recipient influenced not only the message that communicators presented but also their private beliefs. Communicators distorted their messages to make them consistent with their audiences' attitudes. Moreover, the biased content of their messages affected communicators' own beliefs, when measured with a questionnaire after a delay. The issue of how the relationship between speaker and audience regulates the properties of messages, or *audience design*, has been elaborated in diverse research. While cooperative relationships lead to messages converging with the views of the audience, competitive or adversarial relationships are likely to lead to divergence. Research on audience design and on communicative contexts in general supports the adaptive, situated view of cognition.

THEORETICAL IMPLICATIONS

As the above examples show, recent research has amply documented the situation specificity and flexibility of many types of social-cognitive processes. Yet in many cases, context sensitivity has been regarded as a kind of noise, as an inessential distraction—even a barrier—to the study of the hypothesized invariant representations considered by many researchers to be the most fundamental causes of social judgment and social behavior. As a result, context sensitivity has often been explained (if at all) with unintegrated theoretical "add-ons"—secondary, often paradigm-specific processes that merely moderate the mental processes of fundamental interest. For example, the context sensitivity of stereotypes has often been thought to reflect participants' intentional shaping of their responses to avoid revealing socially undesirable stereotypic or prejudiced thoughts (Fazio & Olson, 2003). This explanation has recently lost much of its appeal in the face of evidence that (a) even implicitly measured stereotypes, less subject to intentional response biases, are highly context sensitive (Blair, 2002) and that (b) nonsocial concepts, for which social-desirability concerns are not an issue, are also context sensitive (Yeh & Barsalou, 2006).

More progress might be made with a theoretical approach that makes interdependence and mutual constraint between person and context a central focus rather than a mere distraction from the inner representations and processes assumed to be of primary interest. In our view, the most promising approach is that of situated cognition (Clark, 1997). This movement has been influential across many areas of psychology and the cognitive and social sciences in general, but it has had relatively little impact within social psychology. Yet, as we have argued (Smith & Semin, 2004), its major themes offer a number of points of contact and similarity with the enduring concerns of social psychology. Situated cognition offers not only a powerful and fundamental critique of the idea that cognition is simply abstract, amodal information processing, but also a number of more positive principles and points of focus. We suggest three broad principles as desiderata for theoretical integration and progress in social-cognition research.

First, we urge theorists to avoid the language and metaphor of the "storage" and "retrieval" of representations, which imply that representations are static, inert "things," and to instead conceptualize representations as states that are constructed online in specific contexts. Human cognitive systems produce situated versions of concepts that have context-specific functions rather than activating the same, context-independent configuration in every situation (Yeh & Barsalou, 2006).

Second, researchers should acknowledge that adaptive cognition involves perceptual–motor loops that pass through the environment (Clark, 1997) rather than being mostly implemented by autonomous inner processes. Strong support for this principle comes from recent work placing sensory and motor information at the heart of both conceptual representations in general (Barsalou, 1999) and particular social-cognitive processes like understanding other people (Semin, 2007). For example, the recent discovery of mirror-neuron systems in the brain suggests that we use our bodies—covertly in the form of activity in motor cortex, or overtly in bodily movements—in the process of understanding other people's actions and emotions.

Third, theory should reflect the ways that cognition is socially enabled and distributed through communication (Hutchins, 1995). Communication fundamentally shapes and even constitutes cognition, making cognition truly social. Many tasks, such as performing heart surgery or navigating a large ship, supersede the capabilities of an individual and require the collaborative operation of a group that has a shared reality facilitating the coordination of its actions. In such situations, cognition is to be found in collaborative communication rather than in any one single individual's head. Cognitive processes draw not only on resources in the social environment but also on technical equipment (monitors, readouts, maps, etc.) into which considerable knowledge is downloaded. Tasks such as these involve truly social cognition, extended beyond the individual through environmental scaffolds, both social and nonsocial.

The theme that cognition is situated—not isolated in inner representations and processes but causally interdependent with the current physical and social environment—resonates with findings, such as those outlined in this article, that

situations and communicative contexts pervasively influence social thought and action. This suggests that the situated-cognition approach may ultimately provide general explanatory principles that can take us beyond the ad hoc explanations often offered for such findings. Situated cognition is not yet a unified theoretical framework by any means, but it is an approach that offers general principles and emphases that cut broadly across many scientific disciplines. We believe that social-psychological findings demonstrating the adaptiveness, context sensitivity, and socially situated nature of social cognition can find satisfying and integrative explanations within such an approach.

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