Intentions and Intentionality

Foundations of Social Cognition

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The Social Folk Theorist: Insights from Social and Cultural Psychology on the Contents and Contexts of Folk Theorizing

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The question of how a person makes sense of others' behavior—how a perceiver of action judges such things as intentionality, causality, and responsibility—is central to many areas of study. Much work in social and developmental psychology addresses such questions of perception and judgment, as does scholarship in various parts of philosophy, jurisprudence, organizational behavior, and game theory. In most cases, the perceiver is portrayed as something of a lone, semi-rational folk scientist drawing conclusions in a fairly deliberate fashion from everyday theories and from the data of an isolated actor's observable behavior. This perceiver-as-scientist metaphor has been invoked in models of how observers assess one another's personalities, how negotiators consider strategic moves, how jurors decide guilt, how managers appraise employees, and a host of other forms of social inference.

Although such a description of ordinary social judgment is certainly fruitful, and perhaps necessary in some sense, it has tended to leave several important aspects of everyday perception unexplored. Notably, its seems clear that folk scientists are themselves enmeshed in social contexts that shape their thinking. Status demands, for instance, affect who pays attention to whom and for what reason. Likewise, conversational audiences affect what judgments are produced and how they are framed. Yet not only are folk scientists themselves enmeshed in social contexts; their ordinary theories reflect such social phenomena. Perceivers make use of information on group membership in judging actors, and they understand behavior in light of obligations attached to social roles. Further, perceivers often make important judgments about groups as social entities, assigning praise to a team or responsibility to a corporation. Thus, the image of a lone folk

scientist laboring to make sense of a single agent's behavior is helpful but incomplete in its recognition of social context as it surrounds the perceiver and as it is reflected in the perceiver's folk theories.

In this chapter, we review insights from social and cultural psychology that both confirm and expand the perceiver-as-scientist view. First, we discuss how folk theories reflect social contexts as perceivers use them to understand groups, acknowledge norms, and perform other feats of inference that reflect a social world beyond a single target of perception. The implication is that scholars of social judgment should be inclined to ascribe such social theories—a folk sociology, or a folk social psychology—to ordinary perceivers. Second, we address how folk scientists perform in social contexts, examining important interpersonal factors (including roles and interaction goals) and the intrapersonal mechanisms they affect. Here, we portray the folk scientist as concerned not only with truth but also with adaptive, pragmatic action in the social world. In the third section, we explore the role of culture as it relates to both of the other themes. Perceivers are members of cultures, and cultures shape folk theories and folk theorizing. The image that emerges from these three related collections of observations is that of the *social* folk theorist—the perceiver as a folk scientist embedded in social context and invoking folk theories of the social world.

Before we review selected research, though, let us briefly clarify our perspective. In chapter 14, we tried to bring insights from developmental theory of mind[1] to social psychology. This chapter is an effort to bring relevant social-psychological observations to developmental psychology and other traditions. We recognize, though, that other disciplines have aims that differ from those of social psychology, and we don't propose abandoning them. Instead, we suggest that a variety of fields concerned with social judgment can benefit in their own aims from the insights described here into how folk theories reflect, and are put to work in, social context.

We also note that the literature of social psychology is extremely pluralist, perhaps too much so, in its approach to social inference. Various scholars study attribution, trait ascription, stereotyping, impression formation, assessments of responsibility, blaming, account giving, explanations, and a variety of other kinds of social judgments. These literatures are often isolated from one another, and for the most part they do not treat these phe-

nomena from the perspective of theory of mind or intentionality. Still, ideas and findings can be culled from all these areas that bear on questions of folk theorizing and the perception of intentionality. At the heart of all these judgments are inferences about the mental properties of others: explaining, forming impressions, and assigning responsibility are all close cousins, connected by the ability of perceivers to make inferences about others' minds. Thus, this chapter borrows from a wide range of research traditions, but it does so in the service of examining the contents of folk theories of mind and the contexts in which those theories are put to use.

Folk Theories Reflect Social Contexts: The Role of Groups and Norms in Social Inference

One way social psychology can inform theory-of-mind research is by extending the range of explanatory entities scholars ascribe to folk perceivers in social sense making. Theory-of-mind scholarship has focused almost entirely on folk-psychological conceptions of the minds of *individuals*. Moreover, it has focused on a particular set of such abstract entities, particularly beliefs, desires, perceptions, and emotions. These individual mental states, however, do not exhaust the concepts perceivers use in explaining human action.

The literatures of social and cultural psychology point to other explanatory concepts that are equally abstract but very different from the usual apparatus of belief-desire psychology. In particular, they suggest that people often explain behavior in terms of *groups* rather than individuals—that is, people give explanations that rely on groups as agents and also explain the actions of individuals in light of their group memberships. Perceivers have a folk sociology or a folk social psychology in addition to a folk cognitive psychology, a folk motivational psychology, and a folk affective psychology. Social-psychological work also suggests that perceivers often explain action in terms of deontic concepts such as rules and norms. In explaining why a person commits some action, perceivers may say "She was obliged to" or "He promised he would." Such explanations clearly rely on theory of mind, but they may reveal a distinct mode of inference that should not be reduced to individualistic belief-desire psychology. In the following sections, we take up this issue of deontic concepts and also

examine how folk theorists deal with groups and with the social contexts of targets.

Groups, Group Members, and Construal of the Agent

A notion like group identity is described by developmental-theory-of-mind scholars, and some trace it to the very beginning of development. Various scholars have suggested that an infant's first conception of minds may be supra-individual (Gopnik and Meltzoff 1997). At the start, infants may have a notion of group mental states, although the group may only be the dyad of "me and the one I love." Psychologists point to a variety of fine-grained communicative interactions and conversational dances that take place between infants and caregivers as evidence for such a supra-individual conception. Gopnik and Meltzoff (1997) have argued, in particular, that the phenomenon of early imitation is both evidence for such an early social conception of the mind and a mechanism in establishing it.

Nevertheless, the progress in theory of mind in the developmental literature has largely been conceived of as a move away from these early, more nearly all-embracing views to views that recognize individual variation and difference. Meanwhile, the perception of groups has stood out as a major topic of active study in social psychology for the discipline's entire history. This tradition has featured considerable research examining the role of stereotypes and social-category information in social inference; judgments about groups themselves as agents have also been an important focus of study.

Stereotyping and Social Categories

A schoolboy walks down a crowded hall and clips another young man with his shoulder, sending him lurching forward. An accident, a playful bump, or a menacing shove? The question turns on perceived intention. As a long tradition of experiments from the classic work of Floyd Allport to the more recent research of Sagar and Schofield (1980) has shown, perceivers use social-category information in answering it. Acts such as ambiguous shoves are interpreted as substantially more threatening when they are performed, all else equal, by blacks rather than whites—an effect, Sagar and Schofield demonstrate, that holds for both black and white perceivers. Even though these authors don't frame the findings in theory-of-mind terms, it can sensibly be concluded that the inference of intentions

underlying such ambiguous behaviors is at least partly driven by the group membership of agents. Perceivers' stereotypes shape their inferences of an agent's mental states.

A number of social psychologists offer models of person perception that highlight the role of social-category information in inference. Many of these models are cast as theories of stereotyping. (For a recent review, see Fiske 1998.) Taylor's (1981) categorization theory, for instance, argues that information tagged by distinctions such as race and gender guides stereotypic interpretation of behaviors, ultimately leading to exaggeration of between-group differences and minimization of differences within the in-group. Brewer (1988) proposed a dual-process model in which perceivers rely initially on category information in judging persons and later, if time and resources permit, revise that impression with individuating information. However, stereotypes are involved in more than just general impressions (such as "he is aggressive"). Many studies (e.g., von Hippel, Sekaquaptewa, and Vargas 1995) have shown that stereotypes guide basic attention, perception, and encoding early on in the interpretation of behavior. Surely such stereotype-driven (i.e., theory-driven) construals have consequences for inferences of intentional states. The perceiver's journey from witnessing ordinary behaviors to inferring underlying intentions may often be routed, perhaps implicitly and automatically, through social-category stereotypes.

Judgments about Groups

The targets of social judgments are not always individuals. Perceivers often make inferences at the group level—for instance, that a family is happy, or that a comedy troupe is perverse. A person may judge that a team of company executives is liable, or that a group of bystanders bears some responsibility for the outcome of an accident. People may even ascribe mental qualities to groups, saying that a collection of persons "felt," "remembered," "believed," or "wanted" something. All these judgments rely heavily on folk psychology, often leveraging folk theory-of-mind concepts and applying them at the group level.

Emerging work by Lickel and others sheds light on the qualities of groups that underlie how folk psychology is applied to them (Lickel, Hamilton, Wieczorkowska, Lewis, Sherman, and Uhles 2000). Central to

the application of an intentional stance to a group is the group's interdependence—the degree of interpersonal interaction among group members. Importantly, different kinds of groups achieve different levels of interdependence. For instance, intimacy groups (small, impermeable, long-lasting groups, such as families or circles of friends) often have higher levels of interdependence than social categories (which typically are large, long-lasting, and impermeable collections of people such as ethnic groups). Accordingly, folk perceivers are more willing to ascribe intentional terms such as "decided," "planned," and "wanted" to intimacy groups than to social categories (Lickel, Hamilton, and Sherman 1999). Lickel and his colleagues have also shown that many of the same qualities that lead to mentalistic descriptions of groups also support judgments of responsibility for groups: the more a group is seen as interdependent, the more folk perceivers are willing to assign responsibility to the group as a whole (Lickel, Schmader, and Hamilton 2000).

Inferring the attitudes and intentions of groups appears to rely on the same strategies used for inferring individual mental states: simulation/projection (Goldman 1989; Goldman, this volume) and theorizing (Gopnik and Wellman 1992). Ames (2000a) shows that each of these strategies has a role in the inference of beliefs and desires at the group level and the population level. Similarity theories guide how social projection—akin to simulation—is used. Perceivers who believe they are highly similar to a given group show a willingness to project their own beliefs and desires into their predictions of that group's beliefs and desires. Such belief-driven projection occurs whether or not the group is actually similar to the perceiver on the given stances. Further, when perceivers are led to consider how they are dissimilar from a target group, their use of social projection declines. Meanwhile, evaluative theories about groups help guide the inference of favorable and unfavorable attitudes. For instance, when Berkeley students inferred the frequency among Stanford students of a desire for money and power over companionship and affection (widely seen as an unfavorable attitude), they drew on their idiosyncratic beliefs about the goodness of Stanford students—in a word, their stereotypes. In short, perceivers infer the intentions and attitudes of social groups through a combination of simulation/projection and theorizing—an application of theory of mind to the group level.

Social Norms and Construal of Action

Agents are also judged in terms of identities that are relevant to social codes or rules of conduct (Schlenker 1997, Schlenker, Britt, Pennington, Murphy, and Doherty 1994). These rules have a deontic character; that is, they involve obligations, rights, and norms for proper behavior. For example, John is perceived not just as an individual but as a member of a particular group (e.g., an American citizen, a male). In addition to whatever dispositions such memberships might indicate, they lead us to see the individual as embedded in a deontic network including formal rights and obligations (e.g., those related to citizenship) and more implicit social norms (such as those related to gender stereotypes). For example, by virtue of his social identity, John has the right to vote, but he shouldn't wear a dress. Perceivers rely on such deontic considerations in their inferences and explanations.

For social psychologists, explaining social judgments in terms of agents' conceptions of social rules, norms, and obligations is commonplace. Less attention is given to how folk perceivers use such concepts in their lay explanations. Meanwhile, deontic considerations have been largely absent from accounts of developing theories of mind. This work has instead focused on individual-level representational explanations. Perceivers are seen as explaining a given agent's behavior by positing intentional states of the agent that are largely endogenous (that is, springing from within). Why did Julie go to the store? Because she had some desires and beliefs: she wanted milk and believed there was some at the store.

However, such a theoretical vocabulary of representational states does not fully capture deontic concerns. Why did Julie go to the store? A deontic explanation might be that her mother told her to. In some sense, this is intentional in that Julie is not an automaton: she *believed* her mother told her to go to the store, and she *wanted* to abide by her mother. Yet it seems worthwhile to recognize the uniquely social nature of these intentions. Folk inferences and explanations at the deontic level require a model of perceivers' recognizing others beyond the particular target agent—persons, groups, and societies that demand or prohibit certain kinds of behavior. Indeed, such contextual thinking could be seen in terms of Malle's (1999; this volume) model of folk intentional explanation, which highlights "reasons" (e.g., Al smiled at George because he wanted to be nice) and "causal

history of reasons" (e.g., Al smiled at George because George was nice to him). Deontic explanations could be seen as a special kind of causal history of reason that is *someone else's* reason: Al smiled at George because his mother wanted him to be nice . . . and, it might go without saying, Al was compelled to do what his mother wanted him to do. The someone else in this case could be a particular person or a group or society as a whole. Thus, deontic explanations often take the form of a target adopting an intention that is someone else's (or some other collective's) intention.

Deontic reasoning about targets, then, is a kind of intentional inference or the other of these stances in their judgments and accounts. Past research invoking social context. Deontic concepts and intentions could be seen as different *stances* for viewing and explaining action (Dennett 1987). A question naturally arises about the conditions under which people engage in one suggests a number of possible factors: Norm-consistent behavior evokes deontic explanation, rule violations evoke intentional explanation; deontic reasoning is directed at familiar agents, intentional reasoning at strangers; deontic reasoning is used for the self, intentional reasoning for others (one way of describing the much-studied "actor/observer effect"). Further, perspectives from cultural psychology suggest that people may differ in the degree to which different forms of explanation are chronically accessible. Mental-state explanations may be more salient or may demand fewer cognitive resources in some cultures; deontic explanations may be preferred in other cultures.

Emerging developmental work is examining how deontic concepts are used in social thinking and the relationship between the deontic and intentional stances among children. Kalish (1998) has explored young children's understanding of the psychological processes involved in following a rule. When adults employ deontic explanations, they may implicitly assume that certain psychological events are occurring in the agent. Kalish's work suggests that developments within theory of mind may constrain children's appreciation of the psychological bases of social behavior. Young children may not apprehend the intentions underlying deontic constraints, such as an agent's awareness of a norm. Kalish and colleagues have also examined children's understanding of how social rules (as distinct from physical laws) are established. Kalish, Weissman, and Bernstein (in press) suggest that young children's conceptions of epistemic relations—the connections

between representation and reality—limits their ability to understand some kinds of stipulations.

If theory of mind is to provide a full account of explanation, prediction, and judgment of behavior, it will have to expand its focus beyond issues of representation to include the study of the psychological states and processes that underlie deontic relationships. Although it may be the case that deontic explanations are "reducible" to intentional ones, treating them as synonymous in models of folk psychology omits important contextual components: norms and prohibitions, and the persons, groups, and societies that establish them. Theory-of-mind models could profit from embedding targets of folk explanation in social contexts of norms and obligations.

Folk Scientists Perform in Social Contexts: Interpersonal Factors and Intrapersonal Mechanisms

The topic of social sense making (how everyday perceivers understand the social world) has attracted different academic disciplines for different reasons. Social psychologists (e.g., Fritz Heider, Gustav Ichheiser, and Harold Kelley) were drawn to the topic of social inference in order to understand its consequences—the ways individuals respond to one another in interactions.[2] Accordingly, the notion of perceiver as scientist has been qualified to capture the role of inference as an expedient guide to practical action. For example, perceivers do not ascribe intentions to a potential aggressor out of detached interest in the truth; rather, intention inferences are relevant to judgments such as the assignment of responsibility, which, in turn, lays the groundwork for *actions* such as blaming, punishing, avoiding and so forth.

This emphasis on inference in the service of pragmatic action has led to various other metaphors, including viewing perceivers as lawyers (Hamilton 1980) and as politicians (Tetlock 1991). Further, the emphasis on consequences of social judgment has led to a concern for lapses in decision making and inference. Social psychologists are often drawn to the fallibilities of perceivers, such as stereotyping, overly dispositional attributions, and the effect of self-enhancement motives on reasoning. As a result, social psychologists have spent much research effort examining contextual drivers of performance rather than focusing on performance in contexts that enable participants to show their best judgment and competence.

Developmental psychologists, meanwhile, pursue somewhat different aims and accordingly adopt a different stance toward perceivers. Developmentalists have often studied the child's theory of mind (Wellman 1990; Gopnik and Meltzoff 1997) with an emphasis on understanding how human abilities unfold. These scholars often focus on documenting children's growing *competence* rather than tracking their everyday *performance* at social sense making. Developmental research on theory of mind often centers on what children at a given age are capable of at their finest moments (e.g., do 3- year-olds "have" a theory of mind?). Accordingly, research designs are crafted to facilitate the child's making use of the most elaborate theory that he or she possesses; there are few distractions and no tempting shortcuts. Major theory rivalries in developmental theory-of-mind work tend to be addressed by examining the timing, order, and breadth of emerging competencies rather than examining the effects of context on social inference performance.

In this section, we review selected social-psychological findings on how context affects the performance of social inference, focusing on two sets of context considerations: intrapersonal and interpersonal. Although our emphasis is on contexts, we begin by reviewing cognitive and motivational intrapersonal mechanisms. These are the proximal factors through which distal social contexts have their consequences; examining them points the way toward important context issues. We then move on to consider factors such as interaction goals and audiences.

Intrapersonal Factors

Social-cognitive psychologists have identified a number of intrapersonal factors that influence how perceivers weigh evidence and make use of knowledge when making inferences about others. In particular, researchers have investigated how various cognitive and motivational factors promote the use of *heuristic* versus *systematic* inference processes (Chaiken, Liberman, and Eagly 1989; Chaiken and Trope 1999). In heuristic processing, perceivers reason in a "top down" fashion from existing knowledge, such as crude generalizations or stereotypes, to infer traits or other qualities of a target person. This is often seen as a default kind of inference that requires little effort. In systematic, "bottom-up" processing, perceivers weigh a wider range of evidence (e.g., situational determinants

of the target's behavior, or the target's stereotype-inconsistent behavior) before reaching a conclusion about the target. This is generally regarded as a more effortful process and sometimes seen as a "correction" of initial heuristic inferences. However, it would be wrong to equate the heuristic/systematic distinction with notions of theory use and theory non-use. Both kinds of inferences tend to rely on some kinds of theories. Systematic processing seems to imply that an individual uses a broader range of theories, building on a broader range of evidence. Heuristic processing might be seen as reliance on less nuanced inferences based on scant evidence and cruder theories.

Cognitive Factors Influencing Heuristic vs. Systematic Processing

The primary cognitive factor influencing the use of heuristic versus systematic processing in social inference is *cognitive load*—that is, the degree to which a perceiver's attentional resources have been usurped by other mental tasks. Heuristic processes, because they represent relatively simple inferences from pre-existing beliefs, require less attention and effort to perform than do systematic processes. Thus, relatively resource-intensive systematic processes are particularly susceptible to disruption under high cognitive load.

Much of the evidence on this topic comes from studies of attitude inference. Gilbert, Pelham, and Krull (1988), for instance, asked perceivers to infer a target's attitude with regard to a controversial political topic from a speech given by the target. Gilbert et al. found that cognitively loaded perceivers made stronger inferences about the target's attitudes and tended to ignore evidence about constraints on the target (i.e., alternative explanations for the act). Sapped of attentional resources, these "busy" perceivers were unable to perform the systematic processing necessary to temper their attitude inferences and instead relied on a less effortful heuristic that people's behavior accurately reflects their dispositions.[3]

Cognitive load has been shown to increase reliance on stereotypes, and discourage the use of systematic processing, in other social judgments as well. Pendry and Macrae (1994), for instance, asked participants to form impressions of a woman based on passages describing her behavior, some of which contradicted participants' gender stereotypes. As in the attribution work described above, participants in a high-cognitive-load condition

were less likely to "individuate" the target woman by considering her unique evidence. Cognitive load also appears to increase stereotypic information processing in other domains, such as age (Perry, Kulik, and Bourhis 1996) and race (Gordon and Anderson 1995).

Motivational Factors Influencing Heuristic vs. Systematic Processing

Motivation can affect the use of heuristic and systematic processes. A primary instance is accuracy motivation, the extent to which a perceiver is motivated to reach an accurate social judgment (Darke, Chaiken, Bohner, Einwiller, Erb, and Hazelwood 1998). Because they are insensitive to much of the information relevant to social inference, heuristic processes are more prone to error than systematic processes. Thus, accuracy-motivated perceivers should be more willing to expend the attention and effort required to perform social inference using systematic routes.

Various factors may increase or decrease perceivers' accuracy motivation. For instance, individuals high in need for cognitive closure may sacrifice an accurate inference for a quick and final one (Webster and Kruglanski 1994). Indeed, Dijksterhuis, van Knippenberg, Kruglanski, and Shaper (1996) found that participants high in "need for closure" were less willing to engage in the systematic process of attending to stereotype-inconsistent information when making inferences about properties of a group. In contrast, individuals high in "need for cognition," or the proclivity for elaborate information processing, tended to seek accurate inferences. Perceivers high in need for cognition do in fact expend more effort and engage in more systematic information processing than perceivers low in need for cognition (Cacioppo, Petty, and Morris 1983; Cacioppo and Petty 1982). Finally, "outcome dependency"—the extent to which the perceiver has a personal stake in reaching a correct inference—shapes accuracy motivation and helps determine which inference processes are employed. In studies of attribution (Vonk 1999) and stereotyping (Pendry and Macrae 1994), individuals who believe that they are in some way dependent on reaching a correct impression of a target (e.g., by the prospect of interacting with the target in the future) engage in more systematic processing and less heuristic thinking.

Intrapersonal factors such as cognitive load and motivation have a considerable impact on social judgment. Moreover, they draw attention to

contextual aspects that might affect them—e.g., which kinds of situations increase cognitive load, or which contextual aspects increase need for closure. Developmental psychologists concerned with the use of theory of mind would do well to consider these factors, both as potential experimental confounds and as real-world phenomena shaping social judgment.

Interpersonal Factors

Factors in the structure of social interactions, such as power relationships, status, and conversational roles, exert an important influence on social inference by virtue of their effect on the cognitive and motivational variables discussed above. Social psychologists have revealed a number of important considerations about the contexts of lay scientists.

Interaction Role and Goals

Gilbert, Pelham, and Krull (1988) suggest that perceivers who are actively engaged in social interaction ("active perceivers") are, by virtue of this role, more cognitively loaded than perceivers who merely observe another's behavior ("passive perceivers"). Thus, active perceivers should be more likely to engage in heuristic processing and less likely to engage in systematic processing than passive perceivers. Evidence for this come from a pair of studies by Gilbert, Jones, and Pelham (1987), who found that perceivers given the active role of influencing their interaction partner performed less situational discounting (a systematic process) and made stronger dispositional attributions (a heuristic process) than their partners. A host of other researchers have examined interaction goals and find a variety of effects on person perception (Hilton, Fiske, Snyder, and Nisbett 1998), particularly centered on questions of expectancy confirmation.

Power

Another influential factor in the structure of social interaction is the perceiver's power and status relationship with respect to the target. Defining power as the ability to control another's fate, Susan Fiske (1993) suggested that powerful individuals are led to perform more heuristic and less systematic processing than their subordinates. Individuals in positions of power (e.g., managers) have less of a personal stake in arriving at accurate impressions of their subordinates (e.g., employees, over whose

fates managers exert more control than vice versa). In contrast, subordinates are highly outcome dependent in their impressions of their superiors. As we noted earlier, outcome dependency promotes systematic processing, so it is natural to expect lack of power over targets to increase the amount of systematic processing in social inference.

Indeed, Fiske (ibid.) reviews evidence that people in positions of power stereotype their subordinates more than subordinates stereotype their superiors. Fiske further notes that the powerful are more likely to be in positions of responsibility, and have more people competing for their attention, than their subordinates, and thus are chronically cognitively loaded. In keeping with work in attribution and stereotyping suggesting that cognitive load curtails systematic information processing, Fiske presents evidence that the powerful are too attentionally overloaded to avoid making overly dispositional and stereotypical inferences about their subordinates.

Other researchers have accumulated evidence along the same lines. Snodgrass (1985, 1992), for instance, has shown in a variety of studies with participants assigned to leader (teacher, boss) roles or subordinate (student, employee) roles, high-status perceivers are variously less accurate than low-status perceivers in their judgments of the other's emotions.

It seems clear that immediate social situations can exert a strong influence on how others are judged, including how perceivers infer agents' mental states. Interpersonal factors such as role, power, and expectancy influence how social inference unfolds—and these interpersonal factors often have their effects through intrapersonal process factors such as cognitive load and motivation.

Audience

People share many of their social understandings with others. Indeed, people often reach social understandings, such as explanations and impressions, for the specific purpose of sharing them with an audience. Who these others are and what they want to know shapes these understandings—at least at the level of discourse, and perhaps at the deeper level of private construal. Hilton (1990) has stressed the effect of conversational processes on the form and the content of shared explanations. Explanations, in this view, obey Gricean norms, and so explainers strive for relevance, parsimony, and truthfulness. Such qualities are an interactive product of the perceiver's con-

strual of an event and the perceiver's construal of the audience's concerns and background knowledge. The extent to which such audience concerns intrude into private construals remains unresolved, but it seems clear that shared explanations are subject to the demands of an audience—an effect that should be of interest to any scholar concerned with how folk inferences are put to use in real life. For instance, recalling the earlier discussion of intentional and deontic stances, one could imagine explainers shifting stances depending on their perception of an audience's interest and background knowledge.

A Broader Context: Cultures Shape Folk Theories and Folk Theorizing

In recent years, theory-of-mind research has begun to consider the role of culture, in part drawing on ethnographic evidence to examine whether theory of mind is the same in all cultures. Both differences and similarities have emerged. Building on work by Wellman (1990, 1998) and Lillard (1998), we see cultures as sharing similar folk *framework* theories of belief-desire psychology but elaborating culturally distinct *specific* theories. Across cultures, most perceivers appear to share a basic set of assumptions and concerns (i.e., that others have mental lives; that guesses about others' mental states are useful in predicting action) but also differ in how certain concepts and relations are elaborated (e.g., different emotion categories).

Interestingly, a major theme of cultural difference emerges along the lines of one of the previous sections: some cultures view individuals as comparatively isolated agents (and make theory-of-mind judgments accordingly), whereas other cultures stress folk theories that embed persons in social contexts and focus on groups as agents. Cultures may also differ subtly in their concepts of intentionality and their epistemologies for inferring mental states.

Concepts of Group Agency

Emerging cultural research shows that perceivers in the East are more inclined to ascribe intentions, causality, and responsibility at the group level than perceivers in the West. This fits with various other psychological and ethnographic work and suggests an underlying Eastern folk psychology that grants a central role to groups. A launching point for this emerging work

is the question of whether the tendency to overattribute an act to personal dispositions (the "fundamental attribution error," described by Ichheiser, Jones, Ross, and others) is a product of individualism in North American culture. Various research reveals that this bias is less marked among perceivers in more collectivist East Asian cultures, and some scholars ascribe the difference to lay theories of individual behavior. Recently, researchers have turned to the question of whether lay theories concerning the behavior of groups also differ.

Ongoing research suggests that Confucian East Asian cultures regard groups as having stable properties that confer agency or autonomy on them. Some historical evidence for this is an emphasis on collective responsibility in traditional Chinese law. Starting from 746 B.C., the system of *yuan zuo* (holding offenders' superordinates, kinsmen, and neighbors responsible for their crime simply because they are related to the offenders) was widely practiced in China (Zhang 1984). The rationale underlying this practice was the belief that the would-be offender's in group had the obligation to monitor his or her behavior and therefore should have been able to prevent the crime. Such sentiment appears to continue today. Pursuing this notion, Morris (1993) asked American and Chinese survey respondents to predict whether particular groups would feel responsible after a negative outcome involving one of their members. As expected, Chinese respondents predicted more group feelings of responsibility.

In studies comparing judgments about groups made by East Asian and North American perceivers, a pattern of greater attribution by East Asians to dispositions of the group appears across a wide variety of particular cases (Chiu and Hong 1992; Morris 1993). In several studies relying on newspaper articles and surveys targeting at a range of events and outcomes (Menon, Morris, Chiu, and Hong 1999; Chiu, Morris, Hong, and Menon 2000), individual attributions were endorsed more by Americans and group attributions were endorsed more by Chinese. Menon et al. (1999, experiment 3) described negative outcomes (e.g., designing an unfair compensation system) as following the action of either an individual or group agent. Analyses focused on the extent to which internal stable factors (i.e., dispositions) were favored relative to other kinds of factors. Results showed an interaction effect of perceiver culture by kind of agent: American partici-

pants were more likely to endorse dispositional factors in the individual condition than the group condition, whereas Chinese participants were more likely to endorse dispositional factors in the group condition.

Another way to see the role of theories in interpretation is to contrast individuals identified as high versus low in need for closure, a dimension of cognitive style concerning the impulse to reach concrete conclusions quickly (Kruglanski 1996). High need for closure (NFC) is associated with greater reliance on stereotypes and other ready-made explanations to filter the facts of perception (Kruglanski 1996). In a striking result, Chiu et al. (2000) found that among North American participants NFC was associated with more dispositional attributions for individual acts and not associated with any particular type of attribution for group acts; among Hong Kong participants, however, NFC was not associated with any particular type of attribution for individual acts but was associated with dispositional attributions for group acts.

In sum, it appears that culture-specific theories guide the extension of folk psychology to groups. Group agency is a common notion in East Asian societies; it is less common in North American culture and also in developmental theory-of-mind research. This simultaneously suggests that cultural developmental work has the promise of revealing important cross-cultural differences in the content of folk theories and that certain forms of knowledge structures (i.e., defeasible, culturally driven theories) are involved in social inference.

Concepts of Intentionality and Mental States

Malle and Knobe's (1997a) work on the folk concept of "intentionality" shows that there is substantial agreement across perceivers on how acts can be arrayed in terms of their intentional nature. Grinding one's teeth, for instance, is consensually seen as less intentional than watering one's plants. Though this work has gone a long way toward revealing a crucial folk concept, the notion it documented may be culturally specific to the West in certain ways. Are there cultural differences in the seemingly basic idea of what is intentional?

A replication of Malle and Knobe's study in China and the United States (Ames and Fu 2000) showed that Eastern perceivers may view certain kinds

of pro-social acts in a somewhat different intentional light. Perceivers in both countries showed considerable agreement in intentionality judgments across a variety of acts, including watering plants and grinding teeth. However, there were notable differences for pro-social acts, such as "helping someone who dropped the papers" and "agreeing to go with friends to eat somewhere you didn't like." Americans viewed these acts as substantially more intentional: American respondents rated a set of pro-social acts as having roughly the same intentionality as studying late and refusing a salesman's offer whereas Chinese respondents rated the same acts as having roughly the intentionality of being infatuated with someone or believing oneself has the flu.[4] It seems appropriate to interpret this difference in light of Confucian notions of social obligation: politeness and helping may be seen as more of a choice in the West and as more of an obligation in the East. Chinese may thus adopt a more deontic, rather than intentional, stance in explaining certain behaviors.

How is it that we know what others are thinking, feeling, and wanting? Recent work suggests that mental-state epistemologies may differ by culture. Knowles and Ames (2000a) suggest that Western cultures stress a "norm of authenticity" such that a person's external actions and displays should be consistent with his or her internal attitudes. "Straight talk" is a sought-after quality in the West. Americans often seem obsessed with communication, honesty, and "saying what they mean and meaning what they say." Eastern cultures may view such displays as impolite and possibly bizarre. The role of hosts in many Asian countries, for instance, is to intuit a guest's unspoken needs, whereas guests are often expected to defer and not betray self-centered desires.

Knowles and Ames (2000a) have collected initial evidence documenting such an epistemic difference in the United States and China. (For a discussion of epistemology as a cultural construct, see Peng, Ames, and Knowles 2000.) When asked how important various pieces of evidence are in determining what someone is thinking, Americans, on average, rated "what they say" as considerably more important than "what they do not say"; Chinese showed the reverse preference. The same pattern held for determining what someone is feeling or wanting. Such evidence suggests that mental-state inference is bound up with cultural norms about actions and cultural epistemologies about evidence.

Conclusions

Consider the case of Jack and his new acquaintance Janet. He needs to decide if she will be a good roommate, and he is puzzling over her recent gift of a house plant, an act of apparent kindness. How does Jack infer Janet's desires and intent? How does Jack explain her action? How does he form an impression of her? These questions of intention inference, explanation, and impression formation are closely linked, and all are clearly issues of folk psychology. In this chapter, we have reviewed a variety of observations from social and cultural psychology that can guide scholars to describe how a lay scientist such as Jack might answer the questions outlined above. Jack is likely to consider Janet's group memberships, such as her ethnicity, her gender, and her profession—and he will recruit his impressions of the attitudes and intentions of those groups. Jack will also consider Janet's actions against a background of norms and prohibitions: was she obliged to give him the plant? Observers should consider Jack's context too: In what ways might his position give him power, and how might that affect his judgment?

Other contextual elements are also important: Jack's outcome dependency in the case of a roommate is high, which might lead him to deliberate carefully. Yet Jack might be chronically low in need for cognition, raising the possibility of a more flippant conclusion. Perhaps Jack is under extreme stress and cognitive load, which might yield a more crude, dispositional judgment about Janet. If Jack's judgments are formed in the context of sharing them with a particular audience, his understanding of the audience's background knowledge and concerns are crucial to understand his shared explanations. Finally, Jack and Janet's culture is important. A Western Jack might explain Janet's act by focusing on her as an individual and on what she says; an Eastern Jack might rely more on contexts or groups as explanatory devices and on her nonverbal behaviors. In sum, Jack's project of understanding Janet is a rich folk-psychological effort that demands the acknowledgement of perceiver, actor, and cultural contexts.

Work in developmental theory of mind and in a variety of other disciplines approaches the issue of social perception as a question of lay scientists' drawing inferences from their theories and from available evidence. The social-and cultural-psychology considerations reviewed here—as highlighted in the

case of Jack and Janet—help qualify and enrich the perceiver-as-scientist approach. By examining context issues related to targets, perceivers, and culture, scholarly models of perception become even more robust. It is worth noting that social and cultural psychology have not, by and large, embraced the theory-of-mind perspective in discussing social judgment. However, this appears to be changing (e.g., Malle 1999, this volume; Rosati et al, this volume; Kashima, McKintyre, and Clifford 1998)—and these disciplines have much to teach one another.

Insights and Aims

In contending that insights from social psychology may be valuable to developmental psychology and other disciplines, we are aware that the aims of research are often quite different. As we noted earlier, the theoretically relevant point for developmentalists is most often competence, not performance. However, it seems that the scholarship reviewed here, much of which focuses on performance, is valuable for developmentalists and others for a number of reasons. A first reason to attend to contextual factors relevant to children's behavior in inference tasks is the possibility that empirical evidence for competence or its absence may be misleading. Piaget, for instance, documented both kinds of errors in his conclusions about the unfolding of development. The evidence for competence, after all, is always a performance, and one performance can be confidently interpreted only against the background of other performances. Thus, understanding contextual variation in performance is in some sense necessary for understanding competence.

A second reason for attention to systematic contextual variation in performance is that findings can help distinguish between rival theories of development. For instance, the "theory-theory" account of development differs from accounts based on innate modules (Leslie 1994b; Fodor 1986) in that it predicts that children growing up in different cultures should acquire different theories. The evidence reviewed in this chapter suggests as much, as indicated by the differing mental-state epistemologies noted by Knowles and Ames (2000a). Predictions about effects of many more proximal contextual factors also differ between accounts based on theories and those based on empatic simulation (Goldman 1993, this volume). For rea-

sons that are well understood in the social-psychological literature, findings taken by simulation accounts as casting doubt on children's possession of theories may in fact merely point to contexts in which theories are relied on less. Indeed, it is more persuasive evidence for the theory-theory account if performance shifts as different conditions encourage perceivers to employ different knowledge structures in different ways. For instance, Ames's (2000a) work on the inference of group attitudes suggests that similarity theories govern when social projection is used.

A third reason for theory-of-mind developmentalists to incorporate insights from social psychology is a broadening of hypotheses about the content of children's theories. There may be many competences relevant to theories of development that have not been explored. For instance, some developmentalists have long suspected that young children understand collectivities or organizations. Lev Vygotsky, for one, argued that children cognize the mother-child organization before they cognize the self as individual. However, for a variety of reasons, developmentalists have conducted a massive number of studies on children's perceptions of individuals and comparatively few studies of their perceptions of groups. As we have shown here, groups differ in the way they are treated as intentional (Lickel et al. 1999), and cultures differ in the way they highlight groups as agents (Menon et al. 1999). Another underexplored area of competence is the development of similarity theories. As Ames (2000a) shows, beliefs about the similarity between oneself and a target person or group affect how social projection is employed in the inference of beliefs and desires; the developmental course of such similarity beliefs deserves attention.

In sum, the insights presented here are useful in pursuing the well-established aims of developmental theory-of-mind scholarship—that is, in exploring the development of competence. However, somewhat speculatively, we also suggest that developmental psychology may be ready for renewed attention to performance. Until children's competence was mapped, a science of performance was not possible. Yet the literature of social cognitive development has made so much progress in charting the rise in children's competence in the last decade that the time may be ripe for more research on performance. A systematic science of the conditions that moderate better or worse performance by children at a given level of competence might spawn useful theoretical insights. For example, how do

motivation, audience, and agent group membership affect children's inference of others' thoughts at different points in development? Performance also bears upon practical questions. Contextual factors that help children make good use of their theories are factors that educators would want to understand. Practical implications also go beyond the realm of the cognitive, in that good performance in social understanding is critical to social adjustment and integration.

Final Thoughts

In many ways, perceivers are like scientists. In our ordinary lives, all of us constantly form theory-driven conclusions from a jumble of data—and much of this can be appropriately described with semi-rational models of evidence and inference rules. Many disciplines, including developmental theory-of-mind research, game theory, philosophy, and jurisprudence, have pursued this very route. Our argument here has not been a rejection of this approach. Indeed, it is hard to imagine describing social sense making without a "lay scientist" metaphor. Rather, we have sought to show that these models can be enriched by a consideration of the social contexts of *target agents* and *perceivers*—and, further, by a consideration of the broader *cultural* contexts that surround and inform the folk-psychological process of social sense making.

Acknowledgments

Notes

1. "Theory of mind" is the collection of knowledge, often implicit, an ordinary perceiver possesses about the nature and working of minds. This is part of "folk psychology," the perceiver's broader set of folk beliefs about all things psychological. Many philosophers (e.g., Dennett (1987)) and developmentalists (e.g., Wellman (1990)) view these beliefs (sometimes called ordinary, intuitive, lay, or folk theories) as playing a major role in social understanding.

2. It is worth recalling that Heider's classic 1958 book was titled *The Psychology of Interpersonal Relations* rather than *The Psychology of Interpersonal Perception*.

3. Note that the alternative explanation is deontic: the actor was "obliged" to give a speech contrary to his attitude because someone else asked him to. Whether cognitive load interferes with deontic explanations in general remains to be seen.

4. This seems to be a case of differences in what acts qualify as intentional rather than of differing definitions of the term. The concept of "intentional" was explicitly described to participants as "there was a *reason* for the action and that [the people] *chose* to do so" (Malle and Knobe 1997a).