

Ethnopsychologies: Reply to Wellman (1998) and Gauvain (1998)

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Four main issues are considered in response to H. M. Wellman (1998) and M. Gauvain (1998): the relevance of adult data, the source of evidence for theories of mind, explaining development, and the proper focus of theory of mind research.

The main purpose of "Ethnopsychologies: Cultural Variations in Theories of Mind" (Lillard, 1998) was to describe and discuss variations in how people in different cultures conceptualize people, explain behaviors, parse the mental domain, and the like. In their very thought-provoking replies, Gauvain (1998) and Wellman (1998) have raised several issues that I examine and extend here.

Relevance of the Adult Data

From a cultural psychology perspective, Gauvain (1998) found evidence of folk psychological variations in adulthood to be of great import, whereas Wellman (1998), from a theory of mind perspective, argued that it has little bearing on the issues that drive the theory of mind enterprise. Here I discuss several reasons why this adult evidence is relevant. One *prima facie* reason is that the comparison evidence, characterizing the European American social science model of folk psychology, comprises a fair portion of the theory of mind literature. The literature rarely specifies when culturally specific versus universal understandings are under discussion, and the overriding sense is that universal ones are being probed. As Wellman admitted, even such seemingly fundamental notions as belief–desire–emotion psychology and the centrality of individual agency are culturally biased, but this is rarely noted. When European American folk psychological notions are discussed as if they were universal and then used as evidence for theories about human processes and development, then cross-cultural differences in such notions are certainly relevant.

A second reason this evidence is relevant to theory of mind concerns the mindreading process. In my article (Lillard, 1998), I argued that cross-cultural evidence from adults cannot lead to *definitive* claims in terms of development but that it certainly has implications for the process of mindreading. The major theories of development in the theory of mind domain are of course also theories about the process by which people read minds. The theory theory both specifies how the child develops a theory (development) and how children and adults use a theory (process). Simulation and innate module theories are largely

discussed with reference to child development; for example, simulation being related to pretend play (Harris, 1990), and a series of innate modules coming "on line" consecutively in the early years (Leslie, 1995). However, they are certainly also claims about the processes by which adults read minds. So the three major theories are about child development and adult process, although these two aspects can be addressed separately to an extent, as they were in the *Implications for the Mindreading Process* sections (Lillard, 1998). Although adults' beliefs might not bear directly on early development, variations in adult beliefs can be more or less consistent with the mindreading process.

Despite having only taken up the issue of relevance to process (Lillard, 1998), I do think the evidence is also important for developmentalists to consider. Whereas Gauvain (1998) thought that I did not discuss development enough, Wellman (1998) thought that I made too much of the adult evidence's relevance for development. (Other issues about development, aside from relevance, are raised later.) Elsewhere, I have argued that adult cross-cultural evidence suggests difficulties for developmental theories of mindreading, particularly for nativist theories (Lillard, 1997). For example, Fodor (1992) claimed that explaining the development of folk psychological concepts is easy: They are innate, and they do not develop. Such a claim does not reconcile with differences among adults.

Differences among adults do not necessarily present direct difficulties for the theory theory of development. Indeed, some theory theory proponents have described developmental processes that could be consistent with widespread adult variation. Gopnik (1996) used the analogy of Neurath's boat to describe how this works. One sets sail in a ship (a.k.a. in a theory of mind frame) and continually rebuilds that ship during the journey.

At any one point there may be only a limited and constrained set of alterations we can make to the boat to keep it seaworthy. In the end, however, we may end up with not a single plank or rivet from the original structure. (p. 170)

So the adults' theory of mind may be completely different from the child's theory. Still, as discussed later, the theory theory has appeared to focus more on physical evidence than on culture's contributions to this theory-building process.

So the theory theory can make sense of adult variation, and it is increasingly doing so. There are at least three reasons why adult variation is important to bear in mind when considering any developmental theory: (a) Culture is ubiquitous, (b) con-

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cepts are mutually embedded, and (c) the adult state must be explained by the theory.

The child's experience is culture laden from the start. Despite agreeing with this, Wellman (1998) claimed that the child has core understandings about other people that are insulated from culture. Yet, if culture affects the child from the beginning, why should certain parts of the child's emerging theoretical system be insulated from culture? Children learn language, mannerisms, rituals, and many other important aspects of culture very early; why should folk psychological understandings be any exception? Such insulation is actually more consistent with the premises of innate module theories (Fodor, 1983). Discussions of the theory theory include the possibility of an innate starting state for theory of mind, but I would venture that culture plays on those states from the "get go." There is probably no point at which a blind child's theory of perception is unaffected by being blind; likewise, a child who is born into a culture where desires are less likely to be fulfilled probably always has a different concept of desire than does a child born into a more indulgent culture.

This leads to the second reason this evidence is important: coherence. Regardless of which developmental process one adheres to, the results of these mindreading systems do take the form of a theory and a central feature of theories is that their concepts are mutually embedded or coherent. Desire is (at least in part) defined in terms of actions geared at obtaining what is desired, reactions of happiness or sadness, and so on. If children have folk psychological concepts early on and these early folk psychological concepts are at play in theories, then those concepts are also mutually embedded, defined in terms of other concepts. It follows, then, that if culture influences any of children's early folk psychological concepts, it must influence them all simply because the concepts are mutually defined.

The third reason that the cross-cultural evidence is relevant to development is that the theories must allow for how adult variation will someday appear. The theories have been devised with European American folk psychology in mind, but if one describes a universal process, one must show how it could also eventuate in different folk psychological understandings across cultures (as in Harris, 1995). For example, innate processor theories, like those of Baron-Cohen (1995) and of Leslie (1995), claim a brain module takes a behavior as input and outputs an intention. But the evidence suggests that in some cultures, people are as likely to compute (as output) the situational factors that led to the behavior and are ill disposed to consider others' intentions. How could such an adult state arise if mindreading is accomplished by innate and encapsulated processors? To the extent that the evidence is right, it is problematic for the theories. The theory theory can allow for development of culturally specific understandings in adulthood if culture is a supplier of explanatory constructs, but this source has gotten weak play in most writing on the theory theory.

For these three reasons (explaining development, ubiquitousness of culture, and mutual embeddedness), the adult evidence is relevant for developmental theories. Developmentalists should also be interested in such data for a fourth reason: Differences among adults can point to significant developmental processes. For example, if researchers did not know that adults from different language communities are sensitive to different phonetic boundaries, they would not have known to investigate the devel-

opment of categorical speech perception in children. Cross-cultural data might alert researchers to such interesting phenomena in the realm of folk psychologies as well.

The evidence suggests that different theories of mind exist in different cultures in several senses: different ontologies, different causal relations, and different meaning among mental state terms. Further elucidating what these differences are, characterizing them in terms of fundamental similarities and differences, and describing how developmental and cultural processes might arrive at them will all be important tasks in the future of the theory of mind endeavor.

Where the Evidence Comes From

Culture is acknowledged by both commentators (Gauvin, 1998; Wellman, 1998) as a force that offers up concepts to the child's developing theory. Although there have been hints of such acknowledgment in the theory theory literature, the bulk has been aimed at a different source of these concepts: "Children the world over may develop the same understandings because they are specified innately, or they may converge on the same conceptions because the crucial evidence is universally the same, and so are theory-formation capacities" (Gopnik & Wellman, 1994, p. 282). Gopnik (1993) stated that based on available evidence, in people's early lives they "invent" the idea of intentionality "to explain a wide variety of evidence" (p. 2). If they invent something, that suggests it comes from within, as compared, say, with "adopting" or "borrowing." Furthermore, against Dennett's (1987; see also Davidson, 1980) idea that folk psychology is only a stance one can adopt toward minds (vs. something about the way minds really are), Gopnik (1993) wrote that were folk psychology only a stance,

the process of acquiring those ideas would be less a process of knowledge construction than of enculturation. We would learn how to psychologize appropriately in much the way we learn to eat politely or dress appropriately. This may indeed be the case for certain sophisticated esthetic or emotional states [but not the core theory]. (p. 9)

The crucial issue is how much of folk psychology is the encapsulated product of theorizing within the child and how much is intertwined with what is given from the outside. How much is folk psychology like manners, resulting from culture's often capricious-seeming dictates, combined with the child's developmental level, and how much is it like Piagetian conservation?

Wellman (1998) took an example from the article (Lillard, 1998) that deserves further discussion here. I ask why, by the theory theory, one might postulate witches as being responsible for the starting of a fire, when European Americans, taking in the same physical evidence, would deduce that a man had been clumsy. The physical evidence alone should not lead to a construct of witches, but it could easily lead to clumsiness because one's own mental states serve as evidence for the theory. One might at some point have caused an unfortunate occurrence oneself when intending to do something else. This would happen all the more often in early childhood and qualifies as a basic understanding, not an esoteric one. One would theorize from that evidence that sometimes actual behaviors are not in line with intentions. On observing or hearing about a case where apparently someone was trying to see a vat of beer but actually

lit the roof on fire, one would understand it as a case of intention gone awry. So as the theory theory has been described, it is hard to see where concepts like witches come from in the first place. Such a concept could not come out of the physical evidence.

Wellman (1998) also argued that my view of the theory process is too empirical and realistic, but theory theorists have claimed the same folk psychological concepts are invented anew in each child because they are derived from essentially the same physical evidence. This begs the question of why imagined cultural constructs would ever be postulated for events for which one experiences psychological evidence. All these theories need to better account for that. But the important point is that until recently, the theory theory has given culture short shrift.

Despite this underemphasis, there have been hints of social influence in writings on the theory theory, particularly with regard to why at any point in history many scientists share the same theory. More recently and much more forcefully, Gopnik and Meltzoff (1997) wrote that "linguistic information is simply one more source of evidence, one more set of representations that the theory-formation system must deal with" (p. 209)—a view that certainly projects culture as an important force in the derivation of theoretical constructs. Culture works into the theory in two ways (Gopnik & Meltzoff, 1997): Different cultures supply different patterns of physical evidence (in some cultures, desire leads to action much more readily and often than it does in others), and they supply different theoretical constructs (desires, spirit forces) to explain those data. A theory theory that pays more heed to culture's supplying of evidence and explanatory constructs is certainly compatible with cultural variation. The theory theory is increasingly espousing this view, but culture is perhaps still underemphasized in assertions of a universal core. Such universality is hard to reconcile with the ubiquitousness of cultural influences from birth and the embeddedness of theoretical constructs.

An important task is to trace the development of folk psychological constructs over time, as has been done with European and American children but to do so in many cultures. Tardif and Wellman's (1997) investigating the natural language of Chinese children (following Bartsch & Wellman, 1995) is commendable. I do have one caution, however, regarding such a strategy—one I am sure those researchers share. Their strategy is to search transcripts of everyday speech for children's uses of focal terms like *think* and *want* (or their nearest translations) and then to examine how frequently and in what manner children use those terms. The problem is that this strategy discloses nothing about what other means children might use to explain behaviors. Maybe children are much more likely to use situational explanations; searching for belief and desire terms would not reveal that. However, every method has its problems. In the cultural domain particularly, multiple approaches are needed, and their results must be considered together.

Development

Whereas Wellman (1998) cautioned that the cross-cultural adult data are not relevant to development, Gauvain (1998) stressed that the evidence mandates closer consideration of the developmental process, and she explored what a model of developing a theory of mind would look like were it to take the

cross-cultural data into account. One example is Snow's (1984) portrayal of parents making babies' unintentional behaviors intentional, which might lead to babies seeing their own behaviors as intentional. For example, when a baby sneezes, a parent might treat it as an intentional communicative act. If, instead, a parent suggested to a baby that ghosts had caused the sneeze, the baby might indeed adopt that cultural construct instead. People certainly need to better attend to how culture influences what interpersonal understandings they arrive at.

Gauvain (1998) made an interesting point in suggesting that developmentalists in the theory of mind area go against the grain of developmental psychology: Children's understandings are normally thought to go from the specific to the general, but in this area the opposite is supposed. Children are claimed to go, for example, from a broad and universal notion of thinking to a culturally specific one. My sense is, instead, that in many areas of development, people see refinement with age. Children become better coordinated as they refine their motor skills. They become less likely to make overregularization and overextension errors in language. They hone in on the phonetic contrasts of their own language and lose the ability to make such contrasts in other languages. They become more adept at recognizing significant others. They go from looser, less refined, more generalized understandings and abilities to more specific and refined ones in many domains. The suppositions of theory of mind seem consistent with this: Children go from a rough idea of thinking to a one that is more fully reflective of their culture's beliefs.

If differences did not exist in folk psychologies, the developmental theorists' task would be easy: Biology would lead people everywhere to simulate the same psychological states, modules would result in the same states, or the same theories would be derived from essentially the same evidence. Given that differences do exist in folk psychological understanding, a myriad of interesting questions arise that apply to all the developmental theories. When do these differences first appear? Do certain types appear at certain times in development, so there is a stage when one begins to accept the possibility of supernatural powers of the mind, for example? Are there certain cultural types that appear in certain types of communities but not in others? How does one better explicate the process that Harris (1990, 1995) began to describe? These issues are central to all the major developmental theories.

Reality or Possibility as the Central Focus

The final issue I address here is what should be of concern. Wellman (1998) suggested that what is important is what people can do or can conceive of, not what they actually do or believe: "Even those who do not believe [in God/gods] can perfectly easily understand what a god might be. EAs [European Americans] . . . do so in large part . . . from within their folk psychology" (pp. 35–36). In contrast, I maintain that psychologists' interest should be in how people actually do construe others and in what people really do believe explains behaviors. Although I can make someone talk like a behaviorist by prompting them to tell me about reinforcing events, that does not mean the person truly is a behaviorist. The focal issue should not be whether one can entertain concepts like an omnipotent God and extrasensory perception but whether an omnipotent God or extrasensory perception is part of one's theory of how the world

works or what makes people behave certain ways. The search should not be for the folk psychological ideas one can only imagine but for those ideas that one actually believes in and uses.

Along these lines, more attention needs to be paid to the meaning of varying degrees of adherence to certain folk psychological notions. The data at this point appear to support the notion that everywhere people are mentalists. But this is clearly a matter of degree because in many cultures there is a taboo at least on discussing mental states. People simply do not know the extent to which such taboos operate in private, so that they do not think about others' mental states either. At the very least, when mental states are less frequently discussed, people are less primed to consider them. One wonders if as elaborate a theory of mind underlies the taboo or whether the theory is much less elaborate when one's culture does not freely and frequently discuss mental states. There are probably degrees of psychologicalness characterizing cultures; at what point in development are these manifested? Are three-year-olds everywhere equally apt to consider others' mental states, or does culture have an effect on this earlier? Do Balinese infants social reference just as American ones do? These questions concern what actually happens, not what one might conceive of, and they should be at the core of the theory of mind debate.

Conclusion

The adult data from other cultures are relevant not only to the process of mindreading as discussed in Lillard (1998) but also to the developmental process. All would agree that any theory of development will be vastly improved when researchers can track the development of specific concepts from infancy to maturity, showing how culture and maturation conspire. In describing the process of theory change, Gopnik and Wellman (1994) discussed how initially new evidence is rejected by a theory: "The initial reaction of a theory to counterevidence may be a kind of denial. The interpretive mechanism may treat the counterevidence as noise, as something not worth attending to" (p. 263). Later and perhaps concurrently, ad hoc auxiliary hypotheses are developed to account for the counterevidence. It is explained as a special case, something that occurs for good reason but is not really relevant to the issue at hand. Finally, the old theory collapses under the weight of the new evidence, and a viable alternative theory emerges. Perhaps denial of the adult cross-cultural evidence's relevance, and some emergent auxiliary hypotheses, like assertions of core theories early on are symptoms of the process of theory change in this area. However, as theory theorists have also described (Gopnik & Meltzoff, 1997; Gopnik & Wellman, 1992, 1994), sometimes counterevidence is rightly dismissed: It really is irrelevant. Time will tell.

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