

Human Development

Letters to the Editor

Does Emotion Rule Cognition?

At the outset of the behaviorist revolution, R.S. Woodworth [1918] wrote that psychology had first lost its soul, then its mind, and consciousness, too (and he did it in verse). Psychology began to get its mind back with the cognitive revolution, which promoted the idea that learning constituted a change in knowledge, not in behavior, that knowledge and expectations mediated between stimulus and response, and that how the person perceived the situation determined his or her behavior in that situation. The cognitive revolution was a good thing for psychology, but it set the stage for two other developments that were maybe not so good.

One, which Turiel [2010] discussed at length, has been the emergence of what I have come to think of as a 'People Are Stupid' school in psychology, which holds that people are fundamentally irrational: we don't think very hard about anything, and we let our emotions and motives get in the way of their cognition. We usually operate on 'automatic pilot': meaning that we don't pay too much attention to what is going on, or what we are doing, so that we are swayed by first impressions and other immediate responses. Our behavior is mostly unconscious, and our 'reasons' little more than post hoc rationalizations for our behavior. We don't know what we like or what we want, and we can't predict how we will feel about future events. And, just to put the cherry on the sundae, we're so stupid we don't realize how stupid we are. As Turiel noted, this point of view now seems to have captured the attention of a number of behavioral economists.

Although its sources are many and varied, stupidism seems to have arisen mostly out of social psychological work on errors and biases in social judgment – and, somewhat later, on the popularity of the concept of automaticity. But that cannot be the complete explanation. As Turiel [2010] noted, developmental psychologists have long based their theories on an analysis of children's errors, without ever arguing that children were stupid. Actually, some tinge of stupidism can be found in certain maturationist approaches to development. For example, the calculation of

IQ based on mental age does seem to imply that children are short, stupid adults. But ever since Piaget, the catchphrase for developmental psychology has been 'Babies are a lot smarter than we think'. Similarly, Kahneman and Tversky relied on evidence of errors to overthrow received ideas about rational choice, without ever slipping into stupidism – though, as Turiel correctly noted, some who followed them were not so careful. And cognitive psychologists, who were responsible for the concept of automaticity in the first place, never hopped on the automaticity juggernaut: instead, they assumed that experience, thought, and action were mediated by automatic and controlled processes acting in concert, and developed techniques for evaluating their separate effects [e.g., Jacoby, 1991].

In his editorial, Turiel [2010] pointed to another interesting turn of events, which is that the cognitive revolution seems to have spawned a kind of *affective counterrevolution*. While some cognitive psychologists define *cognition* broadly, to include all aspects of mental life, one unintended result of the cognitive revolution was to establish a kind of hegemony of cognition within psychology, in which the rest of mental life was virtually ignored. How else to explain the fact that every department of psychology in the world offers a vast panoply of separate courses covering sensation and perception, learning, memory, thinking, language, cognitive development, cognitive neuroscience, and even comparative cognition, but nothing even remotely comparable for emotion or motivation? Back in the 18th century, before there was a scientific psychology, Kant [1790/1928] had argued that knowledge, feeling, and desire were the three irreducible faculties of the mind. But following the lead of Schachter and Singer, many psychologists embraced cognitive evaluation accounts of emotion, which seemed to reduce affect to cognition: we don't actually *feel* happy or sad, we just *believe* we do. Frankly, psychology was due for a corrective, and I for one welcomed it.

But it is one thing to inject some warmth into an admittedly cold vision of human information processing, or to argue that some aspects of emotion are independent of cognition, perhaps even reflexive in nature, or to expand the curriculum to give due props to emotion and motivation. It is another thing entirely to replace the hegemony of the cognitive with a hegemony of the emotional – which is what sometimes seems to be happening today. Just as we didn't have a cognitive revolution only to find out that Skinner got it right the first time, we didn't evolve a neocortex so we could discover that it's not really necessary, it might even be harmful, and that the paleocortex of the limbic system [MacLean, 1990] will do us just fine.

In his editorial, Turiel [2010] rightly bemoaned these developments within psychology, as well as the proliferation of these ideas in the popular press – where, if we are not careful, they will get the same grip on the culture that Freudian psychoanalysis had for much of the 20th century (and to the same woeful effect). But he's not arguing a revanchist position, seeking to reclaim cognitivist territory lost to some intuitivist-affectivist coalition. Rather, as I read him, he's arguing for

a balanced view of mind and behavior, in which cognition and emotion, conscious and unconscious processes, deliberation and intuition, all get their rightful place. It's probably the only way that psychology can get its soul back.

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Reasoning: It's Not All in the Head

The trends in psychology that Elliot Turiel [2010] criticized in his editorial, 'Snap judgments', have also made their mark in moral and political philosophy. The projects of understanding, analyzing, and trying to improve our reasoning about moral and political matters are criticized as naively ignoring new scientific evidence about how the human brain works, evidence that purports to show that the phenomenology of reasoning is all just a smoke screen hiding from view a set of more or less determined practices rooted in our emotional or instinctual response mechanisms. The aversion to scientific evidence, whether in the form of traditional psychological experiments or fMRI scans, has tended to enter the philosophical discussion only on one side, however. It might seem as if skeptics about reasoning have the unanimous backing of psychology and cognitive science. And so Turiel's defense of cognitivism in psychology comes as a particularly welcome reminder that philosophers who still find thinking about practical reasoning useful have allies in the behavioral sciences.

By way of returning the favor that Turiel's [2010] editorial offers philosophers, I would like to offer back to psychologists some (perhaps familiar) conceptual distinctions that may help to put the 'People Are Stupid' school of psychology in its proper place. For more than the other main terms in the psychological and philosophical lexicon, *reason* and its various derivatives (*reasoning*, *reasons*, *rational*, *reasonable*) are multivocal. Consequently, when we talk about reasoning, it is easy to talk past one another.

First, then, let me suggest distinguishing between *reason* (or *Reason*) as what in the 18th century was called a *faculty*, and *reasoning* as an activity. It is common to define the activity of reasoning as that which the faculty of Reason does, and so to think that one has to characterize or locate the faculty in order to know anything about the activity, and even to know whether some activity is properly a form of reasoning. So understood, reasoning is the activity that Reason engages in to produce such things as beliefs and intentions. Thus, reasoning is to be distinguished from other routes to beliefs, intentions, and choices, such as those produced by emotion or instinct.

But we might also try to understand the activity of reasoning without reference to the mental structures that yield it, as a norm-governed practice. Reasoning is then more like baseball or conversation than like sight or hearing. If we want to know whether human beings play baseball, it makes no sense to scan their brains or set up laboratory experiments to find out the effects on hand-eye coordination of various influencing factors. We need rather to compare the rules of the game with what groups of people do on fields when they claim to be playing baseball. Similarly, if we think of reasoning as an activity with its own characteristic norms, then the question to ask is not (or not only) which neurons light up when people engage in the activity, but what differentiates reasoning from other activities, and is reasoning, so described, an activity that we manage to actually engage in. It may turn out that the skeptics are right in one sense, and that we do not reason as well or as often as we think – that we defer and command and make snap judgments and rely on prejudices and habits of thought without fully realizing it. But on this conception of reasoning, these failures are failures to follow certain norms, not, in the first instance, failures to use particular parts of our brains. Of course, it may turn out that the causal explanation for the former might be lodged in the latter. My point here is that this connection will not be a conceptual one. Perhaps the full use of our emotional processing networks leads us to follow the norms of reasoning as well as or better than the failure to use those networks. Perhaps they do not. But these are the questions that a focus on reasoning as an activity lead us to ask. My point thus is not to undermine the scientific evidence that our brains work as Turiel [2010] claims they do (though it does seem as if the issue is not as clear-cut as some in the popular press and in philosophy would have us believe [Klein, in press]). It is rather to point out that such scientific evidence cannot speak directly to the question we might most want to be asking.

Switching from thinking about the faculty of reason to thinking about the activity of reasoning gets us away from a conceptual frame where reason and emotion are opposed to one another, but it still leaves room for a different kind of confusion, one which concerns whether humans are (fully) rational or not. The claim that humans are not as rational as we like to believe can be made in terms of faculties: we are controlled by faculties other than reason. But it can also be made in the language of reasoning: we fail to live up to the norms of that activity. And so it can help to further distinguish two broad pictures of what the activity of reasoning is. On the first picture, reasoning is an activity that is basically calculative in form: a method for making decisions and forming beliefs, and so the justification of various norms governing the activity is that following them produces the right answers. When psychologists or philosophers observe a decision-making process and criticize it as irrational, they are most often claiming that it fails systematically to yield the right answer. Reasoning is, so understood, a method rather than an activity in its own right. Note that adopting this picture requires also having a story to tell about what the right answers are, and the difficulty of telling this story well is easy to overlook. Is it irrational to act in ways that are richly emotionally responsive to those around us but fail to maximize our utility or profit or happiness or life expectancy? Is it irrational to be moral if it costs you what else you value? Is it rational to suffer evil in order to avoid doing evil? If knowing the 'right' answers to what rationality would produce were easy, then these questions would also be easy.

But it is also worth noting that this picture is not the only one we use to think about reasoning. Sometimes, when we characterize an activity as reasoning we want to highlight something about its responsiveness, both to evidence and to others with whom the activity is entered. Here, for instance, it helps to distinguish reasoning with someone from commanding them or blindly obeying them, or from manipulating them or failing to heed their point of view. Reasoning, so conceived, may be a fundamentally social activity, something that, like playing baseball or conversing, we do with others. And it may be an activity that is not always goal-directed (for a fuller elaboration of such a picture of reasoning, see Laden [in preparation]). That is, thinking about whether someone is reasoning well, or, as we might say, being reasonable, will not involve comparing where they end up with some external measuring rod, but rather looking at the quality of their interaction. Asking whether someone is reasonable is more like asking if she is a good conversationalist or a good baseball player than if she is an effective profit-maximizer, and thus the kind of evidence we need will also be very different. Note, for instance, that while there may be many proxies that we might use to answer these questions – how many friends someone has, her statistics, and the record of her team – these are necessarily imperfect measurements of what interests us. To get at the basic question, we would have to watch her in a variety of conversations or watch her play a lot of baseball.

Third, conceiving of reasoning as a norm-governed activity also brings to light that reason and rationality and reasonableness are importantly normative concepts in the sense that philosophers use that term. That is, they sketch out ideals that we can or should live up to, rather than picking out features of our world that are already there. To describe someone's thought process or interactions as rational or reasonable is to describe them as successful in some sense, rather than to describe them as belonging to a certain descriptive category. It is to say something which has the form of saying that an action would be kind or courageous or wise, rather than saying it would be physical or loud or produced by this set of biological mechanisms. We may disagree about the norms that govern reasoning, and we may disagree about, given some description of those norms, whether or how regularly we live up to them, but these are already questions that lead us back to the psychological terrain from which Turiel writes: one that takes seriously the place of reasoning and thought in human life.

Finally, to bring this discussion back to the issue of development, note that if reasoning is a norm-governed activity, one that we can do with more or less skill, then it is presumably not something that is fully hard-wired into our brain, but something we must and hopefully do learn. This means not only that developmentalists are well-placed to continually remind their colleagues in both psychology and philosophy of the conceptual points I have made above, but that furthermore, it may very well be that it is through studying human development that we will best be able to adequately describe many of the complexities and nuances of the norms of reasoning. The norms of reasoning, so understood, are not written in the metaphysical fabric of the universe or the neural fabric of the human brain. They are not revealed in our snap judgments, but in our ability to think again. At least on the picture I have been sketching here, they are inscribed in our interactive practices, and the paths by which we are initiated into them.

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Hasty Feelings and a Few Thoughts Concerning Turiel's Lament

I welcome Elliot Turiel's [2010] lament over the return of antirationalism among many psychologists and appreciate his disquiet that reasoning, thought, and choice are no longer viewed as essential or definitive aspects of human nature. I welcome his skepticism concerning the overuse of the (antirationalist) principle of sentimental projection, which holds that values and morally relevant beliefs are conditioned on feelings or upon modes of sensory experience that are free of conceptual thought. If I understand the corpus of Turiel's work correctly, he accepts, as I do, that acting morally (doing the right or good thing) may be motivated by fears, indignations, and distastes of one sort or another, but would argue nevertheless that the causal system works the other way around: the feelings that motivate moral action (including feelings produced rapidly and without calculation, deliberation, or conscious reflection) are conditioned on values and beliefs, and those values and beliefs are not only available for conceptual analysis and rational critique but are definitive features of any action, reaction, or judgment that is entitled to be called moral.¹ I also share with Turiel the view that there is something troubling about the particular way feelings, intuition², and Darwin have returned to the forefront in moral psychology and into the frontal lobes of journalists at the New York Times and other media outlets.

The antirationalists argue as follows: that the everyday experience of value (and disvalue) amounts to little more than a projection of sentiment; hence, the (subjective) feeling (for example, of nausea or unpleasant sensations) explains the everyday judgment that something is truly immoral, bad, harmful, cruel, disloyal, cowardly, or shameful. According to this formulation, the everyday experience of value (and disvalue) is best understood exclusively by reference to the feelings (for example, of pleasure and displeasure) experienced when contemplating or witnessing an action or event, and, according to the antirationalists, that experience is best explained by reference to the functional evolutionary contribution of those feelings to the survival of human groups. Although the proximal causal mechanism linking stimulus to response in this formulation is still pretty mysterious, the literature abounds in analogies to color perception, where the human experience of qualities such as red or green is often described as the product of an innately given and automatic subjective projection system that results in the (illusory) experience of a world that seems truly colored in its own right. A major challenge for any scrupulous antirationalist is to actually identify the stimulus event deterministically causing the everyday experience of value. This

¹ I suspect that Turiel would also accept, as I do, that feelings or sensations produced by sensory inputs alone sometimes spread to influence the experience of value. This is noteworthy where and when it occurs and it is a process human beings have long been cautioned to guard against when making moral judgments, but it is hardly solid grounds for arguing that the experience of value is nothing more than a projection of one's feelings.

² Elliot Turiel, Nancy Much, and I wrote an essay many years ago [Shweder, Turiel, & Much, 1981] examining the variety of ways that moral intuitions might be interpreted and explained from a cognitive point of view.

is a challenge because if values exist only as projections of our feelings then the stimulus events causing those feelings must be described in a language that in no way implicates the prior or independent existence of values (by which I mean meritorious qualities deserving of our respect).

An instructive sign of the times (selected here as a concrete example of what Elliot Turiel is reacting against) is the full-page advertisement sponsored by the John Templeton Foundation titled 'Does Moral Action Depend on Reasoning?', which recently appeared in the Times Literary Supplement (June 4, 2010, p. 5). 'Not really' is the first answer on the page, given by the neuroscientist Michael Gazzaniga [2010] in this prominently advertised expression of antirationalism. He opines as follows:

'What if most humans, regardless of their culture or religious beliefs or age or sex, chose the same option when faced with a moral conflict? What if those same people gave wildly different reasons for why they made their particular choices? This in fact is the state of affairs for much of our moral behavior. Recent research into human brain science and ancillary fields has shown that multiple factors feed into the largely automatic and deterministic processes that drive our moral decisions.' (p. 1)

This is not the place to assess the rational merit of Michael Gazzaniga's formulation of what drives moral decisions, and in any case any attempt at critical reasoning on my part would presumably be inconsistent with the claims of his type of antirationalism. If one actually undertook such a critique, one might begin by asking: is there really an intelligible meaning that can be given to the very notion of a *moral conflict* by an antirationalist? The very notion of a moral conflict implies some type of choice available to an agent with a mind. It may even imply that regardless of which option is selected by the moral decision maker, some recognizable objective good must and will be sacrificed by the act of choice and that faced with a genuine moral conflict you are damned if you do and damned if you don't (for otherwise the objective situation would not be one of moral conflict, but rather one of subjective uncertainty about what was the truly right thing to do). In any case, what is an antirationalist (see Gazzaniga [2010]) doing using the language of *choice* and *moral conflict* when in fact he believes that a moral response to a stimulus is sort of like responding with tears when soap bubbles get in one's eyes and is so causally deterministic that everyone regardless of demographic category responds in the same way? Is this coherent? Or one might continue the critique by asking: why in the world should we find it unfathomable, as Gazzaniga apparently does, that different people might respond in the same way – for example, oppose capital punishment – motivated by different (good or bad) reasons for their common response? Or perhaps one might even ask: what reasonable sample of evidence on the moral responses of peoples across and within societies would ever lead one to the conclusion that moral valuations tend to converge rather than diverge over time or space? I point to Gazzaniga's answer to the question 'Does moral action depend on reasoning?' only because his 'Not really' response helps us

understand Elliot Turiel's [2010] lament: *whatever happened to the cognitive revolution?* It also helps us comprehend why (quite remarkably) Elliot Turiel finds it necessary at this particular point in his discipline's history to remind psychologists that there is far more to the description and explanation of human behavior than the identification of some objective environmental event and the innate or prepared (neurological) 'wiring diagram' [Turiel, 2010, p. 107] connecting the stimulus and the response.

Turiel himself has long been for a different type of approach. He has investigated the experience of value by examining human understandings of the moral qualities connected to actions and events. His interest in ontogenetic change has led him to study the ways children and adults in different cultural and religious traditions experience actions and events as a measure of, a means to, or as productive of, some ultimate or basic good (like justice). By an ultimate or basic good I mean some quality whose value or merit requires no further justification or explanation once it is understood and is so axiomatic and self-evident to those who understand the good that it counts as an indefinable, a priori, or so-called intuitive foundation for moral experience. It is important to recognize that it is not necessarily antirational to be dumbfounded when asked to define something that is ultimate or basic and thus indefinable. *Dumbfounding* (discovering that there is nothing more that can or needs to be said about the matter) occurs at the foundations of all systems of understanding; it occurs when one meets up with concepts and meanings that are so basic to a system of understanding as to be axiomatic. There may well be discretion in one's choice of axioms and one may even feel emotionally attached and have one's sense of self and identity tied up with one particular system of understanding rather than some other. Nevertheless, axioms are not feelings and being inarticulate about basic concepts is not the same as being antirational. So-called dumbfounding is certainly not evidence that one has grounded one's valuations in feelings.

Nor is speed of processing (the snap judgment or the hasty feeling) a reliable measure of the absence of cognitive and conceptual processes in the shaping and regulation of an action or a response. Articulated meaningful speech (routine ordinary conversation) between speakers of any language is produced and interpreted (just flows effortlessly between mouth and ear) without planning and self-conscious deliberation (i.e., it proceeds intuitively) yet involves classification and reasoning (including the application of a rich and language-specific array of grammatical, semantic, and pragmatic principles) at speeds that rival any aesthetic or sensory response. *How do I know what I think until I hear what I say* is a humorous slogan that captures the phenomenal side of that linguistic production and comprehension process. Speakers of a language who are asked to be explicit about how they do all that work of rapidly producing meaningful articulations and effortlessly comprehending the meaning of what other people say may indeed *tell more than they know* (their theories of how their own language production and comprehension actually works are typically

speculative and often false) but that hardly addresses the issues of whether they also truly *know more than they have told* and whether what they know (and make use of at lightning speeds) is cognitive and conceptual in nature. Moral cognition is by its nature a matter of assessing the value of actions and events so as to produce the experience of the presence or absence of merit. The fact that the experience of value can be unconsciously and rapidly produced is hardly evidence that the production process is not cognitive or that it is merely a matter of projecting one's sentiments and then disguising that emotive process with some post hoc rationalizations.

What response is merited on my part by that action or event? is the central question implicit in the human experience of value.³ Notably, the everyday human experience of value is a subjective state that has a normative component inherent in its phenomenology; for the experience presents itself to oneself as a valid or merited response to (or judgment about) some action or event. It is a subjective state that claims to be about something objective and real that explains the subjective experience and is more than just the projection of sentiment. As the philosopher Arthur Lovejoy [1961] once described this phenomenology, when someone says 'it is wrong to oppress the helpless' or 'the conduct of Adolph Hitler was wicked' they 'do not in fact conceive of themselves merely to be reporting on the state of their own emotions' (p. 253) and mean to be saying something more than 'I am very unpleasantly affected when I think of it' (p. 255).⁴ In keeping with the spirit of this phenomenology and acknowledging the legitimacy and importance of its central question, moral education, broadly conceived, has been viewed by rationalists over the centuries as a process of belief acquisition and value concept activation.

Given that the study of human moral psychology is the description and explanation of the human experience of value as expressed or revealed in verbal and nonverbal behavior, it is only rational to acknowledge that not all human valuation is moral evaluation. To experience something as ugly or as clumsy is not the same as experiencing it as bad, cruel, shameful, or cowardly, and moral development consists, in part, in keeping straight the distinction between things that ought to be kept separate; in knowing, for example, the difference between witnessing something that is gracefully done or produces sensory pleasure and something that merits your moral approval; in knowing the difference between something that nauseates you and something that is truly morally wrong. Indeed, I would propose that one measure of moral development (especially for people

³ This is a significant point of difference between the human experience of color perception (where normative questions in this sense do not arise) and the human experience of value (where normative questions are at the heart of the experience).

⁴ No doubt this phenomenology is philosophically challenging (*metaphysically queer* is the contemporary argot among some philosophers). The antirationalists systematically beg the central question inherent in the human experience of value because they think the phenomenology of everyday moral psychology is erroneous or illusory from the start, which means that, for the antirationalists, questions such as 'what is truly meritorious?' or 'what are morally valid reasons for action?' do not even arise in their studies of moral psychology. Not surprisingly, Elliot Turiel experiences this type of return to antirationalism as an academic dark age.

desiring to live peacefully with one another in the face of real multicultural differences) is the cultivation of the ability to recognize that just because something happens to disgust you does not mean it must be wicked, harmful, or morally wrong.

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Pointing: Some Thoughts on Functions and Cultural Influences

In their paper, Carpendale and Carpendale [2010] tried to answer the question 'how and when do infants come to use ... [pointing gestures] for social purposes' (p. 112). They discussed two competing hypotheses – one that pointing as a social gesture develops through social shaping, and the other that pointing is a result of an understanding that others are intentional agents. These two hypotheses are the two main ones in the field at present.

They based their own empirical study on the observation and diary notations the second author kept of her own child. They described how the child initially used the gesture to orient himself towards distant targets before he started using pointing socially. They interpreted the child's development of using pointing as a social gesture which does not require an understanding of the adults as intentional agents. Rather, it was interpreted as based on an increased understanding by the child of the gesture's meaning for the parents.

The authors chose a phenomenological starting point for their study. They noted early uses of index finger exploration and index finger extensions in nonsocial situations. It is interesting to

note that the function of the child's point seems to broaden or become more differentiated with the shift from pointing for oneself and pointing for others. While the authors interpreted the child's original use of the pointing gestures as 'linked to his personal directedness toward aspects of the world' [Carpendale & Carpendale, 2010, p. 118], from the start the social points the child makes seem to be simultaneously protoimperative (i.e., requesting) and protodeclarative (i.e., orienting others towards aspects of the world). It would be interesting to see the developmental trajectories of these two (and possibly several other) different meanings. I assume that these communicative intentions did not appear after the child started pointing but that they developed earlier on and pointing was transformed into a means of communicating them. It would be interesting to add observations of other child behaviors serving the same purpose. That is: which behaviors does the child use to communicate these meanings before starting to use pointing and how do they become transformed into pointing and why?

Their diary method is interesting and adds a valuable developmental perspective to experimental studies that focus on other aspects of pointing, for instance the social influence on the production of pointing by studying children whose parents report that their children point already [e.g., Liskowski, Carpenter, Henning, Striano, & Tomasello, 2004].

I am looking forward to the authors' inclusion of more cases. This will enable them to identify similarities in the developmental patterns (in spite of their claim that 'each parent-infant dyad may develop its own repertoires of interactive patterns' [Carpendale & Carpendale, 2010, p. 123]). Although undoubtedly there are many interindividual differences between caregivers, there are also similarities, which become particularly striking when comparing across cultural groups. For instance, the time infants spend being held by a caregiver and the time they spend alone differs dramatically [e.g., Hewlett & Lamb, 2002]. While infants in some cultural communities are in the presence of others and touched almost constantly, infants in other cultural communities (like the one of the participating family) spend approximately 25% of their time on their own. We also know that anticipating the infants' needs is an explicit ideal in many cultural communities [e.g., Keller, Voelker, & Yovsi, 2005]. This would suggest different ways of organizing attention and requests and therefore the need for and intention of pointing.

There similarly are cultural variations in social norms regarding eye contact and looking at others which could in turn lead to differences in the development of pointing. For example, Carpendale and Carpendale [2010] claimed that some of the pointing was not social even though the child's parents were there and reacted to the point as a social signal. The claim that the child's action was not social is based on the observation that he was looking at the object he was pointing at and not at the interactional partner. Looking at a social partner is a norm in a specific cultural learning environment, and something that the child has to learn for successful communication. However, gazing at another person is not necessarily a universal. It is considered appropriate and

polite in some cultural communities to avoid eye contact. In fact, there has been some criticism of the focus on gaze in understanding infant social cognition, in part, for this reason [Akhtar & Gernsbacher, 2008].

The authors' use of the diary method is a fruitful approach to studying the development of pointing in infants. Their contention that pointing in their case study developed as a social gesture which does not require an understanding of adults as intentional agents is an important proposal. In the long term, I would like to see it expanded to include more behaviors and more diverse families to understand the factors influencing the development and usage of pointing in more detail.

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