Letters to the Editor

The Biology of Morality: Extending the Discussion

The "What" and "How" of Morality

The letters by Greene and Blair responding to Killen and Smetana’s editorial on “The Biology of Morality” give contributors to the field of moral psychology a good deal to think about. The following reflects some (but certainly not all) of my own thoughts, particularly after reading Joshua Greene’s letter. I will address two general issues arising from Dr. Greene’s work: the first concerning the kinds of questions that are competing for attention in moral psychology, and the second concerning the reduction of morality to biological processes.

Dr. Greene and other like-minded neuroscientists [e.g., Hauser, 2006] suggest in their work a potential roadmap for navigating the age-old polemic in moral philosophy between Kant’s rationalism and Hume’s empiricism. Although it may seem peculiar that neuroscience has fallen into this moderating role, this is an ambitious and exciting project for Greene and others. Nevertheless, I share some of Killen and Smetana’s hesitancy about the path ahead. As I see it, two very different kinds of questions about morality are on a collision course here. The first deals with the conceptual issue of “what is morality?” The second concerns the functional question of “how does morality operate?” Both kinds of questions, I would argue, are open to scientific inquiry and the kind of methodological rigor we see used in psychological research. In the case of the first “what” question, we see the application of this empirical rigor in the “social domains” research described by Killen and Smetana. Similarly, in the case of the second “how” question, Greene and other neuroscientists can be credited with recruiting rigorous, state-of-the-art brain imaging techniques. There is value to be acknowledged in both lines of research. Tension, however, begins to mount when the “what” and “how” questions are conflated. In particular, I would urge that learning what areas of the brain are activated in persons’ responses to moral dilemmas may allow us to describe how morality operates – particularly some of the biological pre-conditions necessary for its emergence – but NOT what morality fundamentally is, as I sense Dr. Greene and others want to do.

Keeping these questions distinct will not only fend off potential collisions, but they also suggest another important distinction between biological and social phenomena. Notwithstanding the value
of recent neuroscience discoveries, implicit in much of this work is the assumption that morality can operate as an independent “object” or “entity” apart from the interpersonal relations that constitute it. That is, there seems to be a strong desire among neuroscientists to strip away all the messy interpersonal or social aspects of morality and lay bare what morality really is. For Dr. Greene, this means attempting to discover the foundational structures of morality in the brain. As compelling as this approach may be to some, I would argue that it neglects, if not entirely removes, the most critical element of morality: people.\(^2\) Of course, brains are part of people (even perhaps an essential part), but hoping to discover the foundations of morality in people’s brains is akin to imagining that researchers can learn the fundamentals of baseball, another interpersonal process, by simply dissecting players’ hands. The social phenomenon of baseball, just as the interpersonal nature of morality, is lost in its reduction to a non-social process. No matter how often, then, we may hear the terms “social brain” or “moral brain” in contemporary psychological parlance, the brain by itself can not capture social phenomena or other interpersonal processes like morality. Does this mean that social and biological approaches to studying human moral behavior are mutually exclusive? No, only that a good deal of work remains in the psychological sciences, both conceptually and empirically, to address yet another kind of “how” question: How do biological and social explanations of morality relate to one another? To answer this, further exchanges like these between Killen, Smetana, Greene, and others will be necessary.

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Footnotes
\(^1\) I owe this formulation to the graduate students and faculty members who participated in a discussion group on the topic of moral neuroscience at Simon Fraser University. I have found these discussions invaluable in developing my own position on this topic, and hope this continuing exchange in *Human Development* will do the same.

\(^2\) This point is derived in part from Bennett and Hacker’s [2003, p. 73] discussion of the “mereological fallacy” – a pervasive problem in the neurosciences, as well as psychology, in which characteristics of a “whole” are mistakenly ascribed to one of its “parts.”

References


First, let me start with a basic point of agreement with Killen and Smetana: reasoning is a very different process when compared with making a decision. However, it could be argued that making a decision may be based on, and has its foundation in, reasoning processes. Thus, making a decision regarding which switch to push in the face of the “Trolley Car Dilemma” or the “Footbridge Dilemma” could, at least in principle, be grounded in the same internal dialogues that result in responses in structured and unstructured interviews on moral dilemmas, with children and/or adults, in more or less artificial contexts. Nevertheless, having access to recordings or transcripts that convey insights into the weighing of the pros and cons when faced with moral dilemmas are qualitatively different from evidence that shows that different areas of the brain are activated. Still, the question remains which quality is more telling – the verbal or the visual? Although it seems that visual data are more empirical – if not factual – I still would like to maintain that the verbal data are more telling.

Having said this, let me follow up with a point of disagreement with Killen and Smetana: While there is no reason to base moral behavior on a moral faculty or a moral organ, there also seems to me no reason either to base moral behavior on moral reasoning. Both strands of argumentation follow the same rationalist principles (although the former claims to be more empiricist – which does not necessarily form a contradiction). Reasoning is a form of accounting. It does not necessarily have to be retrospective, as in explanations of past actions or gossiping [Haidt, 2007]. Most often it happens on-line, as stake inoculation, attempting to preempt a turn in the conversational business at hand. It is in those situations that speakers use language to manage interactional business and in these processes take positions – positions vis-à-vis moral and ideological discourses that are conventionalized and impregnated with what traditionally is called “self-interest.” The way these positions are indexed demonstrates that they are part of conventionalized discursive repertoires, spontaneous and unreflective. Taking these positioning processes out of their everyday discursive contexts and subjecting them to laboratory or interview situations does two things. First, they become afflicted with a degree of reflection and rationalization that strips off their original action potential. Second, it disables any personal involvement and turns the given scenarios into abstract and decontextualized problem solving situations – detached from personal experience and locally shared community values. Attempts to use scenarios or narratives that appear to maintain some resemblance to real-life situations still result in detachments from personal action orientations and contribute to reifications.

Overall, in order to revive and reinvigorate research on morality that is relevant to moral behavior, I see no reason to constrain morality neither to the realm of reflection such as in artificial problem-solving situations (e.g., the “Trolley Car Dilemma”) nor to reasoning interviews vis-à-vis artificial scenarios. A first step is to take morality out of the grip of reflection and bring it back where it is at home – in the realm of interactive processes and how these become negotiated in our everyday practical lives. As a result, I am convinced that the narrow definition of morality as a
domain that contrasts with conventions and self-interest, because it rests on reasoning as reflection and not as practical accounting, will no longer be necessary.

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**References**

**Killen and Smetana Reply**

*Morality is destiny: How you define it matters*

We share Blair’s position (as stated in his letter) that definitions of morality matter and that without such definitions, the field of morality is unlikely to advance. Without an exchange between moral developmentalists and moral neuroscientists regarding definitions of constructs, we are likely to spin our wheels and dig deeper into confusion. Shared terminology and definitions are essential for determining the nature of a phenomenon and for creating measurements that are reliable, valid, and commensurable. We suspect that Greene agrees with us on the fruitfulness of interaction between disciplines, given his own multidisciplinary training in philosophy, psychology, and neuroscience, and thus we look forward to sharing epistemological definitions and assessments of morality as the field advances. We take issue, though, with Greene’s view (as expressed in his letter) that biologists are not concerned with definitions of life. In fact, biologists are extremely concerned with definitions, as we have heard from expert witnesses testifying about biological evidence in the court cases challenging evolution as a theory in US textbooks.

We recognize that morality encompasses more than rationality, judgment, and reasoning as demonstrated in our recently edited *Handbook of Moral Development* [Killen & Smetana, 2006]. In preparing the handbook, we solicited contributions on moral emotions, moral discourse, and moral behavior as well as the biological, cultural, and comparative bases of morality; we believe that it is fruitful to study the many dimensions of morality. In fact, our plans for updating the volume include soliciting contributions that reflect exciting new developments in moral neuroscience, morality and theory of mind, and the origins of morality in infancy, areas that have expanded considerably since the first edition was planned.
Due to space constraints, our letter to *Human Development* focused on moral judgment, however, because it is reflective of the recent moral neuroscience work. We recognize that current moral neuroscience research has also focused on moral emotions. Given that our own expertise is in the area of moral judgment (and that judgment and rationality currently are under attack), we chose to focus on this piece of the moral neuroscience research, especially given the space limitations. Yet, clearly, we agree that there is a robust area of research on moral emotion neuroscience. We will leave concerns about that research to another essay.

Whether disgust is part of morality is also a complex issue which requires a longer response. Stated briefly, our view is that while disgust may be associated with individuals’ reactions to many moral transgressions (e.g., genocide, unfair distribution of resources, denial of civil liberties), it is also associated with many transgressions and acts that individuals do not categorize as moral (e.g., dog feces on the lawn, fraternity members vomiting after excessive drinking, a celebrity’s opulent party full of decadence). This is where we believe that definitions and criteria are essential. Without such parameters, everything and anything can be construed as “moral,” and then the entire enterprise of moral science becomes meaningless.

In fact, the distinction Blair refers to between justice and care was the focus of many debates within the psychological literature on moral development in the 1980s, spawned by Gilligan’s [1977] book on a care approach to morality. This debate provided an important opportunity to study how reasoning about justice and care differs [see Smetana, Killen, & Turiel, 1991]. The resulting concerns with defining and carefully assessing each type of orientation moved the field towards greater specificity, as well as greater differentiation in morality; while justice often involves elements of care, care often pertains to emotional feelings about another. Importantly, though, care judgments often lack the obligatory and prescriptive nature of moral judgments.

We would like to emphasize the progress and new developments in the field of moral judgment and moral neuroscience. Unquestionably, the findings and interest from researchers in moral neuroscience has taken us in new and exciting directions. As Blair [2001] states, it is important to learn how one field acquires new insights from the findings and evidence in the other field. Only with an integrated approach, one in which there is shared terminology, can we be part of the new developments in the psychological and neuroscience fields of morality.

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References


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**Gordon Wells Responds to O’Connor and Michaels’s Commentary on “Semiotic Mediation, Dialogue, and the Construction of Knowledge”**

First, I would like to thank O’Connor and Michaels for their careful and critical reading of my paper. To a great extent I agree with their comments. In the first part of their commentary, they have helpfully spelled out in detail one of the arguments that I was attempting to make, namely that the enactment of a dialogic stance is somewhat independent of the immediate discursive form of individual exchanges. This became apparent as we analyzed the data from the collaborative longitudinal research referred to in my paper.

We had initially anticipated that teachers who adopted an inquiry orientation would be less controlling of the discursive form of classroom interaction, and so we were surprised to find that the IRF structure remained the norm. However, on further analysis, it became clear that additional distinctions needed to be made. First, any particular episode of discourse needs to be seen in the larger context of the curriculum unit as a whole. For example, a predominance of monologic IRE exchanges (in which the third move is an evaluation) in a single episode that recaps previous learning may be entirely appropriate, in the unit as a whole, in preparing for a student-directed exploration of the current unit’s topic. Second, with respect to issues of power and knowledge, the function of an IRF exchange depends to a considerable extent on the form of follow-up that the teacher selects, for this is one of the most salient ways in which the teacher makes apparent her/his attitude to student contributions. O’Connor and Michaels’s example of “revoicing” is just one of the ways in which a teacher can follow up to give recognition to the student’s contribution while, at the same time, inviting him or her to clarify, elaborate or further explain it. As they argue, this is one significant way of enacting a dialogic stance.
As I understand O’Connor and Michaels’s response, then, we are in complete agreement about the desirability of teachers adopting an overall dialogic stance. We also agree that a dialogic stance cannot be simply equated with the choice of monologic or dialogic structure at the exchange level. In fact, I have made similar arguments about the importance of considering to whom “power” and “knowledge” are attributed on particular occasions when deciding on the interactive force of an exchange [Wells & Mejía Arauz, 2006], but, since these issues were not focused on in the paper under discussion, their carefully argued distinctions provide important clarifications for the reader.

On the second issue that O’Connor and Michaels address, namely the different “semiotic orientations” attributed to family talk in different social classes, I agree that their interpretations of the two short extracts, considered in isolation, are plausible. However, in the article from which they were taken and in earlier publications, Hasan [1986; Hasan & Cloran, 1990] provides many more examples that, taken together, provide strong support for her argument that class-related differences in family talk give rise to different “mental dispositions” that are consequential for children’s later experiences of talk in the classroom. In a more wide-ranging paper [Hasan 1992], she points up the relationship she sees between Bernstein’s theorizing and her own empirical findings by including the following quotation:

... the particular forms of social relation act selectively upon what is said, when it is said, and how it is said . ... [They] can generate very different speech systems or codes ... [which] create for their speakers different orders of relevance and relation. The experience of the speaker may then be transformed by what is made significant or relevant by different speech systems. As the child ... learns specific speech codes which regulate his verbal acts, he learns the requirements of his social structure. The experience of the child is transformed by the learning generated by his own, apparently, voluntary acts of speech ... From this point of view, every time the child speaks or listens, the social structure is reinforced in him and his social identity shaped. The social structure becomes the child’s psychological reality through the shapings of his acts of speech. [Bernstein, 1971, quoted in Hasan, 1992, p. 519]

The statistical evidence of the generally lower school achievement of lower-class children is widely attested. Nevertheless, as Hasan makes clear, while the different semiotic orientations appropriated in participating in family talk correlate significantly with school achievement, they are just one – albeit a significant one – of the contributing factors. However, I would reiterate two important qualifications: first, as the Bristol Study [Wells, 1986] showed, there is considerable variation within social classes in the forms taken by family talk; and second, what Hasan calls “mental dispositions” are not immutable. In particular, when teachers engage students (from whatever social class) in dialogic inquiry, in which they learn to make their meanings explicit, to provide cogent explanations supported by appropriate evidence, and to shape their contributions to
fit the social context, they are well able to develop the mental dispositions necessary for participating in the “progressive discourse” that Bereiter [1994] suggests is the means by which jointly constructed knowledge and individual understanding are advanced in Western societies. (Whether this holds true universally is in need of further investigation.)

In sum, I believe O’Connor and Michaels and I are in agreement on the pressing need to gain acceptance in the wider educational community of the need for learning and teaching to be enacted with a dialogic stance, and on the importance of teachers becoming involved, through research in their own classrooms, in advancing our understanding of how this goal may be achieved.

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*References*


