Yes, There Is Little Hope in Theory of Mind Research

Commentary on Montgomery

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Montgomery's article (this issue) contains a well-constructed and thought-provoking blend of conceptual analysis, metatheoretical contrast and critique, and empirical data illustrating a social constructivist perspective on the development of the use of the verb hope. There has been little discussion of the concept of hope in the empirical and theoretical literature, and I have learned a great deal from this paper. I hope, so to speak, that developmentalists will take up Montgomery's well-considered suggestions for future research on this neglected topic.

As one who has employed conceptual analysis in my own work [for a how-to guide, see Racine, 2015] and has investigated relations between children's use of mental state language and social cognitive development [e.g., Tafreshi & Racine, 2016], including the application of the social constructivist perspective that Montgomery illustrates [e.g., Racine, Carpendale, & Turnbull, 2006, 2007], I will first use this commentary to put Montgomery's work in context and explain its significance and implications. I then discuss the social constructivist metatheory from a more critical perspective by making some remarks about Montgomery's use of Wittgenstein that he employs to justify social constructivism and critique theory-theory. I conclude with some reflections on the role of metatheoretical work in social cognitive developmental research.

Mental State Language and Theory of Mind

As Montgomery's literature review and ensuing discussion show, a substantial body of work exists that has related children's acquisition of mental state language to their nascent "theories of mind."¹ There are competing positions though on what children's use of mental verbs signifies. In the main, children's use of terms like want, need, believe, think, and so on, is taken to mean that children have begun to understand the representational nature of mental states. Indeed, as Montgomery notes, mental state terms are often conventionally coded as genuine references (i.e., to representational states) as opposed to so-called conversational uses wherein a term such as "think" might be used to modify certainty instead of referring to a thought about some literal object or state of affairs [e.g., Bartsch & Wellman, 1995]. From this point of view, then, the problem the child faces in learning about the mind lies primarily in grasping its representational nature; and, accordingly, this problem can be solved by being born with the rudiments of such an understanding that develops further through experience with the social and physical world (the nativist perspective), or through constructing a theory that causally relates mental states to one another, and to behavior (the theory-theory perspective).² Although it might seem obvious that the mind is representational and that, therefore, children's social cognitive developmental task is clear, in fact, the so-called representational theory of mind (RTM), as it is often called in philosophical circles, makes it plain that a wholesale representational view of mind is indeed a *theory* about the mind [Slaney & Racine, 2011]. Whether children need to develop such a theory in order to understand mental life is of course another matter.

As I will use the term, the RTM is also a *metatheory* about the mind because it rests on a set of shared ontological and epistemological commitments that appear in several different "lower-level" versions of the theory [see e.g., Slaney & Racine, 2011]. We can also see the same thing occurring in theory of mind research. For example, Gopnik [2003] and also Perner [1991] have defended theory-theory positions that agree on the basic nature of the mind (ontology) and problem that the developing child faces in learning about it (epistemology), but they have different theories of how this occurs. Similarly, whereas Carpendale and Lewis [2004] and Nelson [2007] diverge on some theoretical details, they have elucidated social constructivist perspectives that share fundamental framework assumptions.

From Montgomery's perspective, an essential issue for theory-theory and like accounts is that a limitation of RTM-styled approaches is the sheer generality of the framework; it can lead one to treat all uses of mental verbs as if they are representational (or, as Montgomery puts it, descriptive), and that when we say that, for example, a child intends to do such and such, we are necessarily claiming that they hold a first order representational relation to some second order representational state that they intend. Although children surely can consciously reflect on how they might go

¹ I hope it is obvious that I mean theory of mind in the sense of demarcating a research area, not in the sense of claiming that the mind is a theoretical postulate.

² There is another representational perspective dubbed simulation theory [e.g., Harris, 1995] that argues children can anticipate the representational states of others through introspecting on their own. However, this theory lacks an obvious account of how the child knows mental states to be representational and will not be discussed further in this commentary.

about some action, the confusion lies in assuming that intention terms must always function in this manner. As Montgomery implies, Wittgenstein [2009] can be used to expose the limitations of RTM and related misconceptions; what goes for RTM goes for other representational accounts of theory of mind be they nativist, simulation, or theory-theory. Indeed, Wittgenstein [1969, p. 18] sardonically speaks of this tendency toward generality and essentialism as a “contemptuous attitude toward the particular case.”

Although the nativist perspective has received a good deal of recent attention because of research claiming to show that infants grasp at least some aspects of an RTM, including false beliefs [for a review, see Baillargeon, Scott, & He, 2010, but see e.g., Tafreshi, Thompson, & Racine, 2014], Montgomery targets the theory-theory approach and reviews a variety of theoretical commitments that appear in this perspective.³ Montgomery advances a social constructivist perspective as an alternative to theory-theory, as it would be to nativism as well, which lays emphasis on the contextual factors that come into play in mental state understanding and argues that mental state language is not generally representational.

Montgomery’s focus on hope is justified by the fact that the concept, unlike say belief or desire, has received little empirical or theoretical attention. In addition, a novel and persuasive aspect of Montgomery’s article is to show that although hope is treated as a desire concept, it actually possesses logical features of both belief and desire. Essentially, Montgomery shows that hope typically entails holding a justified belief about some state of affairs that the person desires to be the case. Montgomery shows this aspect of its use by conducting an analysis of the relevant concepts in play, an approach that harkens back to Wittgenstein [e.g., Bennett & Hacker, 2003; Racine, 2015; Racine & Slaney, 2013] from whom Montgomery quotes and draws, including a discussion of Wittgenstein’s [2009] private language argument. Montgomery then logically deduces particular cognitive abilities that would be presupposed in a child who shows mastery of the concept of hope. Although Montgomery does not claim that these capacities (i.e., futurity, agency, significance, certitude, and possibility) are unique to an understanding of hope, his analysis does pave the way forward for further understanding of children’s acquisition of this neglected concept.

Social Constructivism and Wittgenstein

Montgomery makes few explicit connections to, or remarks upon, social constructivism, but he is clear that he intends to draw from and apply this framework in his article. He states in addition that from the social constructivist point of view, “mental concepts originate in interpersonal, social interactions instead of in individualistic or introspective acts,” “meaning is jointly established within shared, everyday practices that guide word use,” and “young children’s communicative interactions influence, and are influenced by, cognitive development” (this issue, pp. 239–240).

³ To this point at least, the nativist perspective has also been silent on the infants’ understanding of hope so it likely made little sense for Montgomery to address this additional theoretical perspective in his article.

The point of this framework, then, at least in part, is to bring into the foreground the circumstances within which children learn the meaning of words. It also encourages the research community to consider the idea that social experience might not just enable the activation of innate structure, or the construction of a general theory-like mental structure through which particular mental concepts are understood, but rather that social experience itself might play a general causal role in children's understanding of the mind. As a consequence, from a social constructivist point of view, one would expect quite a bit of unevenness in development, as is indeed evidenced in Montgomery's CHILDES case study. One would also expect there to exist a variety of uses for what appear to be the same mental term because the same word can mean quite different things in different circumstances, as is also evidenced in Montgomery's case study. In addition, one would expect that *different* terms for mental verbs could mean virtually the same thing in the same context; this is an inevitable consequence of letting go of the idea that words get their meaning from their correspondence to reality and embracing the "meaning-as-use" perspective that Wittgenstein is often said to urge.

Although Montgomery does not directly predicate social constructivism on Wittgenstein's philosophy, he does use Wittgenstein's general meaning-as-use dictum and the private language argument in particular as justification for social constructivism and to critique theory-theory because of its Hobbesian-Lockean (and to Wittgenstein [2009], Augustinian) view of language. One might wonder why then do social constructivists, including myself as I have done in the past, often draw on Wittgenstein. One reason, as implied above, is to reject the view that psychological concepts (including hope) "get their meaning" through their correspondence to some feature of reality that is external (or internal) to the human subject; meaning is, from this point of view, socially constructed. As such, psychological concepts do not have necessary and sufficient conditions but rather are used in a variety of ways that show what Wittgenstein [2009] called family resemblances. Crucially though, for Wittgenstein, these patterns of use can be traced out to *clarify* the meaning of statements. In this sense, we can speak of "rules for use" or conventions or normative standards, and it is for this reason that Wittgenstein's philosophy is often spoken of as advocating a meaning-as-use perspective. It is perhaps not as well known though that Wittgenstein [2009, section 43, emphasis original] actually states, "For a *large* class of cases of the employment of the word 'meaning' – though not for all – this word can be explained in this way: the meaning of a word is its use in the language." This again shows Wittgenstein's subtlety and reluctance to formulate general principles. And, in either case, a risk in using such ideas in developmental theory is that if these conventions for Wittgenstein have their use in the clarification of language, Wittgenstein is not making a dogmatic claim about the correctness of certain uses over others, nor is he making a claim about how persons come to acquire the meaning of concepts. For these (and other) reasons, I have shied away from using Wittgenstein as a theoretical justification for empirical or theoretical work in my more recent research.

Wittgenstein's private language argument though remains a useful way of exposing a common misconception about the way that language functions. As Montgomery notes, the private language argument is meant to point out the lack of standards for correctness in the first person case when one is trying to label, for example, a sensation (i.e., we cannot know if a label is right or wrong if we have no standard for cor-

rectness); and, if the first person case lacks such standards, one cannot use the first person case as a standard for the third person case when making a statement about the mental states of others. This brings out another important relevant issue in Wittgenstein's philosophy of psychology: there is an asymmetry between first person and third person mental state attribution. In the third person case, we rely on behavioral and circumstantial criteria to ascribe particular mental states; as such, this process is defeasible and consequently subject to error. However, in the first person case, hope is expressed by what someone says or does in a "hope-appropriate" circumstance. Error here is not possible because the agent is the ultimate authority on what they express; what Wittgenstein seems to be trying to do here is to expose a view of avowals of hope as somehow coming from a description of some prior mental state of hoping; this is the Cartesian theater of the mind that Wittgenstein is often argued to be encouraging his readers to avoid. The fact that we can be wrong in our third person attributions, but that there are no grounds for correctness/incorrectness in the first person case, is an important part of what is at issue in the private language argument.

To Wittgenstein, these are logical points that clarify the relation between meaning and use, and which disavow the previous view he [1921/1961] had put forth in the *Tractatus Logico-Philosophicus* that he came to feel postulated, incorrectly, a necessary correspondence between language and reality. Another way that Wittgenstein shows the use of normative standards was to employ what he calls language games, from which much of the social constructivist perspective takes its inspiration. Wittgenstein offers many other devices and examples to make human rule-governed practices appear plain and taken for granted; he also uses children learning languages to make this point in a similar way. For this reason, I believe it is potentially also a mistake to take Wittgenstein to be advancing a theoretical or causal claim that certain types of language are required to experience a particular mental state; his point is more that the strongest form of evidence, so to speak, for what is on a person's mind is what a person says is on their mind.

How then, one might ask, could Wittgenstein's philosophy be used to justify a social constructivist developmental theory? Perhaps the best answer is that it cannot. If Wittgenstein's philosophy presents a style of conceptual analysis that can be employed to clarify the meaning of statements in order to remove conceptual confusion and needless debate, it is quite another thing to say that its clarifications about, for example, first person expressive uses of language somehow uniquely undermine theory-theory and leave social constructivism standing. This speaks to a more general issue in the use of Wittgenstein in developmental theory; it might be seen to rule certain moves out, but it does not really rule any in. In his philosophical work, too, Wittgenstein is notoriously antitheoretical; it is, therefore, potentially awkward to use his style of analysis to justify a particular theoretical orientation. Then, there is the sheer volume of scholarly work on the meaning of Wittgenstein's legacy. Which of his remarks do we wish to interpret, how do we wish to interpret them, and why?

Social Constructivism as a Metatheoretical Framework

This brings me to the final main point I wish to make in this commentary. Although I appreciate and have learned from Montgomery's conceptual work and his case study illustration of language use and the social constructivist perspective, my

worry is still that social constructivists and theory-theorists are often just using different languages to describe the same patterns of behavior and are mostly illustrating different ways of conceptualizing the ontology and epistemology of mental states. In other words, although perhaps this is an inevitable consequence of doing social science, where the constructivist sees causal social relations the theory-theorist sees causal mental states. (And where the simulation theorist sees causal processes of introspection, the nativist sees causal modules.) I do not claim this to suggest that there is an anything-goes-relativism afoot in social cognitive developmental theory, but rather in an attempt to clarify the role and use of developmental metatheory. And I will be particularly blunt: I believe that the use of metatheoretical contrast and critique in social cognitive circles has done little to advance our understanding of child development. This should come as no surprise, too, because that is manifestly *not* what metatheoretical comparison is intended to do. Rather, it is intended to promote particular theoretical perspectives and expose the conceptual limitations of rival theorists. Such work is, of course, potentially valuable: classifying theories and explaining limitations in theoretical frameworks can be productive scientific activities. In contemporary developmental circles though, it does not seem to be enough to use conceptual analysis to show in a very clear manner, as Montgomery has done, that there are misunderstandings about the ways that language functions and the possible relevance this holds for particular theories. Instead, there is a push for an “alternative theory” within which to cast one’s criticisms of a rival approach, and Montgomery is happy to oblige with allusions to social constructivism. In my view, this is unfortunate and easily confuses empirical with logical issues in a way that can often impede theoretical progress.

An underlying issue that Montgomery is clearly sensitive to is the overreach and sheer generality of our theoretical tools. Although it is typically the case in science that the more general the theory then the more adequate it is taken to be, there is an irony though in arguing that a problem in representational accounts of social cognitive development is their assumption that language *always* functions in the same manner while at the same time arguing that knowledge is *always* constructed through social interaction. Although it could be very appropriate to understand some developmental phenomena in this manner, or at least some aspects of them, why take on this heavy metatheoretical baggage? And if metatheoretical debates are about the adequacy of general frameworks, then the role they can *generally* play in guiding individual research projects in particular areas becomes a bit mysterious. Of course, individual research findings can be used to *illustrate* a metatheoretical framework, and, indeed, as Montgomery notes, he has done exactly that in his case study, but I am willing to bet that a theory-theorist or nativist could do a decent job of illustrating their framework with the same CHILDES data. Therefore, unless explicitly doing metatheoretical work, I suggest that it might be more fruitful to leave metatheory in the metatheoretical realm to which it belongs.

As decades of nature-nurture debates in psychology might also remind us, the very same social experience that seems to some a causal force seems to others more like a trigger. And increasingly researchers argue for systems views of these phenomena in recognition of the fact that for many developmentalists, including social constructivists, bidirectionality is often involved such that, for example, language might affect social cognition, and vice versa. A social constructivist though would presumably acknowledge that a fuller causal story is likely going to take a larger

swath of causal factors into account than language and social experience. The physical world matters. Biology matters. Culture matters. Evolution matters. What is going on inside the organism's head matters. And so on. Thus, although I take the social constructivist point that it is important to not rely on simplistic views of mental causality, social constructivism might best be understood mostly as a set of cautions about how to think about social development than anything particularly theoretically rich in a causal sense. In case this seems too uncharitable, recall again that Montgomery (this issue, p. 240) summarizes the social constructivist tenet that "young children's communicative interactions influence, and are influenced by, cognitive development." One should ask oneself how it could be otherwise. An issue, therefore, with this sort of statement is how, for example, are we to know what is due to cognitive development versus social interactions versus language? That is, what is the causal story that is being told? It seems that what is being presented is simply a metatheoretical framework (i.e., social constructivism) for how to think about child development. If so, then what is being done in this paper is to illustrate how things, including Wittgenstein, look from a social constructivist frame of reference. This is useful, and might be particularly useful for reminding people that when we say someone hopes such and such, hope is a complicated concept with subtly different uses and that we are not engaged in some literal process of mind reading.

I conclude this commentary by thanking Montgomery again for his excellent article. And I take particular note of the fact that *none* of his recommended future research suggestions has any particular metatheoretical axe to grind. This much gives me hope.

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