Commentary/Carpendale & Lewis: Constructing an understanding of mind

Perhaps one of the more controversial claims that C&L make in this regard turns on the so-called "contents" of the mind (mental states such as beliefs and intentions) and their relation to human action. In rejecting the "causal psychological view of the mind" that posits mental states as hidden causal "entities" driving behavior, C&L effectively claim that our language about mental states has fooled us all and that, in fact, "there are no such contents." All of this seems quite hard to swallow. Nevertheless, C&L's position is not without support. Although borrowing ostensibly from Wittgenstein to develop their alternative view, C&L might just as easily have taken a page from Dewey (see, e.g., his 1912 essay, "What are states of mind?" in Dewey 1912/1979), who similarly argued that "psychical" states are the result of "retrospectively" reframing our broader activities and experiences - what he calls "organic reactions" - and, as such, "are neither antecedents nor concomitants, in a separate realm of existence . . . but are the very qualities of these reactions" (Dewey 1912/1979, p. 36). The upshot of this view, as expressed in more current philosophical circles, is that "our psychological classifications are constitutive of our mental states and events" (Kusch 1997, p. 18; see also Taylor 1985), or, phrased more polemically, that our private thoughts are in fact "social institutions" (see Kusch 1999, pp. 321-68).

Much of what is polemical here, however, follows from a somewhat different classification issue. The culprit in this case is the traditional bimodal scheme of classifying things as *either* natural *or* social kinds. As the logic in this scheme would have it, if natural kinds refer to *real* things in the world, then, by default, social kinds must refer to made-up things, or, worse, to nothing at all. Mental states, in this either-or classificatory system, must either be seen then to somehow cut the mind-brain at its natural joints or amount to mere "mythical posits." C&L, as well as many others who might otherwise agree with their assessment, are likely to be dissatisfied with these two options. Thankfully, there are other, more rewarding ways to divide the spoils.

In addition to - or more precisely, in between - such natural and social kinds are what some philosophers have come to call "human" (Hacking 1992) or "artificial" (॑kusch 1997; 1999) kinds. To be clear, insofar as each kind involves a self-referential component, they are all in some sense socially constructed. Still, the degree of self-referentiality differs in important ways for each. At one end of this continuum, there are social kinds that are entirely created, sustained, and enforced by our collective actions without making any kind of reference beyond such activity. That is, they admit no "alter-reference" that, as Kusch (1997) explains, "refers away from itself toward individuals in the physical world, individuals that exist independently of the reference" (p. 17). The other anchor point - natural kinds like mountains and rivers - possesses these independent characteristics, although even here some collective agreement is necessary in order to establish the criteria by which we meaningfully sort them. Finally, and falling in between these extremes, there are artificial or human kinds that possess such an alter-reference, much like natural kinds, but that are also similar to their social counterparts in that they do not exist apart from human classifying and meaning-making activities - in fact, human activities are what bring them into physical existence in the first place.

Importantly, then, artificial kinds are no less real than any other humanly constructed or manufactured object. More central to our purposes here, however, is not so much what they are, but what they sometimes become. That is, artificial or human kinds are sometimes prone to a reification process by which the constructive, or socially constituted, element is overlooked or even forgotten. Kusch (1997) claims that this is the case, for instance, with money: "to be money' is easily thought of as being an intrinsic, non-social property of certain metal discs" (p. 3). Although it would hardly seem to require a philosopher to demonstrate that this is a mistake, a related error is often made when it comes to understanding mental states. Like money, mental states are an instance of an artificial or human kind, and not coincidentally, are "easily thought of as being intrinsic, non-social properties of certain entities called selves or minds" (Kusch 1997, p. 3).

Viewing mental states as human or artificial kinds (rather than natural or social), and acknowledging this tendency toward reification, clearly fits with the Wittgensteinian proposal on offer by C&L and, we argue, helps to further bridge what C&L call "the impasse between individual and social perspectives on social understanding" (sect. 5, para. 1). It does so, we claim (and here is our main point), without at the same time drawing us toward the enculturation view that C&L rightly warn us against, and without whittling away at the contribution of individual agency in the construction of mental life.

The social matrix reloaded: An attachment perspective on Carpendale & Lewis

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Abstract: The "new" theory of Carpendale & Lewis (C&L) needs be compared with existing elaborated and tested models concerning the social origins underpinning the sense of being a person with thoughts and feelings in relation to others. Illustrations are provided from contemporary attachment theory and research in the context of questioning the potential legacy of Piaget as a theorist of social relationships.

Carpendale & Lewis (C&L) are right to draw attention to the primacy of social context, for our sense of self depends on the meanings we take from, and give to, our closest relationships. The view advanced by C&L is highly compatible with elements of attachment theory (Ainsworth et al. 1978; Bowlby 1969/2000). Bowlby regarded his theory as one among a range of psychoanalytic object-relations theories (Bretherton 1998). Object-relations theories have in common the view that the primary motivation in human life is the wish to form and maintain an enduring emotional relationship with other persons (Steele & Steele 1999).

The complicated interactive dances that typify mother-andbaby interactions are thought to facilitate or dampen the infant's regulatory system and brain development (Schore 2000). As Tronick and Weinberg (1997) have described, "mutual regulation is one of the processes that shapes the human brain itself . . . Thus the brain, like emotional experience, is jointly created" (p. 73). What infants learn from these early social interactions is thought to be stored in their *internal working models*, which denote an active person experiencing and constructing emotions, expectations, memories, and narratives (Nelson 1999).

C&L remind us that Piaget had much to say about the fundamental role of social relationships upon cognition. Piaget's distinction between constraining and cooperative relationships captures some of the risks and opportunities of social interaction. Yet this dichotomous model leaves us a bit short, as it does not take into account much of the nuances in describing the complexities of human relationships. Contemporary attachment theory and research, such as those utilising narrative analyses in children and adults (Main et al. 1985), pay close attention to an extensive range of identifiable speech patterns concerning attachment topics such as separation, rejection, loss, and trauma. Some of these speech patterns, such as profound lapses in the monitoring of speech or reason concerning past loss or trauma, are markers of risk factors for both parent and child (Steele & Steele 2003; van IJzendoorn & Bakersman-Kranenburg 1996; Wallis & Steele 2001). Other of these speech patterns, sharing a robust adherence to Grice's (1975) maxims of "good conversation," that is, truth, economy, relation, and manner, are predictors of optimal parenting and emotional well-being in children (Steele 2002).

The *theory* of theory of mind advanced by Carpendale & Lewis could thus be bolstered by incorporating the burgeoning knowledge on the nature of parent-child interactions and on individual variations in dyadic emotion-regulation patterns out of which emerges a sense of self. Recent theorising and research on infant development underscores how early and in what contexts the sense of agency and relatedness may be observed to thrive or suffer (Koulomzin et al, 2002; Schore 1994; Stern 1985; Trevarthen 2003; Tronick & Weinberg 1997). Further data from diverse sources, such as facial affect recognition (Skuse 2003), are converging to elucidate a more detailed understanding of emotional development.

One would wish to heed the sympathetic call by C&L to take account of the infant's social context, dyadic, triadic, and beyond. However, the extent to which this is a new call or an old echo is debatable. Consider the continued relevance of Bronfenbrenner (1979) or psychoanalytic object-relations theorists. Beyond Bowlby, the words of Donald Winnicott come to mind: "there is no such thing as a baby." This provocative statement draws immediate attention to the baby's social context. At the same time, Winnicott did not underestimate the paradoxical – both individualistic and social – challenge of development. Healthy psychological development, he urged, is likely to be secured by cultivating and protecting the capacity to be alone in the presence of another (Winnicott 1965).

C&L find support for their approach in the findings that "secure" attachments appear to facilitate the development of a theory of mind. In our own longitudinal attachment research (Steele et al. 1996), we have also observed advanced theory-of-mind skills not only among infants with a history of a secure attachment, *but also* among those with a previously observed highly anxious/fearful, disorganised attachment to mother (Fonagy et al. 1997). Notably, these successful predictions from infant-mother attachment security at one year to theory-of-mind performance at age five were in respect of belief-desire reasoning skills, that is, where the child was required to guess correctly the *feeling state* of a deceived puppet. Attachment security did not predict belief-belief reasoning, that is, where the child was required to guess correctly the *behaviour* of a doll acting on information that is no longer valid.

Thus, the relations between infants' social experiences and the evolution of their theory-of-mind skills are likely to depend on the extent to which the context loads more on the social-emotional register as opposed to the cognitive-behavioural one. Also, given the similar performance we have observed in children with organised-secure and disorganised early attachments, we must not assume that similar phenotypic outcomes share the same type of social determinants. In one case a child may be advanced in theorising about emotion because one or both parents have provided much helpful talk about feelings (Dunn et al. 1991a). In another case, the child may be advanced because the parent was liable to unpredictable and frightening behaviour such that the child needed to know when to run or hide. The value of quickly detecting (on the caregiver's face) the imminent rise of anger before it reaches its full-blown potential (when this has previously led to abusive behaviour from the caregiver) cannot be underestimated (see Pollak & Sinha 2002).

Hence, the long-term effects of early social experience are likely to be manifest in the domain of emotion recognition and emotion understanding (Steele et al. 1999) and social cognition (Steele et al. 2002) and not necessarily in the broad cognitive domain, to which most theory-of-mind tasks belong. In other words, a *social* constructionist account of *social* cognition may be highly apt, but an individual-differences and emotion-focused account of many aspects of cognition may nonetheless have continued relevance.

The internalization of mental state discourse contributes to social understanding

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Abstract: Children's exposure to and participation in mental state discourse contributes to their development of social understanding. Vygotsky's mechanism of internalization is used to account for this process, which has advantages of cultural and linguistic universality. If children internalize mental state discourse, however, then their own use of mental state language should be related to social understanding.

Carpendale & Lewis (C&L) are commended for their social constructivist account of the origins of social understanding. They provide a theoretical context for recent work which has shown that various features of the early social environment of children are related to their concurrent and later performance on false belief tasks, tasks which are seen as indices of theory of mind, specifically, or social understanding, more generally. Their approach brings together social and cognitive development research domains, which have proceeded largely in isolation from one another for decades (with several noteworthy exceptions), very like the parable of the learned blind men of Hindustan examining different parts of the social understanding elephant.

To support their thesis, C&L review research on the impact of social discourse. This research has shown that social understanding develops relatively earlier in children exposed to mental state language in a variety of interactional contexts that include play interactions with peers and siblings, parental discipline, and joint reading with parents (e.g., Meins et al. 2002; Ruffman et al. 2002). Further, a series of training studies (e.g., Appleton & Reddy 1996; Slaughter & Gopnik 1996) lends experimental evidence to the claim that exposure to discourse about mental states can enhance children's performance on false belief tasks. Issues arise which include drawing causal inferences from longitudinal and experimental data, the external validity of false belief tasks, and the largely unknown cultural specificity of links between relationship variables, language, and social understanding. But the evidence is compelling.

However, C&L have been tentative in delineating a mechanism for the developmental relation between interpersonal factors and social understanding. For example, in the concluding comments of this paper, C&L highlight the recent and persuasive findings of Meins et al. (2002) that mental state discourse of parents predicts children's false belief understanding four years later. They then pose the question: "What is it about the nature of these parents' interactions with their infants that correlates with the development of social understanding?" (target article, sect. 5, para. 4). Reframed, the critical question could be: How does exposure to discourse about mental states lead to enhanced social understanding in children? An answer lies in Vygotsky's mechanism of internalization (see Bruner 1986; Lloyd & Fernyhough 1999; Vygotsky 1978; 1986).

Vygotsky proposed that children internalize social speech, and such internalization socializes a child's practical intellect. Higherorder thought originates in the internalization of external social relationships and meanings, not by merely imitating the external in the internal, but by recoding what is known about the external into the internal (C&L's "reconstruction of knowledge," target article, Note 2). Applied to social understanding, mental state discourse leads to young children internalizing the notion that others can have thoughts and emotions that differ from their own. Children experience discourse about thoughts and beliefs of others and integrate such talk into their own behavior. This is fundamental to self-other understanding and passing false belief tasks.

C&L actually discuss internalization earlier in the article, but it