Carpendale & Lewis (C&L) argue for a third alternative to individualism and collectivism with regard to cognitive development in terms of Chapman's (1999) epistemic triangle (ET). This triangle has a central apex in the coordination of the remaining duality consisting in interactions with physical objects and communications with other people (target article, sect. 3). My argument is that C&L's re-analysis is misleadingly incomplete. My alternative proposal is in terms of the human capacity to make judgments.

What is an object? An answer in terms of Popperian realism about three worlds, recently recast by Bereiter (2001), is instructive: world 1 is the world of physics; world 2, the world of psychology/sociology; and world 3, the world of epistemology. Translated into C&L's re-analysis, an ET is the coordination of world 1 physical objects with minds in societies in world 2. But this is problematic. The objects and properties of these worlds are exclusive, and so problems of Kuhnian incommensurability remain. First, physical objects and their properties are not psychosocial. Nor are psychosocial objects and properties physical. This means that they have in common no distinctive properties – other than causality, which is addressed below – and so C&L's re-analysis has not been carried through. Second, there is worse: Whereas physical and psychosocial objects have causal properties, world 3 epistemic coordination objects would have normative properties. Paradigm cases of normativity include truth-values (only truths can be known) and entailments (knowing $3 + 4 = 7$ entails $3 \times 4 = 12$). Nor are these the only cases in the class (Smith 2002). There is nothing in C&L's proposal to show how this reconciliation of the normative and causal properties of knowing could be carried through in the construction of true knowledge bound by necessitation. Hence, ET coordination in C&L's re-analysis names but does not explain cognitive development.

An alternative proposal is to regard objects intentionally as the content of acts of judgment (Smith 2002; 2003). Acts include physical and communicative interactions, and so straddle worlds 1 and 2. These interactions occur as lawful regularities in contingencies, contexts, and cultures for causal explanation in psychology/sociology. An important type of act is assertion and denial when an agent makes a judgment. The content of a judgment is an intentional object based on norms internal to the act. Norms include rules, obligations, and directives with a common logic (von Wright 1963). They occur in all domains of knowledge and are used by individuals in societies. Acts have agents who regulate their actions in terms of norms – following Piaget (1965a, p. 159) "a subject is always 'normed.'" The implication is not whether agents use norms, but rather which norms these are and how they are used. Regulations may occur as normative facts which are "imperative rules whose origin is in social interactions of all kinds, and which act causally, in their turn, in the context of individual interactions" (Piaget 1977/1995, p. 69). Normative facts are facts and are empirical. They are open to investigation at all developmental levels. Central to this developmental epistemology (DE) is the proposal that (intentional) objects are constructed in virtue of linkages between causal facts and normative facts through uses of the capacity to judge.

Here are some examples of normativity covering both adults and children:

A. Martin Luther was directed at a religious tribunal to explain why his judgment was to be trusted over that of his peers. Luther argued that "I do not accept the authority of popes and councils, for they have contradicted each other. Here I stand, I cannot do otherwise."

B. Galileo argued that the Ptolemaic and Copernican models of the universe were false and true, respectively. He was directed by the Church to accept that this analysis was erroneous. Asked to explain why he had violated this command, Galileo insisted that he had no memory of agreeing to it.

In examples [A] and [B], an individual is in social dispute with peers. This dispute is manifest in incompatible judgments, which are due to commitments to divergent norms in their societies.

C. Mat was asked to add 3/4 and 1/4, adding numerators and denominators, making 4/8, and then through a pie chart, making 1. Asked a normative question about how to decide which answer was right, Mat replied permissively: "it depends on which method you are told to use" (Kamii 1982).

D. Normative commitments about number conservation were at work in 20% of children's incorrect responses: lengthening one line of counters reduced their number in that "you've taken two away (and so) these two aren't there." These judgments were analogous to a normative disqualification in a game when a player is "sent off" (Smith 2002).

In [C] and [D], children are in causal settings influencing their performances. Their erroneous judgments are made by reference to norms which are divergent from those of their teachers.

E. In a study of mathematical induction, young children repeatedly added one counter to each of two containers, where initially X's contents were one more than Y's. Asked a generalisation question, John replied "that (X) would be right up to the cover in the sky and that (Y) would be right up to God, so then they would still have to be more." This was superb reasoning by analogy through a cultural belief that God lives in Heaven on the top of which was a cover. Thus were the contents of B still more than those of A, and necessarily so (Smith 2002).

Cases [A] and [B] show that normative advances are made by adults, and [E] that they are made by children, with [C] and [D] giving testimony to the difficulties. These rich phenomena cry out for explanation. Central to DE is how "each individual is led to think and re-think the system of collective notions (Piaget 1977/1995, p. 76). Norms are used in the initial "thinking" of sociocultural notions, and are developed in their "rethinking." Key advances are made from causality to normativity (Piaget 1977/1995, p. 51), from "normative pressure" to autonomous normativity (von Wright 1963). Quite how such advances could be made remains indeterminate in C&L's re-analysis.

A penny *is* your thoughts? Reflections on a Wittgensteinian proposal

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Abstract: Although in fundamental agreement with Carpendale & Lewis's (C&L's) position, we discuss a potential source of confusion regarding the socially constituted nature of mental states. Drawing from recent work by Kusch (1997; 1999), we argue, more specifically, that mental states are instances of "artificial kinds," and so, stand between the more common classificatory extremes of "the natural" and "the social."

Most of us, we suspect, labor under the impression that our thoughts are private and that even if Big Brother scrutinizes other aspects of our lives, at least our *mental* lives are safe from prying eyes. To be told otherwise – that is, to hear on good authority that our minds are not the private sanctuaries we have always imagined them to be – would be unsettling. Although this was not our own first reaction to Carpendale & Lewis's (C&L's) broad proposal regarding the socially constructed nature of the mind, we argue here that perhaps it should have been. In their treatment of the debate concerning the relative contribution of social versus individual processes in development, C&L effectively "out" the often closeted "individualistic" assumptions underlying much of the present-day smart talk about children's understanding of mind and, in the bargain, usher in a set of perhaps even more radical claims. That is, Orwellian threats notwithstanding, we suggest something even more insidious is afoot in C&L's proposal, not the least of which is that our mental lives may never be quite so "private" again.

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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-and-baby 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).

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