Direct social perception and dual process theories of mindreading

Mitchell Herschbach *

Department of Philosophy, California State University, Northridge, United States

A B S T R A C T

The direct social perception (DSP) thesis claims that we can directly perceive some mental states of other people. The direct perception of mental states has been formulated phenomenologically and psychologically, and typically restricted to the mental state types of intentions and emotions. I will compare DSP to another account of mindreading: dual process accounts that posit a fast, automatic "Type 1" form of mindreading and a slow, effortful "Type 2" form. I will here analyze whether dual process accounts' Type 1 mindreading serves as a rival to DSP or whether some Type 1 mindreading can be perceptual. I will focus on Apperly and Butterfill's dual process account of mindreading epistemic states such as perception, knowledge, and belief. This account posits a minimal form of Type 1 mindreading of belief-like states called registrations. I will argue that general dual process theories fit well with a modular view of perception that is considered a kind of Type 1 process. I will show that this modular view of perception challenges and has significant advantages over DSP's phenomenological and psychological theses. Finally, I will argue that if such a modular view of perception is accepted, there is significant reason for thinking Type 1 mindreading of belief-like states is perceptual in nature. This would mean extending the scope of DSP to at least one type of epistemic state.

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1. Introduction

Mindreading is the ability to understand and respond to the mental states of other agents. The nature of the cognitive processes enabling mindreading has been an important research question for decades, but recent research has focused on providing a more fine-grained analysis of the phenomena and mechanisms of mindreading. This includes characterizing the phenomenological experience of mindreading, delineating the various environmental contexts in which we mindread and the task demands of those different contexts, and determining the representational, architectural and processing characteristics of our mindreading mechanism(s).

The *direct social perception* (DSP) thesis is one recent attempt to recharacterize the phenomena of mindreading (e.g., Bohl & Gangopadhyay, 2014; Gallagher, 2008a; Gallagher, 2008b; Gallagher & Varga, 2014; Gangopadhyay & Miyahara, 2015; Krueger, 2012; Krueger & Overgaard, 2012; McNeill, 2012; Smith, 2010; Smith, 2015; Zahavi, 2007, 2008, 2011). DSP rejects the idea that most mindreading involves an inferential process from perceptual information about a person's bodily and verbal behavior to a cognitive representation of the mental states underlying that behavior. While admitting that we do sometimes make these sorts of inferences from behavior to mental states, DSP claims that there is also a type of mindreading

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* Address: California State University, Northridge, Department of Philosophy, 18111 Nordhoff Street, ST-522, Northridge, CA 91330-8253, United States.
  E-mail address: mitchell.herschbach@csun.edu

involving the *direct perception* of others' mental states. DSP advocates have generally focused on intentions and emotions as the mental state types capable of being directly perceived. The following passage by Max Scheler captures this position about emotion:

> For we certainly believe ourselves to be directly acquainted with another person's joy in his laughter, with his sorrow and pain in his tears, with his shame in his blushing, with his entreaty in his outstretched hands... If anyone tells me that this is not 'perception', for it cannot be so... I would beg him to... address himself to the phenomenological facts.
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> [Scheler, 1954, p. 260]

Similar claims are made about directly perceiving intentions: For example, if I reach toward the cup to my left, others can directly perceive my intention to drink from the cup.

In order to help articulate the commitments of and evaluate DSP, I will compare it to another recent type of mindreading account: *dual process* accounts (e.g., Apperly, 2011; Apperly & Butterfill, 2009; Butterfill & Apperly, 2013a,b). Dual process accounts of mindreading claim we engage in two main types of mindreading, one relatively fast, automatic, unreflective, and cognitively efficient, the other relatively slow, controlled, reflective, and cognitively effortful. Further, they often posit that physically and/or functionally distinct psychological mechanisms enable these two mindreading types. This approach follows within the larger tradition in psychology of *dual process theories* that distinguish two general types of psychological processes, *Type* 1 *and* 2 *processes*, and often further claim these process types are enabled by distinct psychological mechanisms, often labeled *System* 1 *and* 2 (e.g., Evans, 2010; Evans & Frankish, 2009, 2013; Frankish, 2010; Kahneman, 2003, 2011).

An initial motivation for comparing DSP and dual process mindreading accounts is that they both treat slow, deliberate, effortful mindreading and fast, automatic, effortless mindreading as distinct psychological kinds. Dual process accounts are explicit about this and often posit separate psychological mechanisms responsible for these two types of mindreading phenomena. DSP advocates have been less focused on characterizing psychological mechanisms, but clearly treat perceptual and non-perceptual mindreading as distinct psychological types. This places DSP and dual process accounts in opposition to views that treat fast and slow mindreading as two modes of operation of the same basic type of psychological process or mechanism—for example, Carruthers (2013) argues that intuitive and reflective mindreading use the same basic representational resources.

But while both DSP and dual process accounts treat fast, automatic mindreading as psychologically distinctive, DSP is unique in characterizing it as *perceptual* in nature. The dual process literature certainly identifies perception as a paradigmatic example of a fast, automatic psychological process. But dual process accounts of mindreading tend not to even consider the possibility of perceptual mindreading as advocated by DSP. This invites the question of the relationship between DSP and dual process accounts of mindreading. Should they be seen as rival accounts of fast, automatic mindreading, with only one offering an accurate characterization of these mindreading phenomena? Or are they actually identifying distinct subtypes of fast, automatic mindreading, some perceptual and others non-perceptual?

One reason for thinking DSP and dual process accounts may be compatible accounts of distinct mindreading phenomena is that they often focus on different mental states types. As mentioned above, DSP advocates usually only claim that *intentions* and *emotions* can be directly perceived; they do not make this claim about *perceptions*, *beliefs*, or *thoughts* (e.g., Gallagher & Varga, 2014, p. 190). There are, however, dual process mindreading accounts of the fast, automatic understanding of epistemic states such as belief—one of the most influential and well-articulated being put forward by Ian Apperly and Stephen Butterfill (Apperly, 2011; Apperly & Butterfill, 2009; Butterfill & Apperly, 2013a, 2013b). As we'll see below, Apperly and Butterfill argue that the use of the full-blown concept of belief as a propositional attitude is likely too cognitively demanding to enable fast, automatic mindreading. They instead explain Type 1 belief understanding in terms of a "minimal" mindreading system operating with a non-propositional concept of "belief-like" states called "registrations," rather than the concept of belief proper. The point for now is that perhaps DSP and dual process accounts can be made compatible by treating DSP as a thesis about intentions and emotions, leaving dual process accounts to characterize fast, automatic attribution of epistemic states.

Why have DSP advocates in this way restricted the scope of their thesis to intentions and emotions? The main motivation for doing so seems to be the claim that mental state types that are closely connected (perhaps constitutively connected) with particular behaviors seem the best candidates for the DSP thesis. This is because everyone agrees we can perceive people's bodily behavior. So it is less controversial to treat mental states closely connected to behavior as being perceived. Intentions and emotions seem to be mental state types fitting this description. For example, as Spaulding (in press) puts it, "it is part of the concept of intention that an intention to Φ is correlated strongly with Φ-ing" (p. 3). Similarly, emotions are rather tightly associated with particular behavioral expressions—think of the prototypical facial expressions of the basic emotions. Epistemic mental states such as perception and belief, however, are much less tightly connected with any particular behaviors. As critics of behaviorism famously emphasized, how one acts will depend on not only one's beliefs, but also a host of other mental states. Accordingly, it is less plausible that a person's beliefs could be directly perceived.

It is worth considering, however, whether this restriction of the scope of the DSP thesis stands up to further scrutiny. Indeed, Butterfill and Apperly (2013b, p. 7) themselves have recently mentioned the issue of the observability of mental states, remaining open minded about the DSP thesis and its application to their mindreading account. I will here explicitly take up the task of analyzing whether Apperly and Butterfill's account of fast, automatic attribution of belief-like epistemic states should be considered perceptual or non-perceptual mindreading. This task of determining what mental states types *should* fall within the scope of DSP thesis requires investigating what properties are essential to categorizing a mindreading