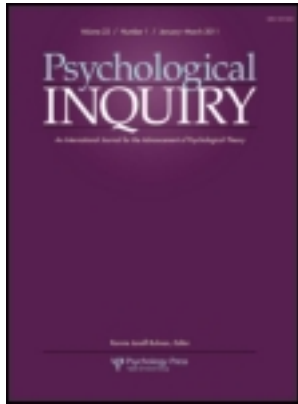


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### Agent, Patient ... ACTION! What the Dyadic Model Misses

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## Agent, Patient . . . ACTION! What the Dyadic Model Misses

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Beef stock contains the essential reduction of a bull. Picasso captures something much more extraordinary: the essence of our visual representation of a bull—the spare curve of a nostril that our mind supplies with steaming breath. Evoking this analogy, Gray, Young, and Waytz (this issue) propose that the essence of our mental capacity to identify moral violations is dyadic mind perception. Do they succeed?

According to the dyadic model, the essential form of morality is a perceived set comprising two minds: an agent and a patient. The agent is capable of forming intentions from which follows moral responsibility, whereas the patient experiences sensations from which follow moral rights. Gray and colleagues argue that perception of an agent's intentions (e.g., to harm) and a patient's experience (e.g., suffering) constitute the basis of moral judgment. Moreover, they argue that because morality is essentially dyadic, people are compelled to complete the moral dyad when only half of it is observed. Thus, given just a moral agent people perceive a moral patient, and vice versa. Last, they claim that the moral dyadic model uniquely explains moral typecasting, the idea that people view others as *either* moral agents *or* moral patients, never both.

So let's subject the dyadic model to the Picasso test, committing a minimum of ink to the page and then awaiting a fully animated concept. *John intends to harm Mary, who is suffering.* Is this the essence of morality? Do you see a bull?

We do not. To our eyes, John is not yet morally responsible and Mary's rights have not been violated. This thought experiment leads us to doubt that the dyadic model of mind perception fully captures the essence of morality.

Our aim is to indicate what is missing while affirming what holds promise. In considering a potentially immoral<sup>1</sup> action, both legal scholars (Bonnie, Coughlin, Jeffries, & Low, 2010) and everyday folk (Guglielmo, Monroe, & Malle, 2009; Malle & Nelson, 2003) reveal specific elements that must be present in order to arrive at a guilty verdict. It is important to note that the elements provided by both groups overlap conceptually and, we argue, provide a useful framework for investigating the moral dyadic model's contribution to moral psychology. A criminal offense consists, in le-

gal terms, of three primary parts: *mens rea*, *actus reus*, and causation (Bonnie et al., 2010). In common terms, these are a guilty mind, a guilty act, and causal responsibility for a harmful outcome. In Picasso's terms: *John intentionally harmed Mary.* To our eyes this a truer reduction of morality. We examine each element in turn.

### Mens Rea

To convict someone of a crime, the prosecution must provide evidence that the person had a guilty mind. That is, the person must intentionally perform the negative action in question. Similarly, intentionality plays an important role in moral judgment (Alicke, 2000; Cushman, 2008; Darley & Shultz, 1990; Heider, 1958; Killen, Mulvey, Richardson, Jampol, & Woodward, 2011; Piaget, 1932/1965; Robinson & Darley, 1995; Weiner, 1995; Young, Cushman, Hauser, & Saxe, 2007), and people search for evidence of intentionality before attributing blame (Malle & Guglielmo, 2011; Malle, Guglielmo, & Monroe, 2012).

This criterion is fundamental to Gray and colleagues' model; they convincingly argue that to identify a moral violation requires ascribing intent to an agent. Equally fundamental to their model, however, is the claim that the essential process is one of mind perception, rather than mental state inference. Gray and colleagues mention this distinction, but it could benefit from a more precise definition. We provisionally define mind perception as the process by which people "determine if another agent has a mind" (Epley & Waytz, 2009, p. 498) and mental state inference as "judgments about what others think, want and feel" (Ames, 2004, p. 340).

At first blush, mind perception appears to be hopelessly overbroad as a criterion for identifying a moral violation. Surely it is necessary to identify a mind (or two), but equally surely the mere identification of a mind is not sufficient to support a moral judgment. Walk down a crowded city street and you'll perceive many minds without any basis for moral judgment.

This deflationary background brings the important contribution of the dyadic model into relief. The unexpected and profound finding is that mind perception goes much deeper than "determin[ing] if another agent has a mind" (Epley & Waytz, 2009, p. 498). Rather, mind perception is characterized by at least two

<sup>1</sup>Following Gray and colleagues we restrict our analysis principally to processes of moral blame, rather than praise.

dimensions: agency and experience (Gray, Gray, & Wegner, 2007). These dimensions, they argue, correlate with the moral concepts of responsibility and rights, respectively. As agents form intentions to act upon the world, they are responsible for the consequences of those intentions. Similarly, because patients only experience the world, they have moral rights to be protected from injustice.

Why characterize agency and experience as dimensions of mind perception rather than mental state inference? The key evidence is a trade-off between agency and experience in the moral domain. It appears that we categorize minds as either moral agents or moral patients. Such a trade-off at the level of the mind (or person) is hard to explain on a model of mental state inference. There is no reason to suppose that inferring a person's intent should preclude inferring a synchronic sensation, much less a diachronic one. By contrast, categorical exclusivity is easier to explain on a model where agency and sensation are perceived at the level of the mind.

Although necessary, however, the moral dyad is not sufficient to capture the criterion of *mens rea* as it applies to moral judgment. Consider the case of accidental harm. Both the law (Bonnie et al., 2010; Malle, 2010) and the judgments of ordinary people (e.g., Cushman, 2008; Killen et al., 2011; Piaget, 1932/1965; Robinson & Darley, 1995; Young et al., 2007) clearly distinguish between intentional and accidental harm. The presence or absence of intentionality has important consequences for judgments of responsibility (Weiner, 1995), wrongness (Cushman, 2008), and blame (Guglielmo et al., 2009; Malle & Guglielmo, 2011). Critically, the difference between an agent that performs an intentional, harmful act and an accidental, harmful act is not whether that agent has a mind (as people in both cases attribute a mind to the agent; Malle, 1999), nor even whether that mind is perceived as agentic *at the level of the mind*. Rather, the critical features are specific mental states—foresight of an outcome (Karlovac & Darley, 1988) and control over one's actions (Alicke, 2000)—*at the level of a specific action*. These mental states are specific in the sense that they apply to a particular outcome and a particular act. If I drop coffee in your lap, typecasting my mind as an agent or experiencer at a general level will not suffice to determine your moral judgment. You need to infer a particular mental state: Did I drop that particular coffee intentionally?

Further evidence that mind perception is not sufficient for blame ascription comes from Gray and colleagues' discussion of autism. They argue that individuals with autism may not perceive the minds of others and thus show abnormal patterns of moral judgment (Moran et al., 2011). However, evidence from Hobson (1984) and Baron-Cohen (1995) shows that autistics are as capable as psychiatric controls at mind percep-

tion in tasks such as visual perspective taking, where it is necessary to first perceive a mind before taking its visual perspective. Instead of appealing to deficits in mind perception, Baron-Cohen, Leslie, and Frith (1985) argue that autistics show a deficit in inferring the specific mental states of others. Taken together, these pieces of evidence suggest that moral judgment depends not only on mind perception but also on mental state inference.

### Actus Reus

So far, we have demonstrated the necessity of both mind perception and mental state inference to moral judgment. Here, we argue that even these two features together are not sufficient to describe the core moral template—an additional essential feature is an act.

A priori, it seems unlikely that people's basic moral schema is *John intends to harm Mary*. And, except in very rare cases, mere intent would not be sufficient for criminal or tortious liability. Rather, a person must actually do something; a more likely schema is *John acts with intent to harm Mary*. Indeed, this action requirement is implicit in the terms that Gray and colleagues frequently use to describe the moral dyad: an *agent* and a *patient*. They assert that agency and patiency are essential elements of moral judgment insofar as they characterize opposing dimensions of mind perception. But we suspect that much of the work of these concepts occurs outside of the perceived mind, namely, in the act that an agent performs and (as we consider in the next section) the causal influence upon the patient.

In support of this claim, Darley, Sanderson, and LaMantia (1996) showed that people assign very little or no punishment to individuals who formed an intention to commit various crimes (e.g., robbery or even murder). Participants in their study did not actually assign substantial amounts of punishment until the agent was in "dangerous proximity" (p. 412) to completing the crime. Robinson and Darley (1995) found similar results, suggesting that people do not begin to blame malicious intentions until they are coupled with action.

Recent work on social inference also supports the act-based schema. Specifically, when reading about or viewing positive or negative actions, people readily infer the mental states of agents (Dillon & Malle, 2011; Malle & Holbrook, 2012). People then reintegrate these mental states with actions before arriving at moral judgments (Cushman, 2008; Young et al., 2007; Young & Saxe, 2009; Zelazo, Helwig, & Lau, 1996). Indeed, this process of recognizing exemplars of the *agent harms patient* schema and of altering our behavior accordingly is so fundamental that infants as young as 6 months and 10 months are capable of doing so (Hamlin, Wynn, & Bloom, 2007).

Although many blameworthy behaviors involve an action, one might still argue that not all of them do.

Take, for instance, the case of harmful omissions, such as failing to throw a life preserver toward a drowning person. Often defined as a lack of action, omissions still receive some blame (Baron & Ritov, 2004). So how might we reconcile omissions with the necessity of action in the core moral template? Although they receive some blame, omissions receive less blame than matched commissions (Baron & Ritov, 2009; Cushman, Young, & Hauser, 2006; Spranca, Minsk, & Baron, 1991). Moreover, to the extent that people blame omissions, research suggests people are, in fact, focusing on the causal role of the agent in bringing about some outcome (Spranca et al., 1991). Possibly, even when faced with an omission, people see an agent's decision not to act as an action. In support of this view, DeScioli, Christner, and Kurzban (2011) suggested that omission should not be viewed as inactivity but rather as a strategy people select in lieu of commission. Cushman, Knobe, and Sinnott-Armstrong (2008) found that people are more likely to characterize a behavior as an action than as an omission when they consider the behavior to be morally wrong. This finding mirrors the phenomenon of dyadic completion: When an action is apparently missing but the agent is considered blameworthy, people tend to "complete" the template by redescribing the agent's conduct as active.

### Causation

Finally, we turn to causation. Like action, causation is implicit in the agency/patency language of the moral dyadic model. Indeed, the canonical usage of the terms "agent" and "patient" specifies causal roles, not mental states. In Gray and colleagues' usage, by contrast, agency and patency are properties of minds, not descriptions of causal roles. Mind perception of an agent depends on the attribution of agentic mental states (e.g., intent), whereas mind perception of a patient depends on the attribution of experiential mental states (e.g., pain). We argue that this conception, although useful, fails to capture a core role that the concept of causation plays in moral judgment.

Unlike mental state inference and action, however, causation is apparently not necessary for a moral judgment (Robinson & Darley, 1995). For instance, an attempted murder involves no causation but surely garners blame. Given this, what suggests that causation plays a core role in moral judgment? Some evidence suggests that causation is an early and essential component in folk assessments of blame (Guglielmo et al., 2009). Other evidence shows causation as an important input (along with mental states) to judgments of punishment and blame (Cushman, 2008; Cushman, Dreber, Wang, & Costa, 2009). In line with both of these, actions with longer or more indirect causal chains receive less blame (Cushman et

al., 2006; Fincham & Roberts, 1985; Paharia, Kasam, Greene, & Bazerman, 2009). Furthermore, for "purity" domain moral violations, such as consensual incest, mental states appear to play a weak role in condemnation—instead, the outcome caused by the agents' behavior dominates moral blame (Young & Saxe, 2011). Feelings of guilt for harmful behavior are also guided more by the harm caused than the harm intended, to the extent that felt guilt for accidental harms exceeds felt guilt for intentional harms (McGraw, 1987).

Still, this constitutes weak evidence for an *essential* role of causation in the basic moral schema. The argument for this essential role begins with a careful examination of attempted crimes. Suppose that John intends to kill Mary by shooting her, so he takes aim and pulls the trigger. But the shot misses the mark and Mary is unharmed. This set of events contains an agent (John), a guilty mental state (intent to kill), and an action (pulling the trigger). People will robustly judge John's action to have been morally wrong. However, it does not involve causation—John does not cause any outcome of moral consequence (to ensure this, let's suppose that nobody ever even finds out about John's action, including Mary, and he never tries again). As we have noted this constitutes the core evidence against the inclusion of causation in the basic moral schema.

Unfortunately, it constitutes equally strong evidence against inclusion of a patient (Mary) in the basic moral schema, because of course Mary is not affected by John's action (if she were, after all, there would also be causation). She does not actually suffer at all. The only sense in which Mary is a patient is in her role as *part of John's intent*. That is, internal to John's mind, as part of his planned action, Mary serves the role of a moral patient. But, of course, at this level causation is equally essential to the dyadic moral schema. Had John not performed an action with the intent to *cause* harm to Mary, there would be no moral wrong (and indeed she would not be an intended patient).

This analysis presents us with a vexing dilemma. On the one hand, we might posit that the basic moral schema constitutes a very detailed mental state attribution: *Agent acts on a plan with foreseen risk of causing harm to patient*. This captures the available evidence quite elegantly, but the template itself looks dauntingly complicated. Moreover, it is not dyadic in the sense that it essentially comprises a detailed description of the mental states giving rise to a single individual's action. The "dyad" exists only within the agent's mind.

On the other hand, we might posit that the basic moral schema is quite simple: *Agent harms patient*. This schema is dyadic, but the dyad is defined as much by a causal relation (*harms*) as by mind perception (*intentional agent; suffering patient*). This rings true as a simple, clear moral template, but it cannot accommodate some very salient data points such as the

condemnation of attempted harms and the exculpation of accidental ones.

Elsewhere, we have suggested that the strict choice between these imperfect alternatives is, in fact, a false choice: Moral judgment is accomplished by multiple competing mechanisms, one of which resembles the more detailed template and one of which resembles the simpler one (Cushman, 2008). Moreover, it has been claimed that the child's development of moral judgment from about 4 to 8 years is characterized by a shift from (roughly) the simple to the more complex template (Kohlberg, 1969; Piaget, 1932/1965). In some sense, this entails incorporating an objective moral schema (*agent harms patient*) into a subjective perspective (*agent acts intending [agent harms patient]*).

### Does the Dyad Capture It All?

Gray, Young, and Waytz summarize their position as follows: "The essence of moral judgment is the perception of two complimentary minds—a dyad of an intentional *moral agent* and a suffering *moral patient*" (p. 101). As we have noted, elements of both action and causation are implicit in the language of agency and patiency. Thus, our critique may appear to miss the mark. By noting the essential roles of action and causation, have we merely emphasized elements of the dyadic model that were implicit in it from the very beginning?

Yes, and no. We are convinced by Gray, Young, and Waytz's analysis that a core moral schema involves an agent intentionally causing a patient to suffer. Insofar as *mens rea*, *actus reus*, and causation are implicit in this dyadic model, it captures much of what we know from accumulated analyses of moral judgment in philosophy, law, and psychology. It does so in an impressively spare framing, and Gray, Young, and Waytz illustrate how thinking in terms of a dyadic schema leads to novel experimental findings, such as moral typecasting and dyadic completion.

The trouble is in Gray, Young, and Waytz's explicit characterization of the moral schema, whatever it may imply implicitly. The title of their article says it all: "Mind Perception Is the Essence of Morality." In other words, the necessary inputs into the process of moral judgment are the perceptual identification of a mind with intent to harm and a mind that suffers. As we have argued, there is ample evidence that this explicit characterization of the moral dyad fails to capture core elements of moral judgment.

The moral dyad is well worth keeping. But its explicit characterization must include several of the implicit elements we have identified: specific mental state inferences, voluntary action, and a causal relation between agent and patient. Such an explicit characterization would resonate well with extant models of moral

judgment (Alicke, 2000; Cushman, 2008; Guglielmo et al., 2009; Shaver, 1985; Weiner, 1995).

### Conclusion

In this article, Gray and colleagues attempt to unify many disparate ideas on morality and social cognition. They succeed in (a) adding to the distinctions between mind perception and mental state inference, (b) offering a simple yet powerful perceptual model that is necessary (but not sufficient) for moral judgment, and (c) using that model to explain two novel phenomena (dyadic completion and moral typecasting). However, their model requires a more precise treatment of mind perception versus mental state inference, as well as more explicit inclusion of action and causation. We conclude with some suggested future directions and predictions aimed at addressing these issues.

First, our analysis suggests an extension of dyadic completion: A negative moral judgment should lead people to infer the presence of an action and causation. As we have noted, there is already some evidence for this extension of dyadic completion. People are more likely to describe a person as actively causing an outcome (rather than passively allowing the outcome to occur) when they consider the action morally wrong (Cushman et al., 2008).

Second, our analysis suggests an extension of moral typecasting. For instance, a person who has intentionally harmed another might be seen not only as less capable of suffering mental states in particular but also as less of a causal patient generally. Conversely, a person who has suffered from another's actions might be seen not only as less capable of forming intentions but also as less capable of actively exerting a causal influence on the world. In addition, the effect of typecasting might be reduced if the "roles" fail to be instantiated in actual causal relations, for instance, if the role of moral agent is occupied by a person who intends harm but fails to ever act on the intention, or who acts but fails to cause harm.

So far, at least to our eyes, the dyadic model sketched by Gray, Young, and Waytz fails to conjure a bull. But it is an admirable advance and an ideal blueprint for further refinement.

### Note

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