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Article *in* Journal of Cognition and Culture · August 2008

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Descartes' Mistake: How Afterlife Beliefs Challenge the Assumption that Humans are Intuitive Cartesian Substance Dualists

K. Mitch Hodge*
Institute of Cognition and Culture, Queen's University Belfast,
2 Fitzwilliam Street, Belfast BT7 1NN, UK
* E-mail: Kmitch.hodge@gmail.com

Abstract
This article presents arguments and evidence that run counter to the widespread assumption among scholars that humans are intuitive Cartesian substance dualists. With regard to afterlife beliefs, the hypothesis of Cartesian substance dualism as the intuitive folk position fails to have the explanatory power with which its proponents endow it. It is argued that the embedded corollary assumptions of the intuitive Cartesian substance dualist position (that the mind and body are different substances, that the mind and soul are intensionally identical, and that the mind is the sole source of identity) are not compatible with cultural representations such as mythologies, funerary rites, iconography and doctrine as well as empirical evidence concerning intuitive folk reasoning about the mind and body concerning the afterlife. Finally, the article suggests an alternative and more parsimonious explanation for understanding intuitive folk representations of the afterlife.

Keywords
Cartesian substance dualism, intuitive, mind–body problem, afterlife beliefs, intentional stance

Once again Cartesian substance dualism[1] has reared its ugly head (or should one say "mind"?). The theoretical position which was so vehemently attacked as archaic thinking in the past century has reemerged as a viable research paradigm in philosophy, psychology and anthropology. This time, however, rather than scholars claiming that Cartesian substance dualism as a sophisticated

[1] The reader is likely to feel that I use the phrases "Cartesian substance dualism/dualist" *ad nauseam*. I use these phrases, however, to make sure that the reader understands that I am not attacking the position that claims humans are dualistic thinkers in the broad sense – that is, they tend to conceptually sort information from the environment into mutually exclusive categories (Lakoff, 1987). I do not deny that such is the case. What I am challenging, however, is the specific claims made by researchers that humans are intuitive Cartesian substance dualists.

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theoretical position explains, upon reflection, the true nature of ourselves, researchers are claiming that humans – all humans – are *intuitively* Cartesian substance dualists. The tables have turned. Rather than Cartesian substance dualism being the sophisticated and informed position of the reflective and well-studied academic, the position is now considered the default position of the common, everyday, ordinary folk.

The claim, therefore, is that humans intuitively understand themselves as being immaterial minds which have or use physical bodies. What distinguishes Cartesian substance dualism from other types of mind/body dualism is that humans are *not considered to be both* minds and bodies,[2] but *minds alone*. They are, in the words of Descartes (1993/1641), *thinking things* (*res cogitans*). This claim has been assumed across disciplines: for instance, in philosophy, by Daniel Dennett (2006), Colin McGinn (1999), Philip Robbins and Anthony Jack (2006), and Shaun Nichols (2006); in psychology by Paul Bloom (2004), Pascal Boyer (2001) and Justin Barrett (2004); in anthropology by Emma Cohen (Cohen and Barrett, 2008) and Rita Astuti (2001); and in biology by Richard Dawkins (2006).

By far, the most vocal defender of this claim has been Bloom. Consider, for example, the following claims he makes in two recent publications:

> I will suggest that humans have evolved a certain way of thinking about people and objects. We see the world along the lines proposed by René Descartes, the father of modern philosophy.
>
> ....He believed the bodies of humans and animals to be nothing more than intricate machines. But for people – unlike nonhumans, whom Descartes described as 'beast-machines' – there is a crucial distinction between *res extensa*, our physiological machinery, and *res cogitans*, which is our selves, our minds. We use our bodies to experience and act on the world, but we ourselves are not physical things. We are immaterial souls.
>
> We can explain much of what makes us human by recognizing that we are natural Cartesians – dualistic thinking comes naturally to us. We have two distinct ways of seeing the world: as containing bodies and as containing souls. These two modes of seeing the world interact in surprising ways in the course of development of each child, and in the social context of a community of humans they give rise to certain uniquely human traits, such as morality and religion. (Bloom, 2004, p. xi–xii)

[2] Charles Taliaferro (2001) considers compound mind/body dualism which he, as a Cartesian substance dualist, takes to be closer to the commonsense position of the folk. Compound mind/body dualism is the view that a human's identity and essential nature is *both* the immaterial mind and the physical body. Taliaferro argues that this position is incoherent and inconsistent for a variety of reasons, none the least of which is the problem of maintaining the identity of an individual after bodily death.

And,

> It is not controversial that young children naturally make sense of physical entities in different terms than psychological entities: naïve physics is different from naïve psychology. The claim explored here is considerably stronger. It is the idea that we think of bodies and souls as *distinct*; we implicitly endorse a *strong* substance dualism of the sort defended by philosophers like Plato and Descartes. (Bloom, 2006b, p. 8, emphasis added)[3]

Bloom is condensing several assumptions into the above statements. First, he is suggesting a Cartesian substance dualist interpretation of empirical evidence such that humans intuitively see bodies and minds as different substances; bodies are material and minds are immaterial. Second, he is making the assumption, in line with the Cartesian tradition (Wellman and Johnson, 2007), that mind and soul are intensionally identical. Third, he is strongly asserting that identity of persons is solely established through the mind/soul – also in line with the Cartesian tradition.

I will argue that Bloom's assumptions are likely incorrect. To be clear, my arguments are *not* meant to imply that humans cannot think in terms of Cartesian substance dualism; for there is ample evidence to the contrary, such as Descartes himself. The arguments are more subtle – that *Cartesian substance dualism is not the intuitive position* as has been claimed. I will argue, specifically with regard to afterlife beliefs which are pandemic across human cultures, that the hypothesis of Cartesian substance dualism as the intuitive position of the folk fails to have the explanatory power with which its proponents endow it. This focus is chosen for a reason – namely, that if there is a case in which Cartesian substance dualism should be clearest as the intuitive position, it should be the case of death. According to Cartesian substance dualist interpretation of afterlife beliefs, the physical body is abandoned at death, yet the immaterial mind/soul is claimed to maintain the existence of the individual. This paper presents various cultural representations and philosophical and theoretical concerns which challenge the Cartesian interpretation of afterlife beliefs. Finally, an alternative explanatory interpretation is provided which is parsimonious in resolving those challenges.

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[3] Plato was not a substance dualist in a manner consistent with Descartes. Plato believed in immutable forms in which all material things participated. This is not the type of dualism for which Descartes argued. In addition, specifically on the topic of humans, Plato held to a tripartite division of the soul, not a dualistic one (see Cooper, 1997). The person consisted of reason (the mind), spirit (the will) and the appetitive (bodily desires). See the section on cultural representations, the deceased and the afterlife below.

Before proceeding with these challenges, however, there is a need to understand what is meant by intuitive in this context.

On Intuition

The words "intuition" and "intuitive" are used and appealed to in a number of ways in the relevant literature for our present problem. Certainly none of the participants in the present debate, however, are appealing to intuitive in the Cartesian sense of perceiving clearly and distinctly (Descartes, 1993/1641; Lakoff and Johnson, 1999). Instead, intuition has been tied to words and phrases such as: "common-sense", "natural", "innate", "disposition", "expectation", "universal" and "implicit perception".[4] What is clear from all these uses, however, is that intuition stands in contrast to a deliberative, critically reflective and conscious thinking process. An intuitive belief is dispositional and is formed without the subject being aware of the mental processes involved in making or justifying that belief (Sperber, 1997; Gopnik and Shwitzgebel, 1998; Haidt, 2000). In line with common usage, when someone is said to give an intuitive answer, that answer, if intuitive, is given spontaneously and without critical reflection.

To say that a *position* is intuitive implies three things: (1) that humans have a cognitive disposition for a certain set of intuitive beliefs which are causally related;[5] (2) that humans engage this certain set of intuitive beliefs without critical reflection; and (3) that this certain set of intuitive beliefs are the cognitive default. Thus, in the context of this discussion, the basic claim that humans are intuitive Cartesian substance dualists means:

1. Humans have a cognitive disposition for representing bodies as physical and minds as non-physical.
2. Humans represent bodies as physical and minds as non-physical unreflectively.
3. By default, humans represent bodies as physical and minds as non-physical.

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[4] See Neisser (1968); Boyer (1996, 2000); Sperber (1997); McCauley (2000); Pyysiainen (2003); Bloom (2004, 2006) and Officer (2005) for examples of these uses of the word "intuitive".

[5] This is in line with Dan Sperber's (1997) analysis of intuitive beliefs. Causally related beliefs are "obvious" (non-epistemically derived) consequences of holding a specific related belief such as the belief that there are no kangaroos on Mars is an obvious causal consequence of the belief that there is no life on Mars.

Bloom's stronger endorsements of Cartesian substance dualism as the intuitive position of the folk also mean that humans must, in the same fashion, intuitively think of identity of persons as being only established by minds and that mind and the soul are the identical immaterial substance.

It seems reasonable to assume that if Cartesian substance dualism is the intuitive position then it should be most apparent when there is supposed to be the clearest demarcation between the mind and the body. This time would be the death of an individual, when according to the Cartesian tradition the mind is believed to be separated from the insensate body. It, therefore, seems reasonable to posit that the folk would intuitively represent the deceased individual as a wholly mental, immaterial subject.

Immediately, however, Bloom's account encounters a logical problem. Despite his claim that humans are intuitive Cartesian substance dualists, he states (following Boyer, 2001):

> The criterion of interestingness is obvious: supernatural entities have to be interesting, because if they were not memorable and worth talking about, they would never spread throughout culture and be sustained over time. Boyer suggests that they become interesting by violating some aspect of our commonsense understanding: they are counterintuitive. This is true almost by definition: if the notion did not violate our commonsense understanding of reality, why would we think of it as supernatural in the first place? Ghosts are immaterial people, their immateriality being interesting and easy to remember and worth talking about because it violates our usual experience that people can be seen and touched. (Bloom, 2004, p. 210–211)

Here Bloom argues that our *intuitive* conception of deceased individuals violates our commonsense and is counterintuitive. In spite of his claim that humans are intuitively dualistic, he is forced to argue that this dualism is in fact counterintuitive.[6] Bloom offers no relief for this apparent contradiction, and it appears to go unnoticed by him.

Cultural Representations, the Deceased and the Afterlife

The position that humans are intuitive Cartesian substance dualists is unfaithful to cultural representations of the deceased and the afterlife. It is reasonable to assume that if a Cartesian interpretation is to be given both an evolutionary and developmental foundation, and if Cartesian substance dualism is the intuitive position, then evidence for such a folk psychology should be widespread

[6] Stewart Guthrie (Guthrie, 2007) raises the same problem for Boyer's intuitive categories.

throughout human history and culture. Cartesian substance dualism, however, does not map cleanly onto many artifacts of human history and culture in areas where one would suppose, reasonably, that a mind/body distinction should be apparent. These artifacts of human history include rituals of disposing of bodies, mythology, iconography and religious doctrine.

Funerary Rites

Under the Cartesian paradigm, since all personhood is attributed to a disembodied mind, there should be little respect given to the body after death. At death, the body becomes merely an empty shell or container. The body, under this paradigm, stands in a similar relation to the mind/soul as a wrapper to a piece of candy. What is important and what confers the value is what is contained in the wrapper, not the wrapper itself. Once the candy is removed, the wrapper is discarded. Yet, through time and across cultures, it is the norm to treat bodies of the dead with great respect and value. While there are the occasional exceptions, such as the funerary rituals of the Parsis – modern day Zoroastrians – where the bodies of the deceased are left outside for the elements and scavengers to dispose of, they are hardly the norm. This is a problem that Bloom acknowledges, but his response to this problem only serves to beg the question of why, if we are intuitive Cartesian substance dualists, would we respect the body at all. He writes:

> The problem with souls is that they are invisible and intangible. As the philosopher Ludwig Wittgenstein put it, 'The human body is that best picture of the human soul.' When we wish to commune with the dead, we often go to their grave sites. This is as close as we can get. And to the extent that a soul lives on, it is an act of respect and kindness to care for its most prized possession – and what would that be if not its body? Furthermore, under many religious views, the body must be treated with care in order for the soul to make it safely to its final destination. (Bloom, 2004, p. 205) [7]

Bloom is assuming that the reason for which we care for the body is because we are Cartesian substance dualists, and we view the body as a possession of the deceased rather than, at least in part, as the deceased themselves (see also page 192). Yet, visiting gravesites does little to alleviate the problem why humans dispose their dead in the manner they do. Numerous cultures have buried their dead with objects of great value, with food, with slaves, with guards, with domesticated animals such as pets and horses, and even with kin

[7] The quote from *Philosophical Investigations 2* was intended by Wittgenstein to be taken as an objection to Cartesian substance dualism.

(Pearson, 1999).[8] It is difficult to imagine what any of these would benefit a disembodied mind. Moreover, the fact that many cultures have sought to preserve the body long term – that is, past the point where anyone would care to visit their gravesite – is also telling. It suggests that there is a further need for the body even after death.[9] Finally, even if it is the case that the body must be cared for according to religious tradition, it is logically impossible for an *immaterial* soul to have a destination, since a destination implies location and this only applies to physical objects.

Mythologies

One would also think that if humans were really Cartesian substance dualists, then this would be reflected in mythologies across human cultures. This expectation is not untoward given the recent successes of Jonathan Gottschall in identifying universal biological and psychological traits as predicted by evolutionary theory represented in both mythology and folktales (Gottschall, 2001; Gottschall *et al.*, 2003). Surprisingly, however, there are few instances in myths where a mind/body substance dualism can be attributed to a myth without an elaborate interpretative framework. Assuming that the Cartesian paradigm is correct, the norm should be that the dead would communicate with the living by direct mind to mind communication – that is, telepathy – since disembodied minds can be neither visible nor audible. Instances of this would be where people believe that the dead communicate with them through their dreams or when they attribute their thoughts to a deceased person. While these beliefs exist, they are not the norm. Most mythological literature (and even in cultures where beliefs that the dead communicate through dreams or thought exist) contains stories about actually seeing, hearing, and even feeling the deceased. In the *Epic of Gilgamesh*, Enkidu communicates with Gilgamesh through a dream, but later appears reincarnated. In addition, Gilgamesh makes the journey to visit the long deceased Utnapishtim who is described in bodily form. Odysseus and Heracles both make the journeys to the underworld where they visit and interact with corporeal agents. And in the *Bible*, while Jacob does fight with a supernatural agent in his dream, and God informs

[8] Bloom acknowledges this problem as well (Bloom, 2004, p. 204) but offers no response other than in the quote provided.

[9] Cremations might, at first, seem to fit well with the Cartesian substance dualist paradigm. But, in ancient Greece where crematory rites were performed, the deceased were described as an embodied shade which had a specific physical location and determinate size and were recognizable as the same person. Furthermore, as in Odysseus' visit to the underworld, the shades could drink, at least blood, which would, for a time, allow them to speak. This demonstrates that even in cases of cremation, embodiment is still considered to play a substantial role in the afterlife.

Joseph through his dreams, frequently deceased and other supernatural agents are represented corporeally such as in the transfiguration with Jesus, Moses and Elijah, as well as Jesus physically (according to Luke 24:39)[10] returning from the dead and physically ascending to Heaven. In all these cases, the deceased are visible, they speak audibly, and are tangible (even if just to a select person or a few), and they are represented as being recognizable by some physical characteristic. A Cartesian interpretation has to be forced onto such myths, and the physical characteristics often vividly described have to be (not so) delicately done away with.

The embodiment of deceased individuals is often noted in narratives which rely on mythological themes. For instance, Brian Cornwell, Aron Barbey, and W. Kyle Simmons (2004) note that ghosts are governed by principles of physical embodiment in the manner by which they interact with the world. Additionally, Carol Zaleski (1987), in an historical and comparative analysis of near-death experiences, posits the following concerning the importance of the embodiment after death, particularly in regards to making it a socially salient and memorable story:

> In order to fulfill its narrative purpose of engaging interest and its didactic purpose of impelling the audience from ideology to action, it [the otherwordly journey] must portray the afterlife as an active realm, and the soul as a protagonist whose experiences epitomize and interpret those of earthly life. If the soul must take on the shape of a body for that purpose, then so be it; if near-death visions had to conform to requirements of abstract philosophical theology they would make dull stories indeed.
>
> In the context of religious storytelling then, it is not necessarily progress when, in deference to subtler understandings of spiritual perfection, we pluck off limbs, erase features, and shave our image of the soul to a bald symmetrical bit of geometry, incapable of motion or life. (p. 193)

Iconography

While it is hard to imagine (and some might say impossible to imagine) iconography that would attempt to represent the deceased as a disembodied mind, if the Cartesian paradigm were correct, depictions of the deceased would at least try to represent them in such a way that it is understood that they are not embodied. Yet, members of the afterlife are often unabashedly represented with bodies, and not just some shadowy stem of a body, but rather a complete detail specific body with all of the normal appendages intact (see Figures 1–4 below).

[10] Bloom (2004) quotes this passage on page 204.

Figure 1. Christian afterlife.

Doctrine

Historically, the body is not placed into direct opposition with the mind/soul doctrinally as one would expect if Cartesian substance dualism were indeed the intuitive position. In various ancient religions the person was considered to have three parts, all of which were necessary for identity and survival in the afterlife. For the Egyptians, humans were seen as a combination of body, personality and life force. Resurrection of the body was essential for the afterlife (Kirk, 1970; Frankfort, 1977). Likewise, in classical Greek philosophy and religion, humans were believed to be composed of three parts; reason (the

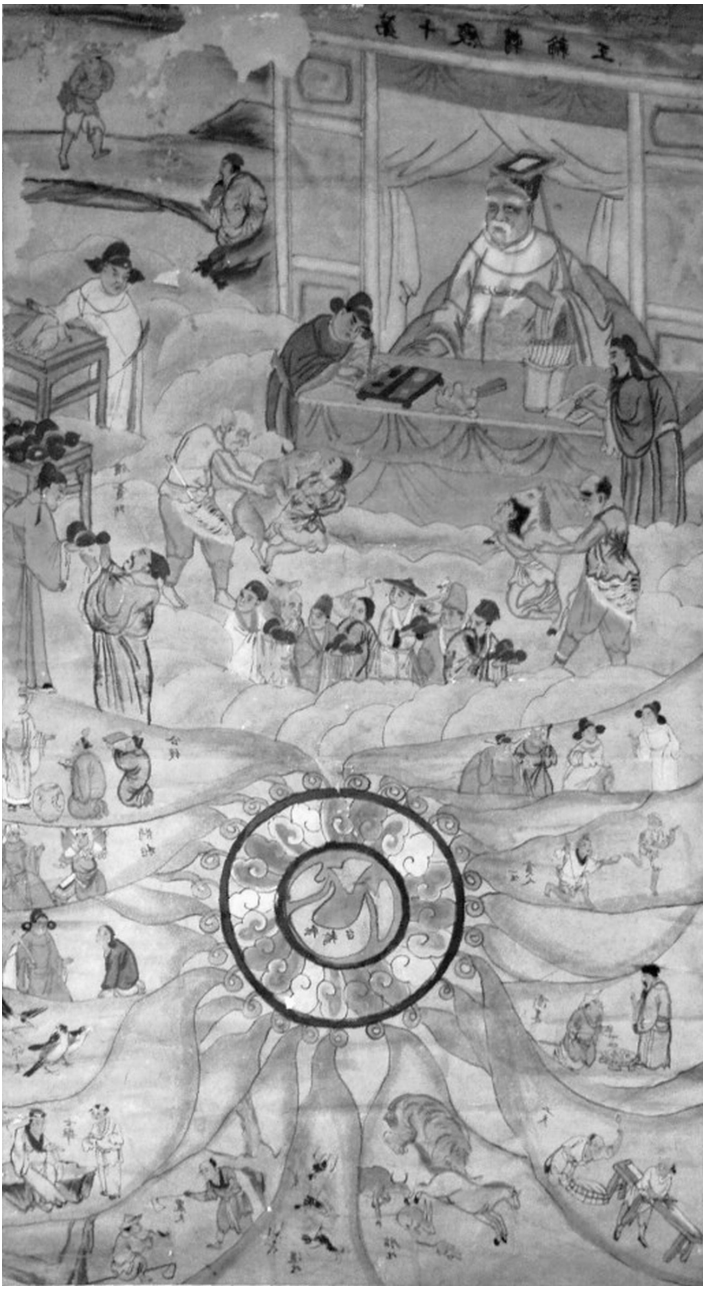

Figure 2. Chinese afterlife.

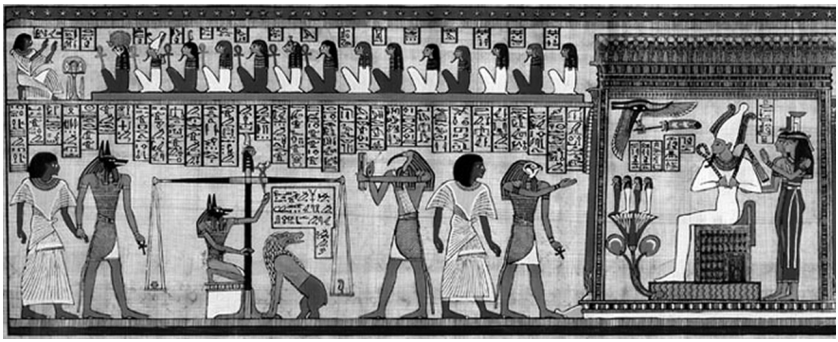

Figure 3. Egyptian afterlife.

Figure 4. Reclining Buddha entering Nirvana.

mind), spirit (the will) and appetitive (the bodily desires). Here again, all three parts continued in the afterlife (Vernant, 1982; Cornford, 1991; Mikalson, 1991; Rose, 1995). It should also be noted that this was the position proposed and defended by Plato throughout the *Republic*. In the portions of those dialogues where he is interpreted to be giving dualistic accounts (in the *Phaedo* and Book X of the *Republic* (Cooper, 1997)), they are introduced as *eikos muthos* – that is, "likely stories" introduced as simplified pedagogical tools to convey his philosophical point, rather than be his philosophical point (Brisson, 1998; Forsyth, 1980). Finally, and most importantly, in the Christian religion the tripartite division is again found in the body (*soma*), soul

(*psyche*) and spirit (*pneuma*). All three parts were necessary for the afterlife and resurrection of the body and this is still the official doctrine of the Catholic Church (Highwater, 1991; Coakley, 1997; Louth, 1997; Martin and Barresi, 2006; Sorabji, 2006).

An objection might be raised here following the distinction introduced by Justin Barrett and Frank Keil (1996) between doctrines as "theologically correct" views – which are produced given theological and philosophical considerations – *versus* "theologically incorrect" views – which are the intuitive views of the folk concerning religious matters. One might object that the doctrinal views presented above are merely the theologically correct views of religious traditions concerning composition of humans and as such do not represent the intuitive, theologically incorrect view of the folk. The intuitive, theologically incorrect view is Cartesian substance dualism.

There are several replies to this criticism. First, it is an independently interesting point to note is that none of the doctrinal views presented are dualistic, especially in the Cartesian sense. Second, it seems strange to assert that doctrines do not reflect intuition in any way. It would make little sense if the theologically incorrect view diverged so far from the theologically correct view that they could not be reconciled in the minds of the religious followers. Third, it is not immediately clear how cross-culturally differing tripartite components required for identity as a person could so easily be reduced to a mind as the sole provider of identity, especially given that only one of the doctrines (Plato's) explicitly includes mind. This leads to the fourth point which requires that we accept that humans universally conceptualize the mind as having the identical intension as the soul. Yet, as Angeline Lillard (1998) points out, cross-cultural ethnographies suggests that there are several cultures that have no conceptual corollary to the European-American intension of 'mind.'[11] Thus, for this objection to have merit, it must first be clear that theologically incorrect views of persons, cross-culturally, have available to them a conception which is intensionally identical to our concept 'mind' *and* that they view the mind as the sole provider of personal identity.

All the cultural representations of deceased individuals and the afterlife just discussed share a common theme which is antithetical to a Cartesian substance dualist interpretation. In the case of funerary rites, mythology, iconography and religious doctrine, embodiment still plays an essential role in the make-up and identity of the person. The person is never depicted as being a

[11] It is also not clear that even in Europe and America that people have the same intensions for the concepts of "mind" and "soul". This will be discussed in the section on theoretical problems for the intuitive Cartesian substance dualist position.

mind/soul only, but rather as an embodied being which can interact in both this world and the next.

Philosophical Problems for the Intuitive Cartesian Substance Dualism Position

Under usual circumstances, one should feel a strong reservation toward subjecting and holding a folk position to a standard of philosophical rigor which demands coherence and consistency. These are not, however, usual circumstances. Recall that Bloom asserts that humans "implicitly endorse a strong substance dualism of the sort defended by philosophers like Plato and Descartes" (Bloom, 2006b, p. 8).[12] Given that the claim is that humans *implicitly endorse strong* substance dualism, while one should not expect the folk to explicitly express Cartesian substance dualism and its defense, it is reasonable to expect that the folk should have at least an implicit understanding and agreement with Cartesian substance dualism and its defense. Since Cartesian substance dualism is the intuitive position, the folk should also hold those beliefs which are obvious consequences of those beliefs, and as such should not assent to claims which were blatantly contradictory to that intuitive position.

Many contemporary materialist philosophers appear to agree with this assessment. They further assert that this folk Cartesian substance dualism is closely tied to folk religion. McGinn (1999), for example, goes so far as to call the folk position *theistic* dualism, and Mark Johnson sees it as "deeply rooted in certain interpretations of the Judeo-Christian tradition" (1987, xxvi). Shaun Nichols goes even farther: He argues that not only does this folk position fit with humans' intuitive worldview, but that humans are motivated to hold such a view to secure "immortality, separateness, and freedom" (Nichols, 2006, p. 318). These motivations described by these philosophers are (in part) the same which motivated Descartes.

Mental Causation

When Cartesian substance dualism is considered from the vantage point of an afterlife, there is one philosophical problem that worsens for those who endorse (implicitly or otherwise) Cartesian substance dualism as a folk position; for it is writ large in the afterlife. Cartesians have had enough problems trying to explain how a disembodied mind interacts with its *own* body with which it has a supposed intimate connection, but when the body is disposed of completely

[12] As mentioned earlier, however, Plato was not a substance dualist concerning persons.

the problems are multiplied. The deceased, in a wide variety of ways, are described as interacting with the living and affecting events in people's lives (Bering and Johnson, 2005). How is it possible for a deceased person to do this if she is a disembodied mind with no access to a body? How can a disembodied mind affect the physical world of the living? Richard Sorabji invites his readers to consider this possibility intuitively through a thought experiment:

> Suppose that you sit alone in your room, you notice that your foot seems to be disappearing from view and that you cannot feel it either. Gradually the disappearance spreads up your legs and then the rest of your body leaving your clothes in a crumbled heap. Last to go is your voice, and then you could no longer have any direct effect on what was going on. But would you have ceased to exist, or would you rather be surveying in helpless horror the scene that you had vacated? (Sorabji, 2006, p. 305)

Sorabji demonstrates through this intuitive experiment that we would have difficultly both imagining our existence and our affect on the world if we were disembodied minds. Inasmuch as people would have difficultly imagining their own affect on the world (not to mention their own existence), it would seem equally difficult and unintuitive to believe that the deceased are disembodied minds that affect the world. If the folk really are Cartesian substance dualists, then it is incumbent on researchers to investigate how the folk attempt to resolve this problem either implicitly or explicitly.

Identity, Personhood and Embodiment

Philosophers who *are* Cartesian substance dualists understand, however, that their position is a highly complex and sophisticated intellectual position and are dubious that the folk subscribe to their position. The substantial issue for these philosophers is that the folk put emphasis on the body for identity and personhood which is antithetical to the Cartesian position that identity and personhood is conferred by the mind/soul alone (Foster, 2001; Taliaferro, 2001). As Foster explains:

> For in our ordinary system of thought, what we primarily think of as the subjects of mentality are… things with corporeal natures. Thus our standard practice is to ascribe mentality to people and animals, conceived of as entities which have shape, size, and material composition. Nor, at that ordinary level of thinking, does it occur to us that the ultimate subjects might really be certain immaterial and spatially unlocated entities with which these corporeal subjects are in some way associated. So, at this point… the Cartesian view and our commonsense outlook stand in sharp contrast. (Foster, 2001, p. 24)

Emphasis on this material nature of persons even after death is also found in the ordinary language of the folk. Casual conversation with those who have lost someone they love neither implicitly nor explicitly endorse Cartesian substance dualism. The bereaved speak of their loved one as now being in a particular place (e.g., Heaven) and able to perceptually interact with them (e.g., watching over them, hearing their prayers, etc.). Moreover, in describing their deceased loved one's *current activities* (even if counterfactually), they describe them in a way that is still appropriate to the type of social relationship that they had with the deceased and the decedent's social identity.[13] In other words, the social relationships are not severed at death; fathers are still fathers, grandmothers are still grandmothers and friends are still friends.

The embodied nature of deceased individuals described in ordinary language of the folk appears to be antithetical to the Cartesian substance dualist interpretation of the afterlife. As philosopher Jaegwon Kim explains:

> Spirits and souls as conceived of in popular lore seem to have physical properties as well, if only vestigially physical ones, and are not what Descartes and other philosophical dualists would call souls or minds – wholly immaterial and nonphysical substances outside physical space with no physical properties whatever. For example, souls are commonly said to *leave* the body when a person dies and *rise upward* toward heaven, indicating that they are thought to have, and are able to change, locations in physical space. And they can be heard and seen, we are told, by people endowed with special virtues and in especially propitious mental states. (Kim, 2001, p. 30)[14]

Perhaps it is unreasonable to expect the folk, of their own accord, to have insightful and consistent explanations for these philosophical issues just discussed. Nevertheless, it does seem reasonable for those who advocate that the folk are intuitive Cartesian substance dualists to provide a research project which demonstrates how the folk cope with such philosophical problems in a manner by which the folk implicitly and consistently endorse Cartesian substance dualism. It is unlikely, however, that such a research project could provide such a demonstration because the folk are not intuitive Cartesian substance dualists after all.

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[13] My own personal conversations with my relatives concerning the several loved ones we have recently lost has instantiated this position.

[14] Bloom (2005) also puts the soul into physical language: "It might ascend to heaven, descend to hell, go off into some sort of parallel world, or occupy some other body, human or animal".

Theoretical Problems for the Intuitive Cartesian Substance Dualist Position

In this section, empirical evidence is introduced to weigh in on the three assumptions of intuitive Cartesian substance dualism by the lights of afterlife beliefs we have been considering. First, there is evidence that humans do not intuitively represent deceased individuals as disembodied minds. Second, the evidence shows that humans do not have identical intensions for the concepts 'soul' and 'mind.' Third, evidence suggests that identity of persons is not conferred by the presence of minds alone.

Disembodied Minds

Under the Cartesian interpretation, deceased individuals should be intuitively represented by the living as disembodied minds. A potential problem for this interpretation, however, is indicated by the findings of Barrett and Keil (1996) concerning people's intuitive reasoning about God. In Christianity, the "theologically correct" understanding of God is that of the ultimate disembodied mind that has no spatial (i.e., physical) or temporal constraints. When participants, however, are presented with a vignette about God's actions in a way which is neutral concerning time and space, the participants recount those actions to the experimenters in such as way that demonstrates that they reason about God as if He is spatially and temporally constrained (e.g. God can only be in one particular place performing one action at a time, sequentially). This raises an important question: if people cannot reason about the ultimate disembodied mind (God) without imposing bodily constraints, is it reasonable for us to expect that they can reason about lesser beings, the deceased – whom they have known as embodied individuals – as disembodied minds (see also Cornwell *et al*., 2004, for a similar criticism)?

Paul Harris and Marta Gimenez (2005) also present experimental evidence which challenges the Cartesian interpretation of the afterlife. They examined afterlife beliefs among children, in particular whether they reasoned that biological and mental processes continue after death when presented with one of two vignettes, secular or religious. In the secular vignette, a fictitious child was told of the death of a grandparent by a doctor; whereas in the religious vignette, the child was told of the death by a priest. Among older children (11-year-olds), when presented with the religious vignette, there was a significant decrease in discontinuity responses – meaning that the processes would have stopped at death – for both the bodily and mental processes. Even more interesting (but perhaps not significant without access to the raw data) was that the difference in the number of questions to which the children gave discontinuity

responses concerning mental processes versus the bodily processes was only one question (out of six). Therefore, the religious prime in the vignette not only prompted children to respond that mental processes continue after death, but also bodily processes. This is not the result one would expect if the intuitive position was Cartesian substance dualism.

Mind qua Soul

Moving to the second assumption, there is evidence that humans do not equate the mind with the soul as Cartesian substance dualism alleges. In a study by Rebekah Richert and Paul Harris (2006), children understood that the mind and the brain performed similar cognitive functions, and reported that the soul preformed functions which were different from the mind's and the brain's functions. In particular, children stated that the soul was an animating force that acted as their moral compass, conferred identity and allowed for a connection with the divine.[15] Interestingly, in our ordinary language, metaphors about the soul are easily translated to metaphors about the heart; such as "God touched my heart/soul", "I knew in my heart/soul that this was wrong", "I love them with all my heart/soul" and "I put my heart and soul into it". In other words, the soul, at least in Western culture, is more intimately connected with an indispensable body part—the *heart*—than it is with an immaterial mind (see also Gottfried and Jow, 2003).

This connection between the heart and the soul leads to a tangential problem for Cartesian substance dualist interpretations. The heart is also metaphorically tied to the emotions, particularly strong emotions such as love and grief. The tie between emotions and the body has caused emotions to be excluded from Cartesian descriptions of the disembodied mind (Damasio, 1994, 1999). The Cartesian view of the mind emphasizes the rational; therefore, it is not a view that accounts for lower level psychological states such as emotions and desires as being part of the mind/soul.

It is clear that certain emotions and desires, particularly if they are affectively positive and/or strong (e.g., love), are stated to survive death (Bering, 2002, 2006; Bering and Bjorklund, 2004; Bering *et al.*, 2005). This is troublesome for the Cartesian substance dualist interpretation. Emotions are metaphorically and physically tied to the body (Lakoff and Johnson, 1980, 1999; Lakoff, 1987; Gottfried and Jow, 2003). We have gut feelings which are indeed visceral. We feel our heart pound when we are in love or afraid. Our bodies are

[15] In a personal anecdote provided by Bloom (2006b), Bloom's son Max claims that the soul carries out similar functions as those reported by Richert and Harris.

tense when we feel anxious. It is difficult, therefore, to see how these states, even if described as psychological states, can be represented as pure mental, thinking states as the Cartesian substance dualist interpretation requires. In other words, it is not clear that the Cartesian substance dualist account can accommodate a large part of what it is to be a person, our emotions.

Mind and Identity

With regard to the third assumption that identity is conferred by minds alone, Emma Cohen and Justin Barrett (2008) present a study in which humans do reason that this is the case. The authors presented individuals with a vignette about a mind transplant. One of two young female students received the mind of the other. One was good at math, while the other was not. As one might expect, if the student who was poor at math was transplanted with the mind of the other who was good at math, then she would now perform well on a math exam. These results, Cohen and Barrett argue, supports Bloom's claim of an intuitive mind/body dualism. What they in fact show, however, is not that the participants intuitively *believed* in mind/body dualism, but that they could reason counterfactually about a mind transplant. Recall that my thesis is not that humans cannot reason in a Cartesian way, but rather that they do not do so intuitively. This would be the same as if one were presented a vignette concerning a mythical creature such as a unicorn. They might reason that unicorns like to eat hay, enjoy galloping in meadows, and so forth. But simply because they can reason counterfactually about unicorns does not suggest that people believe that unicorns actually exist. Likewise, just because people can reason about what the world would be like if there were a mind/body dualism does not demonstrate that they actually believe in a mind/body dualism. Nevertheless, their findings do seem to indicate that if a mind were somehow transplanted into the body of another, then identity follows the mind. But, does this mean that humans intuitively believe that the mind is immaterial and solely responsible for identity?

Ramaswami Mahalingam and Joel Rodriguez (2006), however, ran a similar but unrelated experiment to that of Barrett and Cohen's. This time, people were asked to reason about the counterfactual situation of a brain transplant, and how the identity, capacities and aptitudes of a person would change if they were the recipient of such a procedure. Interestingly, Mahalingham and Rodriguez's results closely paralleled those of Barrett and Cohen's. Even more interestingly, their study showed that if one's brain was transplanted into another's body of a different race or class that the person's identity who supplied the brain would be effectively changed. This study, in juxtaposition to Barrett and Cohen's study, demonstrates that humans do not intuitively sepa-

rate the mind from the brain as strongly as Cartesian substance dualism mandates, and that identity is conferred not only by our mental aspects, but also by our bodies as well.[16]

Bering and Bjorklund's Study of Developmental Afterlife Beliefs

Let us now turn to the experimental findings which Bloom (2004, 2005, 2006a,b) considers to be the *prima facie* evidence that we are intuitive Cartesian substance dualists. Jesse Bering and David Bjorklund (2004) present to children (kindergarten through late elementary) and adults (undergraduate students) a series of puppet shows in which a mouse, endowed with various states (biological, psychobiological, perceptual, emotional, desire and epistemic), is suddenly killed and eaten by an alligator. Once the authors were certain that the participants – particularly the children – understood that the mouse was no longer alive, they asked the participants to judge the likelihood that the dead mouse retained the capacity for those certain states. They found that, for all ages, the psychological states (emotions, desires and epistemic) were significantly more likely to generate continuity responses than the other types of states (biological, psychobiological and perceptual states).[17] In a recent review, Bering (2006) claims that these findings reveal a "common-sense dualism". But is this really the case, or is another interpretation of these findings possible?

Why the Dead Matter

In that same review, Bering (2006, p. 2) suggests that "intuitive reasoning about dead agent's minds seems to leave open the possibility for continued social relationships with the dead". Moreover, Pascal Boyer (2001) argues that supernatural agents, such as ancestors, are those that *matter* to the cultural group. Furthermore, he argues:

> Also what is a constant object of intuitions and reasoning are situations of *interaction* with these agents. People do not just stipulate that there is a supernatural being somewhere who creates thunder or that there are souls wandering about in the night. People actually interact with these beings in the very concrete sense of doing things to them, experiencing them doing things, giving and

[16] Both adults and children also claim that one's personality will be significantly altered after a heart transplant (Gottfried and Jow, 2003).

[17] Interestingly for kindergarteners, psychobiological states such as thirst and hunger were also significantly more likely to continue even though most did not think that the mouse would ever need to eat or drink again.

> receiving, paying, threatening, protecting, placating and so on. (Boyer, 2001, p. 138, emphasis original)

Boyer therefore reasons that supernatural agents, such as the ancestral agents, are understood as *interacting in a concrete manner* with the living. They do things; things which require more than a mind. They are not envisaged as *thinking things*, but as *doing things*.

We envisage the dead as carrying out activities that *matter* to us. Those activities which matter to us are those activities which allow for the possibility of a continued social relationship between the living and the deceased. Given this consideration, the Bering and Bjorklund experiment, as well as others like it (Bering, 2002; Bering *et al.*, 2005; Harris and Gimenez, 2005), exemplify a similar and problematic pattern. Biological (will the subject *S* ever need to *drink* again?), psychobiological (is subject *S* still *thirsty*?) and perceptual (can subject *S* *smell* the cigarette smoke?) questions, which participants claimed were significantly more likely not to continue after death, were juxtaposed against emotional (does subject *S* still *love* person *P*?), desire (does subject *S* still *wish* to see person *P*?) and epistemic (is subject *S* still *thinking* about person *P*?) questions, all of which contained social elements. Rather than the respondents claiming that the psychological states continue because they are intuitive Cartesian substance dualists, it may be the case that they are so answering because the latter questions contained social elements which the former lacked. Therefore, a straightforward Cartesian substance dualist interpretation is premature.

Moreover, in casual conversations with those who have lost loved ones, at least, what is usually missing from their descriptions of the deceased are socially irrelevant aspects. The deceased are not described as digesting, defecating or thirsty because these capacities are not, under normal circumstances, socially relevant.[18] They are not thought of as perceiving and knowing things that are socially irrelevant. Although it might be common for a person to think that their deceased loved one is observing them while they are performing some antisocial behavior (Bering *et al.*, 2005), most people do not imagine their deceased loved one watching them while they shower. The realm of the deceased, the afterlife, is a social realm. The deceased remain socially embodied – that is they retain those physical attributes that facilitate their interaction with the living.[19]

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[18] It is interesting to note that according to Bering *et al.* (2005) negative personality traits of a recently deceased persons also fall away from their descriptions.

[19] The thesis of social embodiment, to the best of my knowledge, has not been extended specifically to the folk psychology concerning the afterlife. This is an interesting avenue of further investigation. For an overview of social embodiment, see Barsalou *et al.* (2003, 2005).

Emotional States

Another set of problems with offering a Cartesian substance dualist interpretation to Bering and Bjorklund's (2004) findings follows from our previous problematic of the emotions. First, the Cartesian mind is emotionless; it is a rational, thinking thing. To force a Cartesian interpretation here, one would have to equivocate psychological states which include emotional states with Cartesian mental states that do not.[20] Second, placing the emotions under the heading of psychological states is itself questionable. Inasmuch as the emotions require embodiment – that is, emotions are something that we feel, display *and* think rather than *just* think – it is perhaps more appropriate to place them under psychobiological states. Given this, a straightforward Cartesian substance dualist interpretation of the findings is more difficult to give.

It might be objected here that I am forcing a cognitive psychological distinction onto folk psychology by claiming that emotions more properly belong under the heading of psychobiological. There are two responses to this objection. First, given the previous discussion (pp. 403-404) concerning the folk metaphorical and physical descriptions of emotions, it is not at all clear that emotions belong under the psychological heading as Bering and Bjorklund distinguish it. Second, it is not clear that the folk themselves would categorize the states used in the experiment under the headings which Bering and Bjorklund use. Bering and Bjorklund appear to be forcing their own psychologically informed headings onto folk psychology.

Cartesian Substance Dualism vs. the Intentional Stance: Ontological Gap or Explanatory Strategy?

Bloom (2004, 2005, 2006a,b) argues that the reason we treat humans differently than we do objects is because we view humans as immaterial minds/souls (and that is all they can be under the Cartesian substance dualist interpretation) and physical objects as inanimate things which are subject to the laws of nature or, if we so desire, our own will. Our own bodies are just objects we possess – they are not us. Minds/souls possess goals, beliefs, will, and consciousness; bodies do not. There is an ontological gap between immaterial minds/souls and physical bodies. Clearly there is a difference in the way we treat a thing to which we can attribute mental states and a things to which we

[20] Descartes' (1993/1641, Meditation II) catalogue of mental states only includes the following: doubting, understanding, conceiving, affirming, denying, willing, refusing, imagining, judging and intellectual perceiving. In Meditation VI, Descartes argues that the emotions (passions) are bodily-based perceptions and are the source of much intellectual error as they are often deceptive.

cannot. But does this really mean that we are intuitive Cartesian substance dualists? Is there, and do we think that there is, a substantive ontological gap between those things with minds and those things without?

Cartesian substance dualists claim that the mind is not a physical substance; it is an immaterial substance that is endowed with mental properties which are also immaterial. Those who ascribe this view to the folk claim that the folk intuitively agree to this ontological distinction. Yet, as addressed previously in the discussion concerning the experiment by Richert and Harris (2006), it is not clear that this is the folks intuitive position. Children in the study claimed that the mind performed the same cognitive functions as the physical brain. In addition, in the counterfactual scenario of the brain transplant (Mahalingam and Rodriguez, 2006), folk reasoning was consistent with identifying the mind *as* the brain, rather than identifying the mind as something that the brain has.

Are humans objects?

In contrast to the view that humans are viewed as physical objects, Bloom in collaboration with Valerie Kuhlmeier and Karen Wynn (Kuhlmeier *et al*., 2004a,b) suggests that five-month-old infants do not apply the same constraints to humans as they do to inanimate objects. In their experiments, they tested these infants to see if they applied the principle of continuity – objects moved on connected paths – to both inanimate objects and humans. The first experiment initially showed the infants a video of a box that moved in a straight line across a stage passing behind two separated occlusions until they were habituated to the motion of the box. Once this was accomplished, they were shown a video in which the box passed behind the first occlusion and then, without passing in the open space between that occlusion and the next, reappeared from behind the second occlusion. When this occurred, the experimenters recorded surprise on the part of the infants based on the fact that they looked longer at the video in this condition.

The second experiment was set up just as the former was; save that this time, instead of using the box, a human crossed the stage. Again, the infants were habituated to watching the actress move from one side of the stage to the other behind the two occlusions in a continuous motion. Under the experimental condition, however, the actress was joined by her identical twin that lies in wait behind the second occlusion. When the first twin passes behind the first occlusion, she stops, and the second twin is then seen exiting from behind the second occlusion. To the infants, it looks as though the person has violated the principle of continuous motion in that the person did not pass between the empty space between the first occlusion and the second. Accord-

ing to experimenters, again measuring the looking time, the infants did not express surprise. This, according to Kuhlmeier, Bloom and Wynn (Kuhlmeier *et al.*, 2004a) indicates that infants do not expect humans to be subject to the same physical constraints as material objects.

While the authors in this article are careful not to interpret the findings as evidence of Cartesian substance dualism, they do state, "…infants do not readily view humans as material objects" (Kuhlmeier *et al.*, 2004a, p. 101). In a follow-up article, however, Kuhlmeier, Wynn and Bloom (Kuhlmeier *et al.*, 2004b, p. 111) do suggest that this evidence does give weight to the intuitive Cartesian substance dualist thesis.

There are numerous objections to this study and that can and have been raised (Rakison and Cicchino, 2004; Saxe *et al.*, 2006). But, there is one objection which has not previously been considered. The Cartesian substance dualist position does not claim that living persons do not have bodies; they merely claim that personal identity is not associated with those bodies. Furthermore, a human body in the Cartesian view is a physical thing – not an immaterial thing – and as such is liable to the same physical laws as other physical things. Yet, if the infants are suspending the physical laws for human bodies, the implication is that *the infants are not only viewing the mind as an immaterial substance, but the body as well!* Therefore, this finding is antithetical to the Cartesian substance dualist interpretation, not in support of it.

The Intentional Stance

Kuhlmeier *et al.* (2004a) do offer a further complementary interpretation of their findings. They claim, "…infants interpret humans – but not inanimates – as social, goal-directed entities" (p. 102). But this interpretation may be all that is needed not only to understand their findings, but also the evidence to which Bloom (2004) has appealed in making his case for Cartesian substance dualism. Viewing humans as social, goal-directed entities is the cornerstone of Daniel Dennett's *intentional stance* (Dennett, 1990, 1996, 2006), which offers an alternative interpretation to Cartesian substance dualism.

Dennett has argued that the reason we treat humans (and other intelligent creatures) differently than we do objects is because we take the intentional stance towards things that we find in our environment that exhibit agency – that is, we distinguish between animate movers and inanimate movers. Animate movers are those toward which we adopt the intentional stance – meaning, we treat them as "agents with limited beliefs about the world, specific desires, and enough common sense to do the rational thing given those beliefs and desires" (Dennett, 2006, p.110). It is not that we stop treating those things toward which we take the intentional stance (even as infants) as bodies, but rather we

treat them as bodies which behave according to perceptions, beliefs, goals, desires and (to some extent) rationality (Meltzoff and Moore, 1995; see also Griffin and Baron-Cohen, 2002).

Dennett's theory explains that we take various stances toward objects in our environments depending on their complexity so that we may better predict their behavior. For simple objects, we generally take the *physical stance* – that is, we predict that the object, when acted upon, will operate according to the general laws of physics with which we are acquainted. For more complicated objects, particularly artifacts, we take the *design stance*. This stance allows us to treat such objects as being for a purpose, and we can predict how the object will operate in accordance with that purpose. The last stance, the *intentional stance* with which we are presently concerned, is how we predict the behavior of animate movers. We use the intentional stance to understand and to predict the behavior in accordance with beliefs, desires, goals, etc. that we attribute to the agent. What exists between each of these stances is not an ontological gap – for there is no indication that we are dealing with different substances – but rather different *explanatory strategies*; we are adopting a particular stance to explain the behavior of that with which we are interacting.

Humans do indeed treat intentional agents differently from non-intentional agents. Bloom (2004) and other advocates of Cartesian substance dualism claim that this is because humans intuitively perceive an ontological gap between mind and body. Dennett, on the other hand, claims that humans intuitively choose an appropriate explanatory strategy for the types of actions and behaviors we perceive in our environment by objects and agents. It is not that the agents are immaterial and the objects are physical, but rather that humans employ different explanatory strategies to predict objects and agents. Which of these two possible interpretations is more beneficial in our interactions with both the living and deceased? Would not the intentional stance be a more productive way to interact and to predict those interactions specifically with the deceased than trying to imagine how we are going to interact with them at all since they lack a body? What do we gain by being intuitive Cartesian substance dualists rather than simply being beings which adopt, when appropriate, the intentional stance?

By understanding human behavior in terms of the intentional stance, many of the anomalies concerning the afterlife can be understood. Since humans are attempting to understand the behavior of the deceased, it is natural for them to do so by focusing not on their physical attributes (as in using the physical stance), but rather on their intentional attributes. Thus, it is no surprise that often explicit descriptions of the deceased lack physical information. Dennett's explanation is more parsimonious.

Conclusion

Arguments and evidence have been presented in this article that should give pause in endorsing the assumption that humans are intuitive Cartesian substance dualists and its corollary assumptions (i.e., that humans intuit that the mind and the body are ontologically distinct, that humans intuit that the mind and soul have the identical intension, and that humans intuit that identity is provided by the mind alone). Contrary to received wisdom, the arguments and evidence from both cultural representations and empirical research, specifically with regard to afterlife beliefs, point away from a strong Cartesian substance dualist interpretation. Therefore, research which has endorsed these assumptions and used them as launching pads for further research should be reexamined.

When the claim that humans are *intuitive* Cartesian substance dualists is put under scrutiny, it does not fit the evidence nor answer questions about how humans think as it has been taken to do. In fact, the claim is not a good fit, and it raises *more* questions than it answers. It fails to give a suitable explanation for numerous cultural representations, particularly those related to funerary practices. Further, the claim suffers from severe conceptual and theoretical problems. Moreover, it is likely the case that an intuitive Cartesian substance dualist interpretation of current empirical work is not the better explanation. If the position of intuitive Cartesian dualism is to be supported, there is much work to do. Yet, for reasons considered in this article, it is suspected that attempts to demonstrate that humans actually are intuitive Cartesian substance dualists will fall short.

This is not to say that the work done incorporating intuitive Cartesian substance dualism is without merit. Examining the cognitive components of belief systems has resulted in an explosion of interdisciplinary research into the cognitive science of culture. The intent is not to disregard the work and theories that have been laid down as the foundation for the cognitive science of culture, but to take a closer look at the assumptions being made that currently lack the sufficient evidence to make them substantive.

It may be the case that the folk have conflicting intuitions concerning the issues discussed here. For instance, they might intuit that personal identity is, at least in part, conferred by the body while at the same time witnessing a deceased loved one's body being buried or cremated and hoping – even believing – that the deceased loved one still exists as the same person. They might intuit that large parts of our mental life are immaterial while at the same time using modern medical technology to regulate their mental life in a physical manner. In others words, expecting the folk to have a coherent and consistent set of intuitive beliefs, as the Cartesian paradigm does, may be asking more of the folk than they are capable of providing.

Acknowledgements

I wish to thank Graham McDonald, Jesse Bering, Paulo Sousa, Ryan McKay, Natalie Emmons and Karen Johnson for comments on previous versions of this paper. I would also like to thank Megan Turner for her suggestion concerning the title.

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