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## Conjoined Twins and the Constitution View of Persons

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Psychological approaches to personal identity differ from Biological approaches, or *animalism*, due to the insistence of the former that some sort of mind is necessary for our persistence through time. Such views have been criticized on a number of levels. One of the most powerful criticisms of the psychological approach is that if persons are distinct from, but spatially coincident with organisms, then the organism as well as the person should be able to think by virtue of sharing all of its matter with the person as well as having the same causal ties to the environment. But if this were true, then it would imply that where each of us is now, there are not one, but two thinking beings; a person and a spatially coincident organism.<sup>[1]</sup> Most people find this consequence unacceptable.<sup>[2]</sup> Lynne Ruder Baker has developed a theory of personal identity which purports to solve this problem. According to Baker's constitution view, persons are not distinct from the animals with which they are spatially coincident, but, rather, are *constituted* by human animals. Baker uses the term ? constitute? to describe a certain kind of special relation between two spatially coincident entities, suggesting

that there is more to our understanding of them than the mere fact that they share each other's matter. I will give a thorough description of this view in the subsequent section of the paper. If Baker's theory is coherent, then it would seem to solve the problem of too many thinkers. My aim is to question the coherence of constitution as it applies to persons. I believe Baker's view is unable to make sense of certain anomalous cases of conjoined twins. The inability to accommodate these rare cases, I will argue, undermines the constitution view of persons.

## 2.

There is, of course, already good reason to believe that two entities can be spatially coincident and yet not be identical. This is true, for example, of statues and lumps of bronze. Although a statue and a lump of bronze are made up of the same matter, they have different historical, as well as dispositional and modal properties. And since, according to Leibniz's law, two entities are identical if and only if they share all of each other's properties, we cannot say that lumps of bronze and statues are identical.<sup>[3]</sup> A lump of bronze existed before it ever constituted a statue. The bronze statue can also be destroyed in a way that preserves the lump of bronze, for example if it were re-molded into a different statue. Some readers may want to argue that 'statue' is not a substance concept, but describes a certain phase or stage in the existence of the lump of bronze. But this explanation is also unsatisfying. This is because we can remove the bronze from the inside of the statue, leaving the surface area unaffected. Our intuitions suggest that the statue and the lump would then be physically separate. We would have a hollow statue and a slightly smaller lump of bronze, but neither will have gone out of existence. Since stages are not physically separable from objects, the best explanation is that the statue and the lump are two different kinds of entities.

The same seems to be true of persons and organisms. Organisms exist prior to becoming persons, as mindless fetuses without mental capacities. They can also survive the destruction of the person, and continue to exist in a permanent vegetative state. But it also seems possible for persons to outlive organisms, for example, in metaphysically possible cases of cerebrum transplant or inorganic part replacement. The problem for those who defend a materialist version of the psychological approach is not that we are unable to individuate these spatially coincident entities (the person and the organism) but rather, dealing with the controversial claim that two entities with the same physical makeup and physical properties could differ in their mental capabilities.

According to Lynne Baker's constitution view, two non-identical entities can be spatially coincident without being *distinct* from one another. According to Baker, one kind of entity, an F, constitutes another kind of entity, a G, if and only if, F and G are spatially coincident and the constituting F is in what Baker calls "G favorable conditions", where these conditions include certain *relational* properties.<sup>[4]</sup> For example, a lump of bronze, F, constitutes a statue, G, when the lump of bronze is in conditions which favor the statue. In the case of statues, those conditions are established by a relation to an artworld, that is, a world in which art and artists exist, and in which the statue was intentionally molded by an artist. The same lump of bronze would not be a statue if it came into existence in a world without art. According to Baker, a G can *derive* properties from its constituting F, and *visa versa*. Each entity would have some properties *derivatively* and others *non-derivatively*. For example, since certain aesthetic properties, which could only be appreciated in an artworld, would be had by the statue *even if* it were not constituted by the lump (for example in the case mentioned earlier where the statue is hollowed out), these properties are possessed non-derivatively by the statue and derivatively by the constituting lump. The lump on the other hand, would have certain brute physical properties, such as height and mass non-derivatively since it could have them without constituting a statue, while the statue would have these

properties derivatively. It is important to emphasize the unity of the constitution relation between F?s and G?s as Baker describes it. According to Baker, a certain substance F can, in fact, *be* another substance G without being *identical* to it, as long as it has the necessary relational properties. When we say that a statue is a lump of bronze, the ?is? we are talking about is one of constitution, not identity.

The same relation, Baker claims, can be seen in persons and organisms. Organisms, on Baker?s view, constitute persons by virtue of being spatially coincident with them, and by being in ?person-favorable conditions.? In order for an organism to be in person favorable conditions at *t* it must have certain structural capacities which allow it to support a first-person perspective, which Baker claims is essential to us.<sup>[5]</sup> In addition to this, the organism must have either manifested a first person perspective prior to *t*, or be in conditions which are conducive to the development and maintenance of a first person perspective.<sup>[6]</sup> One of the reasons the constitution view of persons is so appealing is that constitution is a *pervasive* relation. It is seen, not only in persons and organisms, but in statues and lumps, tables and pieces of wood, flags and pieces of cloth, stop signs and octagonal pieces of metal and many more objects. The fact that the constitution relation is easily predicable of many other objects besides persons seems to give it a leg up on other versions of the psychological approach, since, as Baker suggests, her view does not need to engage in any kind of special pleading on behalf of the person. Lastly, according to Baker, the relation between F?s and G?s is one-to-one. That is, no more than one G can be constituted by an F, and no F can constitute more than one G. Baker thinks this would have implausible results, for example if a person were constituted by two bodies and one of them died, the person would then be both alive and dead.<sup>[7]</sup>

However, one problem with Baker?s one-to-one restriction is that there *are* cases where, it appears a

single organism can support two persons, and on the opposite extreme, a single person sustained by two separate organisms. I will discuss each of these cases of conjoined twins in turn, and the problems which they raise for Baker's theory.

### 3.

The first case of conjoined twins where persons and organisms do not match up one-to-one is a case of *dicephalus*. A *dicephalus* appears to be a single body with two heads. A real-life example of this kind of twins is Abigail and Britney Hensel.<sup>[8]</sup> Abby and Britney share a single torso and ribcage, and one set of arms and legs. Duplication of organs includes 2 hearts, 3 lungs, 2 stomachs, 3 kidneys, 2 gallbladders and 2 cerebrums. The twins also have two distinct and separate brainstems. Our commonsense intuitions seem to suggest that Abby and Britney are two separate people supported by a single organism. I do not think that the duplication of certain organs suggests otherwise. Extra organs do not entail extra *organisms*, especially if certain extra organs are not necessary for the sustenance of the entire organism. For example, since the twins share a single circulatory system, presumably, the failure of one of their hearts would not cause their circulatory system to fail, since the other heart would still be able to pump blood. In this sense the extra organs are like kidneys, in that, as long as there is one of each functional organ, the organism can survive the loss of the 'extras.'

Perhaps another reason to suggest that the twins are really two overlapping organisms has to do with the fact that there are two separate brainstems. Defenders of animalism often stress the significance of the brainstem to organisms. This is because the brainstem controls and regulates the life processes which are essential to the organism.<sup>[9]</sup> One might think, then, that two brainstems amount to two organisms. However, I

think there are good reasons to deny this. One is that organisms can exist *without* brainstems i.e. as mindless fetuses. Another is that extra brainstems do not really seem to make any significant contributions to already functioning organisms. An extra brainstem seems to merely *overdetermine* the life processes of an organism. [10] In this way, having an extra brainstem seems analogous to being hooked up to a life support machine in perfect health. If the machine stops functioning, then the organism would not die, since the brainstem is still fully functional. But if the brainstem ceased to function, the organism would be kept alive by life support. Continuity of certain life processes are what is essential to an organism, not whether those processes are controlled and regulated by one as opposed to two sources, or an internal source as opposed to an external one.

Another alternative explanation is that, contrary to appearances, the dicephalus is really one individual with a *divided* psychology. On this view, the person is essentially an organism that is 'cut-off' from half of her thoughts. But this explanation is unsatisfying. It asks us to redefine our concept of 'person.' We normally think of persons as beings who can form intentions, think self-conscious thoughts, and be held accountable for their actions, and there are clearly two of those in a case of dicephalus. My hunch is that, the fact that there are two *completely separate* minds, each with its own separate set of memories, beliefs and desires, will make it very difficult for readers to view the dicephalus as a single person.

The best explanation then, is that the dicephalus really is a case of two persons and one organism. What problems does this pose for Baker's view? Well, for one, it would seem to suggest that there is a substantial dissimilarity between constitution as it applies to persons and as it applies to other objects of which the relation is predicated. We do not see cases where a single lump of bronze constitutes two statues, or one piece of wood constituting two tables. Perhaps the only example of one F constituting two different G's can be seen in a case

in which two roads overlap for a short distance, and then an earthquake, or some other natural disaster destroys all but the overlapping sections.<sup>[11]</sup> If this were to happen, then it seems we would be left with a single strip of asphalt constituting two roads. Can this example be used as a coherent analogy to cases of dicephali? I have my doubts. This would imply that each person in a case of dicephalus was also spatially coincident with each other, as well as with the organism constituting them. Aside from being highly counterintuitive, this solution would have the same theoretical problems as the spatially coincident, but distinct person and organism mentioned earlier in the paper. This is because in the case of dicephalus neither person would, presumably, be able to think the other's thoughts. This seems to be false, at least, of Abby and Britney who have completely separate and distinguishable minds, as well as the ability to form intentions of which the other is completely unaware. But how could two spatially coincident persons have two distinguishable sets of thoughts, memories, beliefs and desires, or one person have thoughts which are inaccessible to the other? This position runs amok of the same problems which the constitution view is supposed to solve. A defender of this view might call attention to the fact that you yourself have parts that play no role in your thought processes (arms, legs etc.) and then use the same rationale to explain why one twin, despite having the other's brain as a part, cannot use this part to think.<sup>[12]</sup> This defense misses the mark. While it is conceptually possible for a person to have a part that plays no role in the physical processes that underlie *her* psychology, but does play a role in those processes for someone else,<sup>[13]</sup> it seems quite impossible for two spatially coincident persons to have different physical or mental capabilities unless whatever accounts for this difference is something non-physical. But the twins in a case of dicephalus *do* have different physical capabilities. One can think with a certain part of her brain, the other cannot (and vice versa).

Another problem with positing Abby and Britney as spatially coincident entities is that we seem to be

able to individuate them regardless of whether or not they *actually are* spatially coincident with each other. Most of us think we can clearly identify Abby ?on the right? and Britney ?on the left.? But if the twins are spatially coincident then we are mistaken in our judgments. This is unlike the example of overlapping roads in which we are clearly unable to distinguish one from the other. Another point, along these lines has to do with how spatially coincident entities can be separated. Since, in the example involving roads, there is nothing that physically distinguishes them, it seems we are unable to physically separate one road from the other. But this is, at least theoretically possible in the case of dicephalus. We could, for example, transplant the cerebrum of each twin into two different cerebrumless bodies.

Perhaps there are other examples of spatially coincident entities of the same kind which *are* physically separable. But, if there are, how would we ever be able to distinguish them? Consider for example, two pools of mercury which merge together, and then separate? Assume, for the sake of argument, that the two pools of mercury became spatially coincident with each other upon merging. Would the pool which was on the left before the two pools merged, still be on the left when the two spatially coincident pools divided? It seems there is no way of telling. It is our inability to individuate spatially coincident entities in such cases which causes most of us to say that the mercury example is really a case of two pools fusing into *one single* larger pool, which then goes out of existence when it divides, giving rise to two smaller pools which are qualitatively similar, but are not identical to the two original pools which merged to create the larger one. In the case of dicephalus, if we were to transplant the cerebrums of the two twins, Abby and Britney into the empty skulls of two other bodies, we would still have some way of knowing which one was which. Not only could we trace the path of each cerebrum, which we *already identify* as belonging to a definite twin, to each separate body, but the personalities and dispositions of each twin after the transplant would reinforce our original assumptions of who

would be who. But if the twins are indeed spatially coincident, we would never know which one of the (now) physically distinguishable persons in this thought experiment is Abby and which one is Britney. The claim that the twins are spatially coincident then, not only poses theoretical problems for the constitution view, but strongly opposes our commonsense ontology.

The second example of conjoined twins which, I believe, threatens the integrity of Baker's theory, is seen in a case of *craniothoracopagus twins*. These twins appear to be two human organisms sharing a single head. Although there is also partial union of the chest, below the head, the twins are for the most part distinct. There are two separate body trunks, each with its own organs and its own arms and legs. The hearts and gastrointestinal systems are partially fused, but there is still *two* of each.<sup>[14]</sup> If this is not a convincing case of two distinct organisms sharing a single cerebrum, then we can imagine a case where they are more clearly distinct, and where there are two brainstems protruding from the single cerebrum, controlling and regulating the biological functions of the two human animals. Such a case would, I think, be both metaphysically and technically possible. Craniothoracopagus twins seem to be another example where persons and organisms do not match up one-to-one. If we treat the craniothoracopagus twins as an example of a single person constituted by two bodies, then, unlike the case of dicephalus, it seems that no analogous situation will be seen in other objects. It does not seem possible to me that two lumps of bronze could constitute a single statue, or two pieces of wood, a single table. If Baker does not distinguish the organism from the body, she will have to treat the twins as a case of two-to-one constitution, and admit the dissimilarity between constitution as it applies to persons, and as it applies to every other object. Baker can sidestep this problem by making a distinction between organisms and *bodies* and then claiming that the conjoined organisms are really a *single* body. The twins would then be one person constituted by a body made up of two organisms. Baker's worry, mentioned

earlier, of the person being both dead and alive could then be solved by denying the existence of dead organisms. Since life is essential to an organism, it simply goes out of existence when its life processes cease. It does not 'become' dead. Although Baker accepts the existence of dead organisms, there are good reasons for denying that they exist. Organisms and bodies seem to have different persistence conditions. Many of us believe that organisms can survive gradual part replacement as long as the replacement is slow enough so that the new parts are assimilated into the life processes of the organism. There are also ontological problems which arise when trying to determine when bodies come into existence, whereas the origins of the organism are simply defined as whatever point its life processes begin. Because organisms and bodies have different persistence conditions, it would be a mistake to treat 'being alive' as a mere stage of the organism.<sup>[15]</sup> The problem is put into perspective by Eric Olson, who states that 'a thing cannot exchange its criterion of identity part way through its career for a new and incomplete criterion.'<sup>[16]</sup> Whatever persistence conditions a thing has at some time  $t$ , should be the same at any point in its existence. If Baker accepts this and denies the existence of dead organisms, she could claim that, when one of the organisms constituting the person dies, the person comes to be constituted by the other organism.

However, one problem with insisting that the twins are really one person constituted by a single body is that this may force unlikely conclusions on us, which are strongly opposed by our commonsense intuitions. We will be forced to accept that conjoined twins, who share nothing but a single organ, are really constituted by one body instead of two. Perhaps this is not difficult to accept in cases of twins who share a single cerebrum, but twins who share, say, a liver would also have to be treated as one-bodied entities. This solution would also render useless, the possibility of solving the problems posed by the dicephalus by an appealing to the notion of two overlapping organisms. This is because twins sharing just one organ would have to be treated as a case of

extreme dicephalus in which the twins are simply less closely conjoined. Since we would have to treat two organisms sharing only a single organ as one body constituting two persons, we would have to treat the original dicephalus as one body constituting two persons, regardless of whether or not that case involves one organism or two overlapping ones.

Another solution to this problem may involve trying to argue that the craniothoracopagus twins are, despite appearances, one organism, the life of which is overdetermined by two different brainstems. But I seriously doubt that anything like this is going to work. It seems clear that there are, at least in the imaginary case I proposed, two separate sets of life processes, such that if one of the brainstems ceased to function, *one whole set* of life processes would cease altogether. This is different from an overdetermined life, in which the failure of one brainstem does not cause the cessation of any life processes, such as circulation, respiration, metabolism, etc. In the case of twins conjoined at the head, the only overdetermined organ would be the cerebrum, while the *two sets* of various organismic functions just mentioned would be regulated separately.

#### 4.

This concludes the analysis of conjoined twins and the puzzles that these twins pose for the constitution approach to identity. My conclusion is that no satisfactory solution to these puzzles can be given which preserves the similarity between the constitution view as it applies to persons and the constitution view as it applies to other objects. Where does this leave Baker's theory? If the arguments that Baker has to give in order to make sense of cases of dicephalus and craniothoracopagus twins cannot be applied to other objects, then I think we should either conclude that constitution as a universal relation is incoherent, or that the constitution view of *persons* is incoherent (or both).

My suggestion is that we need not abandon the idea of constitution entirely since it seems, on the whole, a coherent and persuasive view. My aim in this paper has been to question whether the relation of constitution indeed describes the relationship between a person and her body. I have concluded that it does not. It seems one can accept constitution as a pervasive relation, while denying that persons satisfy this relation.

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[1] See Olson's criticisms of the psychological approach in his book *The Human Animal: Personal Identity without Psychology* (New York: Oxford University Press, 1997) and in his 'What Does Functionalism Tell Us about Personal Identity?' *Nous* 36:4, 682-697. Olson refers to this as 'the problem of the thinking animal.'

[2] Indeed, much of the current literature on personal identity is devoted to solving the problem of the thinking animal. Solutions to this problem have been proposed by Baker (2000), McMahan (2002), Persson (1999) and Shoemaker (1999), (2003). All of these philosophers defend a different version of the psychological approach

[3] However, it is possible to take an eliminativist stance regarding artifacts. The eliminativist claims that what we call 'statues' (or any other artifact for that matter) are mere aggregates of atoms arranged in a certain way. This is opposed to a substantial view of artifacts by which aggregates of atoms compose an artifact with which they are not identical. Some

notable proponents of the former position are van Inwagen (1990) and Olson (1995).

[4] See Baker's *Persons and Bodies*. (New York: Cambridge University Press, 2000)

[5] The importance of the first person perspective is outlined in chapters 3 and 6 of *Persons and Bodies*: pp. 59-88 and 147-164.

[6] Baker (2000) pp. 92.

[7] I believe this can be avoided if it is admitted that organisms cease to exist when they die, rather than become dead. Baker (2000, pp. 110-117) does not distinguish organisms from bodies. But, as I will argue in section 3, this may be the only way to make sense of conjoined twins that share a single cerebrum. I follow Olson and van Inwagen (1990) in their claims that the ontological status of an organism depends on the continuity of its life processes.

[8] Readers who are interested can find the twins' fan page at: <http://www.geocities.com/heldenkline/Hensel.html>. Other discussions of the dicephalus can be found in Jeff McMahan's *The Ethics of Killing* (New York: Oxford University Press, 2002), David Hershenov's "Countering the Appeal of the Psychological Approach to Personal Identity" *Philosophy* (2004) Summer 79: pp. 445-472, and Van Inwagen's *Material Beings* (Ithaca: Cornell University Press) pp. 195-200. Van Inwagen does not refer specifically to the dicephalus, but to an organism he calls Cerebrus, which is a single organism with two brains.

[9] See Olson (1997) pp. 140-142 for an account of the importance of the brainstem to organisms.

[10] Van Inwagen supports this view. See his *Material Beings* pp. 203 where he discusses a metaphysically possible case

of an organism with two brains and two brainstems

[11] I owe this example to David Hershenov. See his paper "Can There be Spatially Coincident Entities of the Same Kind?" Canadian Journal of Philosophy 33:1 (2003) pp. 1-22. Hershenov challenges the traditional view, going back to Locke, that objects of the same kind can't share the same matter.

[12] Hershenov suggested this in conversation

[13] Hershenov's example is an alien cell which has thoughts of its own and which is a part of the reader in virtue of its role in the reader's life processes; presumably the same role as a normal cell. Intuitively the reader would not be able to think the thoughts of the cell and vice versa.

[14] The twins are discussed in an unpublished manuscript by David Hershenov: "Does the Animalist have a Too Many Thinkers Problem?" Also, pictures of the craniothoracopagus twins can be viewed at the following website: [www.conjoined-twins.i-p.com/](http://www.conjoined-twins.i-p.com/). It is worth mentioning that the cases of conjoined twins presented in this paper pose serious problems for animalism as well. Specifically the craniothoracopagus conjoined twins, since they seem to pose the same problem of an "extra" set of thoughts which plagues some versions of the psychological approach. Some might claim that the psychological approach would have to treat these twins as three thinkers, but there are versions of the PAPI which can avoid this problem. One example of this is Jeff McMahan's Embodied Mind Account of identity which he develops in his book: *The Ethics of Killing*, (New York: Oxford University Press, 2002). I believe the embodied mind account can avoid the problems of conjoined twins presented in this paper. Reader's who are interested can peruse the first chapter of *The Ethics of Killing*, which focuses mainly on identity.

[15] For a more thorough account of the symmetry problem between bodies and organisms, see Hershenov's "Do Dead Bodies Pose a Problem for Biological Approaches to Personal Identity?" *Mind* (2005) 114(453): 31-59.

[16] Olson (1997) pp. 83

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