



Shared consciousness and asymmetry

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Abstract

It is widely held that there is an asymmetry between our access to our minds and our access to others' minds. Philosophers in the literature tend to focus on the asymmetry between our access to our mental states and our access to those mental states of others that are not shared by us. What if a mental state can have multiple subjects? Is there still an asymmetry between our access to our mental states and our access to those mental states of others that are also ours? In this paper, I discuss the implications of a case of shared consciousness—the case of the Hogan twins—for asymmetry. I start by clarifying the notion of asymmetry. Here I develop a characterization of asymmetry and argue that it is preferable to the standard approaches in the literature. I then present the twins' case and argue that it does not threaten asymmetry. I close by drawing some lessons.

1 Introduction

It is widely held that there is an asymmetry between our access to our minds and our access to others' minds. On a standard view—accepted by philosophers such as Davidson (1987), Boghossian (1989), and Moran (2001)—while our access to our minds can be immediate, our access to others' minds can only be inferential. As Boghossian puts it:

In the case of others, I have no choice but to *infer* what they think from observations about what they do or say. In my own case, by contrast, inference is neither required nor relevant. Normally, I know what I think—what I believe, desire, hope or expect—without appeal to supplementary evidence. Even where

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such evidence is available, I do not consult it. I know what I think directly (1989, p. 7, emphasis original).

Here Boghossian focuses on thoughts, but the point applies to other mental states as well. For example, to know what you see, it seems that I need to observe what you are looking at, pointing at, or talking about, and make an inference on the basis of my observation. By contrast, to know what I see, it seems that I need not do any of these things (whatever else I need to do).

Philosophers in the literature tend to focus on the asymmetry between our access to our mental states and our access to those mental states of others that are not shared by us. Suppose I am in one mental state M1 and you are in another mental state M2. It is standard to ask whether I can have justification to believe that I am in M1 in a way such that I cannot have justification to believe that you are in M2 in that way. This question focuses on cases where a mental state has only one subject. But what if a mental state can have multiple subjects? Is there still an asymmetry between our access to our mental states and our access to those mental states of others that are also ours? Suppose you and I share a mental state M—that is, both you and I are simultaneously in M while being distinct subjects. Is it still the case that I can have justification to believe that I am in M in a way such that I cannot have justification to believe that you are in M in that way?

The possibility of shared mental states is not just science fiction. As it happens, there may be an actual case. Krista and Tatiana Hogan are craniopagus conjoined twins—that is, they are joined at the head. They are unique because they are also joined at the brain. There is a piece of neural tissue that connects to each's thalamus, which has been called a "thalamic bridge" (Dominus, 2011). Information in each's brain can cross this bridge to the other's brain. Due to their neural connection, it seems that stimulation of each's body can cause the other to have experiences. For example, both can correctly report where the other's body is being touched with their eyes covered (Pyke, 2017, 05.30–06.10). On one interpretation (Cochrane, 2021), such cases are ones of shared consciousness¹—that is, there are some experiences that both simultaneously have while being distinct subjects. If that is right, then the twins' case seems to threaten asymmetry, at least as understood by Davidson, Boghossian, and Moran. Note that each twin can stand in an unusually close relation to the other's experiences. When they share an experience, there is no "barrier" between each and the other's experience, as it were—each just undergoes the other's experience. It does not seem that Tatiana has no choice but to infer what Krista experiences from observations about what Krista does or says. Rather, it seems that Tatiana's belief that Krista has the experience can be justified in the same distinctively first-personal way as Tatiana's belief that she herself has the experience. The same holds, *mutatis mutandis*, for Krista (cf. Roelofs, 2019, pp. 63–64).

The twins' case has received much attention. In addition to shared consciousness (Roelofs, 2019, p. 112, fn. 21; Cochrane 2021; Javier-Castellanos, 2021), philosophers and scientists have discussed its implications for personal identity (Hershenov,

¹ Since there are no reports of shared unconscious mental states, in what follows I will mainly focus on shared consciousness.

2013, pp. 204–206; Schechter 2018, pp. 119–120; Hedden 2019; Campbell, 2021), human enhancement (Douglas, 2013, p. 482, fn. 12; Agar, 2013, pp. 172–173), immunity to error through misidentification (Langland-Hassan, 2015), ownership of mental state (Klein, 2015, p. 367), and panpsychism (Montero, 2017, pp. 220–221). There is, however, little discussion of its implications for asymmetry.²

It is important to consider whether asymmetry holds in cases like the twins' case. The extraordinary can sometimes illuminate the ordinary. In the conclusion, I will briefly discuss what we can learn from the twins' case.

Here is the plan for the paper. I will start by clarifying the notion of asymmetry. Here I will develop a characterization of asymmetry and argue that it is preferable to the standard approaches in the literature. I will then present the twins' case and argue that it does not threaten asymmetry. I will close by drawing some lessons.

Before proceeding any further, let me introduce and clarify some key terms. Following Pryor (2014), I will say that you have *immediate justification* to believe that p just in case (1) you have justification to believe that p ; and (2) your justification to believe that p does not come from your justification to believe any other proposition. I will say that you have *inferential justification* to believe that p just in case (1) you have justification to believe that p ; and (2) your justification to believe that p comes in part from your justification to believe some other proposition. As Pryor emphasizes, the difference between immediate justification and inferential justification is a difference in what kind of support one has. It is not a difference in how much support one has: immediate justification need not be infallible and indefeasible, and need not be stronger than inferential justification. Nor is it a difference in how one forms beliefs. Suppose your justification to believe that p comes in part from your justification to believe that q . Your justification to believe that p is inferential, whether or not you infer p from q , and whether or not you infer p at all.

2 Characterizing asymmetry

2.1 ASYMMETRY_e

Before examining whether the twins' case threatens asymmetry, we need to get a grip on the notion of asymmetry. Here is a first pass at characterizing asymmetry:

ASYMMETRY_e: You can have justification to believe that you are in a mental state M in a way such that others cannot have justification to believe that you are in M in that way.

² An exception is Kriegel (2017). Kriegel is primarily concerned with the link between consciousness and dignity. Central to Kriegel's account is the notion of "phenomenal inviolability," according to which "every experience can be experienced by only one person" (p. 131). Although Kriegel mentions that the twins' case is the only known exception to "phenomenal inviolability," where each can access the other's experiences in the same way that the other can, he says little to defend his view on the twins' case. As I will argue, even if the twins' case is an exception to "phenomenal inviolability," there is still an asymmetry between each's access to her experiences and her access to the other's experiences.

Some clarifications are in order.

First, the type of asymmetry at issue in $ASYMMETRY_e$ is epistemic, hence the “e.” $ASYMMETRY_e$ should be distinguished from a psychological version of asymmetry:

$ASYMMETRY_p$: You can form a belief that you are in a mental state M in a way such that others cannot form a belief that you are in M in that way.

Note that when $ASYMMETRY_e$ applies to a mental state, it does not follow that $ASYMMETRY_p$ does as well. For example, on Byrne’s (2005) view, you can know and so justifiedly believe that you believe that p by inferring from the premise that p to the conclusion that you believe that p . Even if others cannot form a *justified* belief that you believe that p in this way, they can nevertheless form a belief that you believe that p in this way (if they wish to do so for some reason).

Second, regarding the sense of “can,” I am concerned with whether you access your mental states in a way such that no one else actually has the ability to access your mental states in that way. I leave open whether it is logically or metaphysically impossible for others to access your mental states in that way.

Third, $ASYMMETRY_e$ is a characterization of asymmetry; it leaves open which mental states, if any, it applies to. Just as one can accept a certain characterization of free will while denying that we have free will in that sense, one can accept $ASYMMETRY_e$ while denying that it applies to a certain mental state.

Fourth, $ASYMMETRY_e$ characterizes asymmetry in terms of a difference in how one gains justification, not in terms of a difference in how much justification one has. In Byrne’s (2005) terminology, $ASYMMETRY_e$ characterizes asymmetry in terms of “peculiarity,” not in terms of “privilege.”

Finally, $ASYMMETRY_e$ leaves open how our access to our minds is different from our access to others’ minds. This neutrality allows us to accommodate as many approaches to asymmetry as possible.³

2.2 JUSTIFICATION-SOURCE

$ASYMMETRY_e$ is a good starting point, but we need much more detail. I will first present the version of $ASYMMETRY_e$ I will work with. I will then explain why it is preferable to the standard versions in the literature.

The version I have in mind stems from the idea that you can have various kinds of justification for beliefs from various kinds of sources:

JUSTIFICATION-SOURCE (JS): You can have justification of kind J from sources of kind S to believe that you are in a mental state M such that others cannot have justification of kind J from sources of kind S to believe that you are in M .

³ In fact, even Ryle (2009) can accept $ASYMMETRY_e$. On Ryle’s view, the difference between our access to our minds and our access to others’ minds is a difference in “the supplies of the requisite data” (p. 138). It is not just that we have more evidence about ourselves. We have certain sorts of evidence—such as memory and inner speech—that are unavailable to others. In the terminology to be introduced below, Ryle can be seen as an early proponent of the INTERNAL PROMPTING version of $ASYMMETRY_e$.

When I speak of “kinds of justification,” I will focus on those standard kinds of justification philosophers talk about. In addition to immediate justification and inferential justification, philosophers standardly talk about propositional justification (which concerns whether you have justification to hold a belief), doxastic justification (which concerns whether you form and maintain a belief epistemically well), prima facie justification (justification that can be defeated by further evidence), fallible justification (justification you can have for a belief while it is false), and a priori justification (justification that is independent of experience), to name but a few. I will not focus on those kinds of justification that are relativized to subjects (e.g. justification acquired by Kim), times (e.g. justification acquired on Christmas Eve), spaces (e.g. justification acquired in Paris), or something else.

When I speak of “kinds of sources,” I will focus on those standard kinds of sources philosophers talk about, such as belief, memory, perceptual experience, bodily sensation, reason, and testimony, to name but a few. Again, I will not focus on those kinds of sources that are relativized to subjects (e.g. Jim’s experience), times (e.g. experience one has on New Year’s Eve), spaces (e.g. experience one has in London), or something else.

It is important that we do not focus on those kinds of justification or kinds of sources that are relativized in some way. Doing so risks trivializing asymmetry. Consider Jim’s experience. Assuming that Jim never shares experiences with others, Jim’s experience is a kind of source that only Jim can get justification from. But nothing epistemologically significant seems to follow from this.

Note that JS does not characterize asymmetry in terms of specific kinds of justification or specific kinds of sources. For all JS says, asymmetry need not consist in a difference between immediate access and inferential access; the difference between our access to our minds and our access to others’ minds might well be a difference in how we acquire inferential justification in the two cases. The central point here is negative: you can have justification of a certain kind (whatever that is) from sources of a certain kind (whatever that is) for beliefs about your mind in a way that is unavailable to others.⁴

2.3 The standard versions of ASYMMETRY_e

Before explaining why JS is preferable to the standard versions of ASYMMETRY_e in the literature, a brief look at them is in order.

According to a first version, mentioned in the introduction, the difference between our access to our minds and our access to others’ minds is a difference in the kinds of justification that are available in the two cases:

IMMEDIACY: You can have immediate justification to believe that you are in a mental state *M*, while others can only have inferential justification to believe that you are in *M*.

⁴ I should say that although philosophers in the literature tend to focus on immediate justification and inferential justification, JS allows that asymmetry consists in a difference in other kinds of justification.

My characterization of IMMEDIACY leaves open where others get inferential justification from to believe that you are in M. But note that most if not all proponents of IMMEDIACY hold that observation of behavior (broadly construed to include linguistic behavior) is the only source. Boghossian, for example, maintains that “[i]n the case of others, I *have no choice* but to infer what they think from observations about what they do or say” (1989, p. 7, emphasis mine).

IMMEDIACY is widely accepted by philosophers.⁵ As Cassam (2014; 2017) observes, philosophers usually take IMMEDIACY to be a datum rather than a claim that needs to be argued for. On this view, IMMEDIACY is a starting point for theorizing about introspection—it is a constraint on theories of introspection that they should explain (or explain away) IMMEDIACY.

An important question concerns the scope of IMMEDIACY. Davidson, Boghossian, and Moran all distinguish two broad categories of mental states—thoughts and feelings—and focus on thoughts, in particular on beliefs. Nevertheless, they seem to think that IMMEDIACY applies across the board to both thoughts and feelings (see e.g. Moran 2001, p. 10).

Although IMMEDIACY is popular, it is not the only version of ASYMMETRY_c in the literature. According to a second version, our access to our minds and our access to others’ minds are both inferential. On this view, the difference between our access to our minds and our access to others’ minds is a difference in the kinds of evidence that are available in the two cases:

INTERNAL PROMPTING: You can have inferential justification to believe that you are in a mental state M from your internal promptings, while others can only have inferential justification to believe that you are in M from their observation of your behavior.

“Internal prompting,” a term coined by Lawlor (2009), denotes mental states that can serve as evidence from which you infer some other mental states. To better understand this version of ASYMMETRY_c, it might help to consider Lawlor’s example of Katherine, who wants to know whether she wants another child. Trying to find out what she wants,

Katherine starts noticing her experiences and thoughts. She catches herself imagining, remembering, and feeling a range of things. Putting away her son’s now-too-small clothes, she finds herself lingering over the memory of how a newborn feels in one’s arms. She notes an emotion that could be envy when an acquaintance reveals her pregnancy. Such experiences may be enough to prompt Katherine to make a self-attribution that sticks. Saying “I want another child”, she may feel a sense of ease or settledness (p. 57).

Katherine’s experiences, thoughts, imaginings, memories, feelings, emotions, and so on are her internal promptings, and she is justified in believing that she wants

⁵ For a survey of how widespread IMMEDIACY is among philosophers, see Carruthers (2011, pp. 17–19).

another child (C) by making an inference from her internal promptings.⁶ Lawlor does not address the issue of asymmetry directly, but she arguably endorses INTERNAL PROMPTING, at least as far as desires are concerned. The idea is that Katherine can have inferential justification to believe C from her internal promptings, but others can only have inferential justification to believe C from their observation of her behavior. Behavioral evidence, Lawlor says, is the kind of evidence “we *must* use in attributing desires to others” (p. 67, emphasis mine). On Lawlor’s view, the difference between our access to our minds and our access to others’ minds is a difference in the kinds of evidence that are available in the two cases: “[A]lthough we use *different data*, in third-person and first-person ascription of attitudes, we might use the *same means*, namely inference” (ibid., emphasis original).

In addition to Lawlor, Cassam (2014; 2017) and Wikforss (2019) also endorse INTERNAL PROMPTING, although they differ on what counts as internal promptings.⁷ Proponents of INTERNAL PROMPTING also differ on its scope. Lawlor and Wikforss are modest, holding that it applies to desires and beliefs, respectively. By contrast, Cassam is ambitious, holding that it applies across the board to standing attitudes in general and to some internal promptings.⁸ As far as I know, no proponents of INTERNAL PROMPTING hold that it applies to all mental states.⁹

2.4 Defending JUSTIFICATION-SOURCE

Having reviewed the standard versions of ASYMMETRY_e, I will now argue that JS is preferable to them. The main reason to prefer JS is that it provides a broader understanding of asymmetry—it can cover a wider range of cases than those handled by the standard versions.

JS can cover those cases the standard versions can handle. Whenever IMMEDIACY applies to a mental state, so does JS. Suppose (to borrow Boghossian’s example) you can have immediate justification to believe that you think that even lousy composers sometimes write great arias (A), but others can only have inferential justification to believe A. It follows that you can have justification of a certain kind (i.e. immediate justification) to believe A such that others cannot have justification of that kind to believe A. A fortiori, you can have justification of a certain kind from sources of a certain kind to believe A such that others cannot have justification of that kind from sources of that kind to believe A.

Similarly, whenever INTERNAL PROMPTING applies to a mental state, so does JS. Suppose (to borrow Lawlor’s example) Katherine can have inferential justifica-

⁶ On Lawlor’s view, Katherine’s self-ascription is the product of an inference about the cause of her internal promptings—Lawlor calls this route to self-knowledge “causal self-interpretation” (p. 49)—and it is justified in so far as it is the best explanation of her internal promptings.

⁷ Carruthers (2011) arguably endorses INTERNAL PROMPTING as far as attitudes are concerned, even though he does not use the term “internal prompting.”

⁸ Unlike Lawlor and Wikforss, Cassam has much to say about our access to our internal promptings. For discussion, see Cassam (2014, pp. 163–166).

⁹ Even Cassam, who is arguably the staunchest defender of INTERNAL PROMPTING, agrees that IMMEDIACY may be plausible when it comes to “simple feelings or sensations like nausea and pain” (2014, p. 164) and occurrent thoughts (2017).

tion to believe that she wants another child (C) from her internal promptings, but others can only have inferential justification to believe C from their observation of her behavior. It does *not* follow that Katherine can have justification of a certain kind to believe C such that others cannot have justification of that kind to believe C—both Katherine and others can have inferential justification to believe C. Nevertheless, Katherine can still have inferential justification from sources of a certain kind to believe C such that others cannot have inferential justification from sources of that kind to believe C—others can have inferential justification to believe C, but they cannot do so *from their internal promptings*.

Moreover, and more importantly, JS can cover those cases the standard versions cannot handle. Specifically, JS can, but the standard versions cannot, allow that asymmetry holds even when we have immediate access to others' minds.

A growing number of philosophers have argued that our perceptual experiences can give us immediate access to others' minds.¹⁰ These philosophers usually focus on emotions such as anger, joy, and sadness. Suppose you quarrel with your mom. You see her red cheeks, clenched fists, and stamping feet. You can tell by looking that she is angry. Call this the "anger case." According to these philosophers, in the anger case your perceptual experience can give you immediate justification to believe that your mom is angry. These philosophers differ on what gives you justification. What gives you justification might be your seeing that your mom is angry (Dretske, 1969; McDowell, 1982; Cassam, 2007),¹¹ seeing her anger (McNeill, 2012), or seeing her as angry (Smith, 2010).¹² Alternatively, your perceptual experience might give you immediate justification to believe that your mom is angry even if you do not see that she is angry, see her anger, or see her as angry (Spaulding, 2015; Westfall, 2021). We need not decide which of these accounts, if any, is correct. What matters here is that proponents of JS need not deny that asymmetry holds in the anger case. Suppose your mom has immediate justification to believe that she is angry (A) from her anger. It is open to proponents of JS to say that even if you have immediate justification to believe A from your perceptual experience, she has immediate justification to believe A from a source of a certain kind (i.e. anger) such that others cannot have immediate justification to believe A from a source of that kind.

One might object to my treatment of the anger case in different ways.

First, one might protest that just as your mom can have immediate justification from her anger to believe that there is anger, you can have the same kind of justification (i.e. immediate justification) from the same kind of source (i.e. anger) to believe that there is anger. In response, this objection does not say or clearly imply anything about asymmetry, since the judgment that there is anger does not ascribe a mental state to any subject.

¹⁰ Some (Dretske, 1973; Green, 2010; Cassam, 2017) argue that although we can have perceptual access to others' minds, such access is nevertheless inferential.

¹¹ Dretske and Cassam later revised their views in Dretske (1973) and Cassam (2017).

¹² These are different options. You can see that your mom is angry, or see her anger, only if she is angry, but you can see her as angry even if she is not angry. Assuming that seeing that *p* entails believing that *p*, you can see that your mom is angry only if you believe that she is angry, but you can see her anger without believing that she is angry.

Second, those who think that we have perceptual access to both others' and our mental states might say something like the following. Suppose both you and your mom perceive her anger. Just as your mom can have immediate justification from her perceptual experience of her anger to believe that she is angry (A), you can have the same kind of justification (i.e. immediate justification) from the same kind of source (i.e. perceptual experience of anger) to believe A. In response, setting aside the worry that we have nothing like perceptual access to our mental states, what the objector says is actually compatible with my view. In maintaining that your mom can have immediate justification to believe A from sources of a certain kind (i.e. anger) such that others cannot have immediate justification to believe A from sources of that kind, one can allow that both your mom and others can have immediate justification to believe A from sources of another kind (e.g. perceptual experience of anger). Compare: in maintaining that Katherine can have inferential justification to believe that she wants another child (C) from sources of a certain kind (i.e. internal prompting) such that others cannot have inferential justification to believe C from sources of that kind, one can allow that both Katherine and others can have inferential justification to believe C from sources of another kind (e.g. observation of behavior).

Now, unlike proponents of JS, proponents of the standard versions must deny that asymmetry holds in the anger case. For proponents of IMMEDIACY, asymmetry holds in the anger case just in case your mom has immediate justification to believe that she is angry (A), but you only have inferential justification to believe A. For proponents of INTERNAL PROMPTING, asymmetry holds in the anger case just in case your mom has inferential justification to believe A from her internal promptings, but you only have inferential justification to believe A from your observation of her behavior. Proponents of the standard versions must deny that asymmetry holds in the anger case if you have immediate justification to believe A.¹³

In sum, JS can cover a wider range of cases than those handled by the standard versions. JS can not only cover those cases the standard versions can handle; it can also allow that asymmetry holds even when we have immediate access to others' minds. We thus have good reason to prefer JS to the standard versions.¹⁴

¹³ To avoid this problem, proponents of INTERNAL PROMPTING might retreat to the following position: INTERNAL PROMPTING*: You can have inferential justification to believe that you are in a mental state M from your internal promptings, but others cannot have inferential justification to believe that you are in M from their internal promptings. Unlike INTERNAL PROMPTING, INTERNAL PROMPTING* characterizes asymmetry negatively, leaving open how others have justification to believe that you are in M. Proponents of INTERNAL PROMPTING* need not deny that asymmetry holds in the anger case if you have immediate access to your mom's anger. This is so because they are not committed to the view that you can only have inferential justification to believe that your mom is angry from your observation of her behavior. However, they will leave the asymmetry in the anger case unexplained. This is so because INTERNAL PROMPTING* foregrounds cases involving inferential justification and so cannot deal with cases involving immediate justification, including the anger case. Retreating to INTERNAL PROMPTING* is therefore not a promising move.

¹⁴ I should say that the failure of the standard versions to accommodate cases where we have immediate access to others' minds is not their only problem. Proponents of the standard versions usually hold that we only have behavioral evidence about others' minds. However, while behavioral evidence is important, we should not overestimate its importance. We arguably have non-behavioral evidence about others' minds. Consider the following case. Skimming through the latest summary of new articles in my journals sent by PhilPapers, I find that your partner has a forthcoming article in a top journal. Given my background

3 The case of the Hogan twins

Now that we have a proper characterization of asymmetry, we can consider whether the twins' case threatens asymmetry.

Let me begin by saying why it is important to consider this real-world example. As emphasized above, I am concerned with whether you access your mental states in a way such that no one else actually has the ability to access your mental states in that way. If we just conducted a thought experiment, we might end up with a case that is logically or metaphysically possible but not physically possible. Such a case would not threaten the kind of asymmetry I am interested in.

Now, some details about the case. As I am writing this article, there have been no controlled studies of the twins. Our primary sources include several newspaper articles and documentaries. I will rely on Susan Dominus' (2011) article and Judith Pyke's (2014; 2017) two documentaries. Unlike most other newspaper articles which only provide general descriptions of the twins' lives, Dominus' article details many incidents which suggest that they share experiences. Pyke's documentaries, each following the twins through a year in their lives, are also valuable since they allow us to take a look at the twins' behavior and interaction ourselves. This is important because newspaper articles tend to exaggerate the twins' connection. Admittedly, our evidence is not conclusive, but I think it is good enough for us to take seriously the idea that the twins share experiences.

Due to the twins' neural connection, it seems that stimulation of each's body can cause the other to have experiences. They demonstrate this ability most obviously in the case of touch and that of pain.

Regarding touch, both twins can correctly report where the other's body is being touched with their eyes covered (Pyke, 2017, 05.30–06.10). Here, one incident in Pyke's 2014 documentary is especially noteworthy. At one point, when their neurologist touches Tatiana's left foot, Krista not only correctly reports where the neurologist is touching, she also reports "I can feel that" (Pyke, 2014, 18.25–19.09).

Regarding pain, both twins seem to be able to feel the other's pains. Here, two incidents in Pyke's 2017 documentary are particularly noteworthy. At one point, Krista reports "I have a headache" while they are visiting some place, and immediately afterwards Tatiana reports "My sister has a headache."¹⁵ It is very likely that Tatiana sees what Krista does and hears what Krista says. But Tatiana does not seem only to observe Krista's behavior. Instead, Tatiana seems also to feel Krista's headache. For one thing, Tatiana is crying. For another, when asked about it later by an interviewer, "Who gets the headache? You or Krista?" Tatiana replies, "Both of us. It's like big" (Pyke, 2017, 12.17–12.47). At another point, Tatiana falls down and hurts her bottom while they are sledding. When asked about it later by their mother Felicia, Krista

information about how much you want your partner to get published, it seems that I have justification to believe that you are happy and do so without observing your behavior.

¹⁵ Cochrane (2021) describes this case differently. He thinks that it is Tatiana who first feels the headache and it is Krista who reports "My sister has a headache." But note that immediately after one twin reports "My sister has a headache," their grandfather touches Krista, and the same voice reports "Don't touch my sister" (Pyke, 2017, 12.24–12.28). It is more likely that it is Tatiana who makes these reports. So while I agree with Cochrane that it is hard to tell from the documentary, I will stick to my description of the case.

reports that she felt it but it did not hurt, and that she was crying because Tatiana hurt her bottom (Pyke, 2017, 28.45–29.11). It could be that Krista felt the sensory aspects but not the affective aspects of Tatiana's pain.

These incidents are important since they involve self- and other-ascriptions of experiences. I will focus on these incidents below when I consider whether the twins' case threatens asymmetry. However, it should be noted that the twins also demonstrate their remarkable ability in other respects. For example, Felicia reports that Tatiana can see out of both of Krista's eyes, and Krista can see out of one of Tatiana's eyes (Pyke, 2017, 06.35–06.41). Tatiana seems to be able to experience the taste of the food that Krista is eating (Pyke, 2014, 15.15–16.01). And both twins seem to be able to move some of the other's limbs (Pyke, 2017, 15.37–15.51).

Although the twins are often said to share experiences, there is little discussion of what exactly it means for them to share experiences. Cochrane (2021) is a valuable exception. On Cochrane's view, the twins share experiences in the sense that they simultaneously have some experiences while being distinct subjects. Note that when they share an experience, it is not the case that they have the same overall phenomenology. Rather, their situation can be thought of as some sort of "phenomenal overlap." For example, when their neurologist touches Tatiana's left foot and Krista reports "I can feel that," there is a single tactile experience that both have. But since they look in different directions, presumably their visual phenomenology differs. As a result, their overall phenomenology also differs.¹⁶ It should also be noted that they never report that what it is like to undergo a shared experience is markedly different from what it is like to undergo an unshared one. While more evidence is needed, I suspect that the phenomenology of a shared experience does not tell them that it is shared. It is not as if a shared experience comes with a label indicating that it is shared. They need more information to tell whether an experience is shared or not.

On Cochrane's view, the case of pain best supports the sharing hypothesis. Cochrane (2021, pp. 1029–1031) reasons as follows. First, here is a plausible claim about the neural correlates of consciousness:

SAME CORRELATES, SAME EXPERIENCE: If experiences e_1 and e_2 have numerically the same neural correlates, then $e_1 = e_2$.

Second, since key stages of pain processing occur prior to and including the thalamus, and the twins connect at their thalami, pain processing that occurs in one twin's brain can serve as the neural correlates of both twins' pains. Finally, given SAME CORRELATES, SAME EXPERIENCE, it follows that they can have the same pains.

Giving a full defense of the sharing hypothesis is beyond the scope of this paper.¹⁷ I hope the above is enough for us to take seriously the sharing hypothesis.

¹⁶ In my usage, "experience" can denote parts of single encompassing conscious states of subjects at a time. One might instead use "experience" to denote those encompassing conscious states. On this line of thought, the twins' case needs to be restated in terms of which parts of experiences are shared. For convenience, I will stick to my usage.

¹⁷ For other interpretations of the twins' case, see Langland-Hassan (2015) and Cochrane (2021).

4 The case of the Hogan twins and asymmetry

So, does the twins' case threaten asymmetry?

For the sake of argument, I will grant that the twins sometimes share experiences in the way Cochrane suggests. I will now argue that even if they share experiences, their case does not threaten asymmetry.

Consider the case where both twins report that Krista has a headache. Call this case the "headache case." The headache case deserves special attention since it is the only case from the primary sources where both self- and other-ascriptions of experiences occur. I will assume that the headache case is a case of shared consciousness. That is, I will assume that the twins share a single pain—the pain Krista feels in her head *is* the pain Tatiana feels in Krista's head. I will also assume that Krista has immediate justification from the shared pain to believe that she is in pain. Recall the version of ASYMMETRY_c I am working with:

JUSTIFICATION-SOURCE (JS): You can have justification of kind J from sources of kind S to believe that you are in a mental state M such that others cannot have justification of kind J from sources of kind S to believe that you are in M.

To determine whether the headache case threatens asymmetry, then, we need to determine whether Tatiana has the same kind of justification (i.e. immediate justification) from the same kind of source (i.e. pain) to believe that Krista is in pain. Presumably, Tatiana's source of justification is also the shared pain. So Tatiana's source of justification is not just type-identical to Krista's source of justification; the sources are token-identical. The key question, then, is whether Tatiana has the same kind of justification (i.e. immediate justification) from the shared pain to believe that Krista is in pain. If the answer is "yes," then the headache case will threaten asymmetry—just as Krista can have immediate justification from the shared pain to believe that she is in pain, Tatiana can have the same kind of justification (i.e. immediate justification) from the shared pain to believe that Krista is in pain. If the answer is "no," then the headache case will not threaten asymmetry—while both Krista and Tatiana can have justification from the shared pain to believe that Krista is in pain, Krista can have justification of a certain kind (i.e. immediate justification) for the belief such that Tatiana cannot have justification of that kind for the belief.

So, does Tatiana have immediate justification from the shared pain to believe that Krista is in pain?

Note that this question is not about the psychological immediacy of Tatiana's belief formation. Tatiana's formation of the belief that Krista is in pain may well be psychologically immediate in the sense that Tatiana forms the belief without any conscious reasoning. But psychological immediacy is one thing, immediate justification is quite another. To determine whether Tatiana has immediate justification from the shared pain to believe that Krista is in pain, we need to determine whether Tatiana's justification for this belief comes in part from her justification for any other belief.

I will now argue that Tatiana does not have immediate justification from the shared pain to believe that Krista is in pain. To do so, I will show that Tatiana's justification for this belief comes in part from her justification for some other belief.

Let us take a closer look at the justificatory structure of Tatiana's ascriptions of pains. Since Tatiana feels a pain (in Krista's head), she has immediate justification from the (shared) pain to believe:

PAIN 1: I am in pain.¹⁸

The question is whether Tatiana also has immediate justification from the shared pain to believe:

PAIN 2: Krista is in pain.

I think she does not. Tatiana's justification to believe PAIN 2 comes in part from her justification for background beliefs about how their pains are linked. Given her past experiences, Tatiana is likely to have the following background belief:

LINK: Normally, if one twin feels a pain in a body part, then the other twin feels a pain in that body part.

It is because Tatiana has background beliefs like LINK that the shared pain gives her justification to believe PAIN 2. Here LINK plays a crucial mediating role. Once Tatiana's justification to believe LINK is defeated, her justification to believe PAIN 2 will also be defeated, but not vice versa. If Tatiana gains evidence, say, that their pains are no longer linked such that often one is in pain without the other being in pain, then her justification to believe LINK will be defeated, and so will her justification to believe PAIN 2. By contrast, even if Tatiana's justification to believe PAIN 2 is defeated, say, by opposing testimony from Krista, that need not defeat her justification to believe LINK.¹⁹

Note that Krista does not rely on background information in the way Tatiana does. Suppose Krista also believes LINK. Even if Krista has such background information, she does not *rely on* it when she gains justification from the shared pain to believe that she is in pain. What defeats Krista's justification to believe LINK need not defeat her justification to believe that she is in pain. If Krista also gains evidence that their pains are no longer linked such that often one is in pain without the other being in pain, then her justification to believe LINK will be defeated, but her justification to believe that she is in pain will not be defeated.

Let me now address some objections to my treatment of the headache case.

¹⁸ I assume that one has immediate justification from one's pains to believe that one is in pain, and that the twins are no exception to this rule. I will come back to this below.

¹⁹ Compare the case where the twins fall while sledding. Since Tatiana feels a pain in her bottom that hurts, she has justification from her pain to believe: HURT 1: I feel a pain in my bottom that hurts. When combined with LINK, Tatiana's pain gives her justification to believe: HURT 2: Krista feels a pain in my bottom that hurts. Krista later reports that she felt it but it did not hurt. Krista's testimony defeats Tatiana's justification to believe HURT 2 without defeating Tatiana's justification to believe LINK.

First, one might insist that since Tatiana gains justification to believe that Krista is in pain without observing Krista's behavior, Tatiana's justification is immediate. In response, while it may be true that observation usually goes hand in hand with inferential justification, it does not follow that lack of observation needs to go hand in hand with immediate justification. Even though Tatiana does not observe Krista's behavior, Tatiana's justification is inferential since she relies on background information. The twins' case shows that one's gaining justification to believe that another is in *M* without observing another's behavior is compatible with one's justification being inferential.

Second, one might protest that Tatiana has inferential justification from the shared pain to believe that she is in pain since she feels the shared pain in someone else's body. In response, it is plausible that when Tatiana feels a pain in her own body, she has immediate justification from the pain to believe that she is in pain. But, according to the objector, when Tatiana feels a pain in Krista's body, she has inferential justification from the pain to believe that she is in pain. Unless the objector has good reason to believe that a change of the felt location of pain leads to a change of the kind of justification Tatiana has, it seems arbitrary to treat the two cases differently.

So far, I have focused on the headache case. I believe that we can give a similar treatment of other cases of sharing. The justificatory structure of Tatiana's ascriptions of pains in the headache case can be generalized as follows. When the twins share an experience *e* of type *A*, each has immediate justification from *e* to believe:

EXPERIENCE 1: I have *e*.

When combined with their background beliefs about how their experiences of type *A* are linked, *e* gives each inferential justification to believe:

EXPERIENCE 2: The other twin has *e*.

Note that this justificatory structure can allow that as the twins grow, some previously unshared types of experiences start to be shared. As things stand, they do not seem to share, among other things, auditory and olfactory experiences. But we cannot rule out the possibility that as their lives unfold, they start sharing auditory and olfactory experiences and forming background beliefs about how their auditory and olfactory experiences are linked. If that happens, then their ascriptions of auditory and olfactory experiences to each other can be justified in a way that conforms to the justificatory structure.

In sum, when the twins share an experience *e*, each can have justification of a certain kind (i.e. immediate justification) from *e* to believe that she has *e* such that she cannot have justification of that kind from *e* to believe that the other has *e*. So even if they share experiences, their case does not threaten asymmetry.

5 Conclusion

It is striking that consciousness may be shared. It is no less striking that shared consciousness does not threaten asymmetry. The reach of asymmetry is larger than is commonly assumed.

Let me close by briefly sketching two upshots of our discussion.

First, there is no need to change the starting point for discussions of asymmetry. Philosophers usually start with the idea that there is an asymmetry between our access to our minds and our access to others' minds. By this they mean that there is an asymmetry between our access to our mental states and our access to those mental states of others that are not shared by us, taking for granted that mental states cannot be shared. The twins' case shows that mental states may be shared, and that asymmetry holds even in cases where mental states are shared. Our discussion thus suggests that there is an asymmetry between our access to our mental states and our access to others' mental states, whether or not they are shared by us. Somewhat surprisingly, while philosophers have neglected cases where mental states are shared, there is no need to change the starting point for reflection on asymmetry.

Second, given that asymmetry holds in the twins' case, it is natural to ask what the twins and normal subjects have in common such that asymmetry holds in both cases. One proposal appeals to the notion of "mineness." Some philosophers hold that our experiences are normally accompanied by a sense of mineness or ownership in the sense that we are aware of them as our own.²⁰ The twins seem to retain the sense of mineness despite sharing experiences.²¹ Neither twin ever disowns a shared experience and says that it belongs to the other twin. This is true even in the headache case. When Tatiana feels a pain in Krista's head, Tatiana first reports that Krista has a headache. But Tatiana does not say things like "That is not my headache. It feels as if it happens to someone else." Instead, Tatiana later reports that both she and Krista have the headache. The sense of mineness seems to be what the twins and normal subjects have in common. Just as normal subjects are aware of their unshared experiences as their own, each twin is aware of their shared experiences as her own. The proposal, then, is that the sense of mineness plays a significant role in maintaining asymmetry. Developing and assessing the proposal is left as an exercise.

²⁰ What the nature of the sense of mineness is and whether there is such a sense are matters of controversy. For discussion, see the papers in the special issue edited by Farrell and McClelland (2017) and Guillot and García-Carpintero (forthcoming). For a survey of cases of loss of the sense of mineness, see Klein (2015).

²¹ On Klein's (2015) view, when the twins share an experience, only the twin in whose body the experience originates is aware of it as her own. Commenting on Krista's ability to report what Tatiana has in her hand without seeing or touching it and to point precisely with her eyes covered to the spot on Tatiana's body where she was being touched, Klein says: [Krista] can correctly attribute shared experience (e.g., feeling of possession, feeling of touch) to her sister (and Tatiana can do the same). That is, the twins correctly ascribe occurrent mental states to the person in whom the states originated. [Krista] does not say "I have a toy bird" or that "I have been touched"; rather, she says that Tatiana has the toy bird and Tatiana has been touched (p. 367). Klein only cites Dominus (2011). But, as we saw, Pyke's (2014; 2017) documentaries show that the twins ascribe shared experiences to themselves even when the experiences do not originate in their bodies. So it seems more plausible that when they share an experience, each is aware of it as her own, whether or not it originates in her body.

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