

# Presuppositions and Background Assumptions

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ERIC

**Christopher S. Hill**<sup>1</sup> argues that “It is futile to seek a *presuppositionless* method of studying introspection” because “we inevitably use concepts that are associated with a theory when we attempt to characterize the objects of introspective awareness and also when we attempt to characterize introspection itself” (ref \*\*\*). Thus, “every method has substantial presuppositions” (ref \*\*\*). Hill therefore recommends that rather than trying to bracket presuppositions in collecting subjective reports, researchers should offer subjects an improved, scientific conceptual framework, where there is good evidence that it is superior to the conceptual frameworks of folk psychology.

Russ and I have decided to start our reaction to the commentaries with the issue of bracketing presuppositions both because Russ thinks bracketing presuppositions is crucial to the study of experience and because it is the issue on which Russ and I have been least satisfied that we have understood each other.

I am approximately in agreement with **Hill** on the futility of seeking presuppositionless methods, though I might recommend a lighter touch with the scientific vocabulary than **Hill** seems to want – perhaps offering scientific vocabulary to the subject as a possibility rather than requiring the subject to use it.

Let me develop the point a little farther. Contra what Russ seems to be saying (which

presuppositions both necessary and good

**Claire Petitmengin** also apparently endorses), **presuppositions are both necessary and good**. They are necessary and good because presuppositions are built into the very having of concepts, into every action, and into every perceptual, theoretical, memorial, and introspective judgment. When I walk into a building, I presuppose that the floor will support me. When I sit on a bus, I presuppose that the person next to me won’t punch me in the nose for no reason. Walking past an orchard, the splashes of red I see among the trees I assume more likely to be apples than coffee mugs. It will take more evidence – rightly so – to convince me of the latter than the former.

In both cognitive science and folk psychology, the dominant metaphor for memory – a metaphor that both reflects and reinforces a certain way of thinking about it – is the metaphor of storage and retrieval, often with a search in the middle. This metaphor is misleading in a number of ways, but there’s one aspect I wish to highlight here: On the storage-and-retrieval view, memory is a process that, once initiated, can and typically should operate largely independently of other cognitive processes. Processes like inferring, imagining, and perceiving *interfere* with pure remembering. To the extent such processes influence one’s final judgment about some remembered fact or event, one isn’t really quite *remembering* it.

Bartlett (1932), Neisser (1967), Roediger (1980), and Sutton (1998) have ably described various infelicities of this storage-and-retrieval view. If I tell you a story about, say, a cricket

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<sup>1</sup> “H&S” refers to Hurlburt & Schwitzgebel (2007), the target book of this symposium. Items in bold face refer to contributions appearing in this symposium: bold face names identify authored contributions; bold face titles refer to contributions written by Russ and or Eric.

**Comment [E.S.1]:** Note to editor: The highlights here indicate the place in the text to which the text box should be tagged. The highlighting is not to be included in the final document.

Although the text boxes may present a bit of a copyediting/formatting hassle, we think they are worth it. The articles are long and cover many topics, so the reader needs some flags. We found that including section headers within the dialogue both seemed unnatural and introduced a confusing cross-layering of conversational turn headers and topic headers. The side boxes for topics seems the ideal solution.

match and ask you to recall it later, you will not reproduce the story verbatim. Nor will you produce gappy but otherwise verbatim pieces of the story. Rather, you will produce a new version of the story, in light of your general background knowledge of cricket. This partially-inventive process is especially revealed by plausible mistakes and interpolations, but there's no reason to suppose that it would *only* be mistakes and interpolations that arise from the heavy influence of background knowledge. Someone without a background knowledge of cricket, or with a much better background knowledge of cricket, would both digest and retell the story differently. Memorial judgments, especially of complex events, arise from a confluence of

memories necessarily reconstructive

cognitive processes, not a single search-and-retrieval mechanism. They are **necessarily reconstructive**. Imagination, inference, the application of pre-existing schemata, and other cognitive processes

are not separable from the process of remembering but rather an integral part of it. They are not interfering or aiding forces from which a "pure" act of remembering could be isolated.

Background beliefs or presuppositions – working assumptions about what kinds of things are relatively likely and unlikely, how the world divides up and fits together – thus play an ineliminable role in memory, including the memory of "beeped" moments of experience.

An event transpires in your stream of experience – an image of warplanes in flight, say – and then the Descriptive Experience Sampling (DES) beep occurs. That event is now gone. There's no reason to think your brain would have stored a detailed and enduring record of that event as it was ongoing. You might try to retain that image of warplanes over the duration of the beep and the post-beep reflection, using the retained image as a model for the image as it existed at the moment of the beep; but surely it's plausible to suppose that the image might be transformed, elaborated, or rendered artificial in the course of retention, and it might be very difficult to detect such changes reliably, accurately accounting for them and subtracting them when reaching judgments about the target experience. You might, as **Petitmengin** recommends, try to replay or re-enact the image, if it was momentarily lost, which would appear to invite all the same risks if not more (risks that make me even more nervous about **Petitmengin's** method than about DES). Or you might try to recall the image, without retaining or replaying it – perhaps purely linguistically? – but this too will be a constructive or reconstructive act, involving for example one's knowledge of warplanes, how you take them generally to look, knowledge of the outward event that inspired the image (a passage in a book, say), and probably also one's general opinions about imagery. It will not be the simple retrieval of a recorded trace, in high or low pixilation, but rather elaborative, constructive, and plausibility-and-schemata-grounded, like the subjects' recollections of written stories in Bartlett's classic (1932) study.

Hours later, you are interviewed and the reconstructive process begins again, with the target even less fresh but – perhaps compensatingly – with more available bases for the reconstruction: all the general knowledge (or opinions), schemata, and skills that were originally available (except literal retention); plus one's knowledge of or best recollection of the other processes that occurred after the beep; plus one's written notes; plus cues (maybe subtle) from the interviewer; plus one's knowledge of the intervening beeps and interviews.

confluence of influences on DES reports

From this **confluence of forces** issues an utterance, "they're jet planes with a tapered nose and that kind of dark gray steel with a..." (H&S, p. 108), which the interviewer interprets in accord with her own system of schemata and prejudices.

That, I think, is the cognitive process underlying interviews about sampled experience – both in DES and in **Petitmengin's** explication. It should be evident then: (1) that there is

plenty of room for error, and (2) that background beliefs, assumptions, schemata, and categories are inseparable from the process, with all of their attendant risks and benefits. It is incoherent to suppose that one could suspend all presuppositions and do anything like ordinary cognition.

### RUSS

A presupposition is a preconception, something that is taken for granted. It is a notion about the world that is so fundamental that it exists prior to critical examination. It is something accepted without controversy as being true, something that shapes perception, behavior, and affect without the fact of that shaping being noticed or recognized. It is an unquestioned manner of relating to the world that chooses what is seen and what is not seen, what is experienced and how it is experienced, so invisibly that what is seen and experienced seems to be the world itself, not aspects of the world selected, shaped, and distorted by the presuppositional process. (Hurlburt & Heavey, 2006, p. 151)

**A presupposition is** a characteristic turning away from evidence that might counter that view, a persistent assumption that one's methods are adequate (and therefore a disinclination to examine or improve those methods or to commit to the practice required to improve the skill with which one uses them). Presuppositions arise from (and at the same time create) a personally-advantageous and self-sustaining mix of prideful, professional, social, economic, and so on influences.

Eric, you lump presuppositions into the "background beliefs" category ("working assumptions about what kinds of things are relatively likely and unlikely, how the world divides up and fits together"), a distortion similar to lumping the Arab-Israeli situation into the "disagreements" category: both lumpings overlook the definingly powerful human motivations. Knowledge (or lack thereof) about cricket is similar to a presupposition only to the extent that ignorance is similar to delusion. By emphasizing the similarity between presuppositions and concepts, schemata, and general knowledge, I fear you mask the fact that the failure to try relentlessly to bracket presuppositions can be and often is toxic to science in a way that accepting ordinary reconstructive processes is not.

I will make two preparatory observations and then will provide some examples. First, I agree that being presuppositionless is beyond my reach, and I accept that I have written things that could be interpreted as my advocating being presuppositionless. Therefore when you and Hill say that it is impossible or incoherent to bracket all presuppositions, and what you mean is that memory is necessarily reconstructive in this way, then I agree with that, too. However, actually I don't advocate being presuppositionless; I advocate relentlessly trying to bracket all presuppositions that arise, which is quite a different thing.

Second, I agree completely with your and Bartlett's reconstructive view of memory, and I agree with your characterization of DES as relying on constructive or reconstructive memory at the two time frames you identify: the contemporaneous apprehension of experience during the jotting down of notes about the experience (say 10 or 60 seconds after the beep) and the recollection of the experience during the interview (a few hours later). However, there are actually *three* (not two) time frames on which something like memory is required by DES; you overlook the immediate (short term memory) apprehension of the experience (within, say, a second or so after the onset of the beep). There is a lot of evidence to suggest that short term (within a second or so) memory is not reconstructive in the same way as are the longer term

memories you discuss. That is an important distinction when you take into consideration the iterative nature of DES (for a more complete discussion see **Clarifications of DES**). For example, on Melanie's first sampling day, we discussed with Melanie her putative self-consciousness. It is likely that that discussion informed and improved her interest/skill in recognizing and discriminating self-consciousness should it appear on the second sampling day, and that recognition/discrimination may then occur at the moment of the experience—that is, within the short-term-memory time frame. Therefore as the iterative process takes effect, short-term-memory apprehensions are probably *not* as colored by the background assumptions of reconstructive memory as you worry for the other time frames. That is one reason that DES is fundamentally an iterative procedure.

You would like me to give a precise definition of “presupposition” that makes clear exactly how presuppositions differ from less toxic concepts, schemata, and general knowledge, but I don't think that is possible, just as it is not possible to draw a clear division between disagreements like “*Avatar* is a better movie than *The Hurt Locker*; No it's not!” and “The Israelis have more right to Jerusalem than do the Palestinians; No they don't!” All presuppositions, concepts, schemata, and general knowings (and disagreements) contain at bottom some kernel of toxicity. Some things, however, are more toxic than others; some toxicities are more specific to the particular investigation at hand than are others. Perhaps I can clarify by providing some examples and analogies.

*Example 1: Inner Speech.* For whatever reason, researchers in consciousness studies appear to be especially prone to toxic presuppositions about inner speech. Consider the following quotes:

Human beings talk to themselves every moment of the waking day. Most readers of this sentence are doing it now. It becomes a little clearer with difficult-to-say words, like ‘infundibulum’ or ‘methylparabine’... Overt speech takes up perhaps a tenth of the waking day; but inner speech goes on all the time. (Baars, 2003, p. 106; cf. H&S p. 269)

Human beings...engage in a continual running commentary with the events going on around us. ...It is doubtful if there is a (normal) human being who is unaware of an internal dialogue which silently voices sentiments like, ‘Isn't he ever going to stop talking?’, ‘Careful, that truck's pulling out’, or, ‘I can't face that again.’ Moreover, we all also know that these are not just idle commentaries. ...Since this experience is so universal and continuous to human beings, and also one of which they are acutely if not infallibly aware, one wonders why it has suffered such considerable neglect (Archer, 2000, pp. 193-194).

[Inner speech] shows a tendency toward an altogether specific form of abbreviation, namely: omitting the subject of a sentence and all words connected with it, while preserving the predicate [Vygotsky calls this *predication*]. This tendency toward predication appears in all our experiments with such regularity that we must assume it to be the basic form of syntax of inner speech....

This tendency [predication], never found in written speech and only sometimes in oral speech, arises in inner speech always. Predication is the natural form of inner speech; psychologically, it consists of predicates only. It is as much a law of inner

speech to omit subjects as it is a law of written speech to contain both subjects and predicates (Vygotsky, 1986, p. 236-237, 243).

When we utter a word, we cannot help but mentally see an image of its written version. In our heads, what we have said ... is that sequence of written symbols. When we say “dog,” a little picture of that word flashes through our minds, *Sesame Street*-style.... Imagine saying “dog” and only thinking of a canine, but not thinking of the written word. If you’re reading this book, it follows that you couldn’t pull this off even at gunpoint (McWhorter, 2003, p. 3).

Not all these writers can be correct, and our DES work shows to my satisfaction that **none**

Presuppositions  
about inner speech

**is correct.** Regarding Archer and Baars, Heavey and Hurlburt (2008) showed that inner speech occurs in (normal) human beings about a quarter of the time, and in some people never or hardly ever.

Regarding Vygotsky, my own extensive but unpublished observations show that predication is no more common in inner speech than in external speech. Regarding McWhorter, images of written words are very rare, perhaps less than one percent of samples, and *more* rare while uttering words aloud than when silent.

What makes these significant from the standpoint of presuppositions is not that they (at least some of them) are mistaken—that’s merely ignorance—but the unquestioned assumption that apparently lies behind their mistakes: the ubiquity of inner speech. Each apparently took it as his task to explain some aspect of that ubiquitous inner speech without considering the possibility that that ubiquity was itself nonexistent. It is that assuming without question that makes this kind of presupposing toxic to consciousness science; the blindness, the systematic vigorous turning away from phenomena is revealed by the dogmatic nature of their own writings: “It is doubtful it there is a (normal) human being who is unaware”; “acutely if not infallibly aware”; “[predication] arises in inner speech always”; “It is ... a law”; “you couldn’t pull this off even at gunpoint.” Mere ignorance is easy to correct; unquestioned assumptions are deeply rooted and stubborn.

It is possible that Archer himself does in fact have non-stop inner speech, that Vygotsky himself did in fact constantly predicate, and that McWhorter himself constantly sees pictures of words when he talks. But (a) I’d bet against it and (b) even if true, they have no warrant dogmatically to generalize from their own experience (see **Methodological Pluralism**). Getting inner speech right is pretty central to consciousness science, and, in my view, presuppositions toxically interfere with science’s getting it right.

The remaining examples are drawn, one by one, from the contributors to this symposium, starting with you, Eric. If toxic presuppositions are a problem for them, it seems likely that presuppositions are widely problematic in consciousness studies.

*Example 2: Eric.* Eric gave several subjects beepers and asked them to report on whether, at the moment of the beep, they were having tactile experience in their left foot (H&S Ch. 10.3; Schwitzgebel 2007). Eric asked other subjects to report on their tactile experience more generally, or on their visual experience, or on their visual experience in the right periphery of their visual field. While Eric’s interviews of his subjects were fairly even-handed (to judge from the samples he shared with me), his prompting them to consider the issue important to *Eric* and the type of experience *Eric* is interested in, privileges *Eric*’s distinctions and interests over all

others. He thus coerces his subjects into looking more directly at *his model* than at their own experience. We should expect subjects' reports not to reflect faithfully their experience, but rather to reflect, just as much, their response to the pressures and framework that Eric imposes upon them. (See also **Mark Engelbert and Peter Carruthers** for a different criticism of Eric's rich-thin study.)

*Example 3: Kane.* **Michael J. Kane** published in 1994 a view of the inner experience in Tourette Syndrome based on his own introspections, in which he characterized himself as having frequent inner speech, inner seeings, and general hyper-awareness of bodily sensations. He freely acknowledged that he was quite attached, personally and professionally, to this view. His DES sampling as part of this symposium showed, to his surprise, that inner speech and visual imagery were rare for him. He did experience frequent sensations, but those were predominately of the external world rather than bodily. Thus in my view, for decades **Kane** has held powerful but incorrect presuppositional views of the inner experience in Tourette Syndrome that could be exposed by an adequate bracketing of presuppositions in DES interviews.

*Example 4: Hill.* **Hill** (\*\*\*) ref) implies that there is some scientific consensus about his three-kinds-of-pain-experience view, according to which there is "peripheral pain" ("peripheral bodily disturbance"), "somatosensory pain" ("somatosensory representation of that type of disturbance"), and "pain affect" ("a complex pattern of activity in the anterior cingulate cortex and certain other parts of the limbic system"). He holds that **subjects should be trained** in this three-aspect system as a way of improving the accuracy of their reports. **Hill** attributes the three-kinds-of-pain-experience view to Price (1999). Price does indeed discuss three

Hill on training pain reports
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aspects of pain, but they seem to be three *different* aspects from **Hill's**: a bodily sensation, an experienced threat, and a feeling of unpleasantness (Price, 1999, pp. 1-2). So I do not accept **Hill's** premise that there is a scientific consensus about pain phenomena.

If **Hill's** view of the phenomena of pain is not absolutely correct (which seems a live possibility given Price's view), training subjects in his view is likely to *decrease* the fidelity of their reports about pain. It will make it difficult for them to focus on *their own* pain experience because they will be encouraged to focus on one or another aspect of **Hill's** (possibly incorrect) view. As a result, **Hill's** subjects would likely give reports aligned with his theory at the expense of fidelity to their own experience. Because **Hill's** subjects focus on **Hill's** theory rather than on their experience, **Hill's** failure to bracket presuppositions is toxic to his endeavor: it undermines his ability to validate his theory.

*Example 5: Petitmengin.* As you pointed out above, Eric, **Petitmengin** helps her subjects to replay or re-enact experiences from the perhaps distant past. That procedure rests on the presupposition that such replaying/re-enacting is possible and that the replaying/re-enacting process does *not* inject its own substantial new material based on current interests, the current social situations, current cognitive development, current state, and other well known heuristics. I think all that is doubtful (Hurlburt & Akhter, 2006), largely because I think you, Bartlett, Neisser, Roediger, and **Sutton** are right about the reconstructive nature of recollection, and I presume it is that same concern that make you "nervous" about **Petitmengin's** method. There may well be some phenomena and some situations where **Petitmengin's** assumptions are correct, but rather than explore which phenomena and which situations, she seems quite sure that

replaying/re-enacting is possible. It is that surety-without-examination that I call presuppositional, and which I fear is toxic to her endeavor, a fear which you, Eric, apparently share.

*Example 6: Siewert.* **Charles Siewert** relies on what I called in H&S “armchair introspection,” which rests on the presupposition that one’s own self-targeted, self-occasioned, theory-informed introspections do not unduly influence the pristine phenomena, a position I argue against in **Methodological Pluralism**. I note that **Siewert**’s contribution to this symposium does *not* counter my H&S criticisms of armchair introspection; instead, Siewert argues that DES has its own inadequacies, a position I freely accept but which does nothing to defend armchair introspection. I take that as evidence that **Siewert**’s view of self-targeted, self-occasioned, theory-informed introspection is presuppositionally rooted: **Siewert** seems to be saying that *of course* self-targeted, self-occasioned, theory-informed introspection has a central place in consciousness science. I accept that it does have some circumscribed place, but its current use is, I think, toxic: it’s likely that Baars, Archer, Vygotsky, and McWhorter arrived at their (I think) faulty understandings courtesy of armchair introspection. See **Methodological Pluralism**.

*Example 7: Horgan and Timmons.* **Terry Horgan and Mark Timmons** write, “Might there be a way of generating descriptive data about people’s agentic experiences that involves relatively presupposition-free questioning vis-à-vis views about free will and agentic experience generally? We don’t see why not” (\*\*\*) ref). That question reveals a presupposition that I think has two equally bad ramifications. It is difficult to ask presupposition-free questions that specifically single out the experience of free will, because the singling-out question itself strongly tilts the playing field towards reporting the experience of free will, whether or not that experience exists. That is, **Horgan and Timmons** appear to be suggesting a study that **forces the subject into a preconceived frame**, as would **Hill**’s study (and as does Eric’s tactile-left-foot study discussed above). Even if **Horgan and Timmons** are genuinely open about what kind of agentic experiences might be discovered, entering the experiment with a model that subjects’ reports are held against, and privileging reports of one type over another, already poisons the well. Similar risks attend **Engelbert and Carruthers**’s otherwise welcome suggestions for directions to expand DES methodology.

As a result, a study such as **Horgan and Timmons** suggest is highly *unlikely* to discover what they seek. This is unfortunate, because if they asked truly presupposition-bracketed questions, inquiring about experience *whatever that experience might be*, including the experience of free will *or not*, they might discover something fascinating about the experience of agency. In 1993 I wrote about the phenomenon of the “doing of understanding,” suggesting that when some of my anxious subjects were engaged in conversation when another was speaking, they experienced a powerful direct-in-experience *necessity* to work hard at, actively reach out for, purposefully assemble their understandings of the other’s speech. That is in distinct contrast with non-anxious subjects, for whom understanding is experienced as occurring with no sense of agency, work, or effort whatever—as if understanding happens automatically. Since 1993 I’ve corroborated that view, although I have not written about it since. The point here is that I’m pretty sure that if one sets out specifically to explore agency in the way **Horgan and Timmons** seem to suggest, *one will overlook entirely the doing of understanding phenomenon*, and such

overlooking would deprive the investigator of a potentially fruitful slant on agency. Neda Raymond and I amplify this point in **Agency: A Case Study**.

*Example 8: Klinger.* **Eric Klinger**, like most scientists of imagery, apparently believes that everyone has visual imagery, and that the differences in vividness of imagery “arise from individual differences in the varying thresholds for admitting anything—sensory, cognitive, and emotional properties—into focal consciousness” (\*\*\*) ref). That is possible but unlikely, I think, because there are large individual differences between people, and those differences are not threshold differences. Iman Abdulmajid could not be a National Football League lineman because of her body type, *not* because she has some differing threshold. I think it reasonable that inner differences are just as different as exterior differences.

presupposition of  
universalism about  
imagery

**Klinger** seems, like most imagery scientists, to hold a **universalist position**, as if everyone has the same kind of imagery to which some people have easier access. He writes, “I have applied the classic window-counting exercise to numerous people, ...[and]

everyone...uses some variation of imagining walking around the house or, alternatively, walking into each room, and counting the windows” (\*\*\*) ref). That statement is, I think, quite typical of exploration of phenomena in the science of imagery, and it suffers from all the disadvantages of armchair introspection (see **Methodological Pluralism**) plus social pressure from the interviewer, and therefore deserves substantial skepticism. Here’s a kind of study that has *not* been performed: Train a group of subjects in the DES procedure in their natural environments for enough days that they become adequately skilled at the method. Then engage them in the classic window-counting exercise and deliver a seemingly random DES beep during that event. Do that often enough, and one could discover what indeed occurs in the experience of a variety of individuals as they deal with that task. Such studies have not been undertaken, largely, I think, because consciousness science shares the (I think) toxic presupposition that imagery is universal with varying thresholds, so such studies are not necessary.

*Example 9: Engelbert and Carruthers.* The case of **Carruthers** and presuppositions about unsymbolized thinking is especially instructive. Fifteen years ago, Carruthers argued against the existence of unsymbolized thinking (1996). I thought that argument was based on **faulty presuppositions** and said so in Hurlburt & Akhter (2008). As a result, Carruthers (2009) accepted the existence of unsymbolized thinking but mischaracterized it (by my lights) as “purely propositional.” Thus it seems that **Carruthers** rolled back one presupposition and replaced it with another. I pointed out that mischaracterization in Hurlburt (2009), suggesting that unsymbolized thinking was a directly observed phenomenon, not a behind-the-scenes proposition. As result, in this symposium **Engelbert and Carruthers** accept the phenomenal nature of unsymbolized thinking and suggest the following experiment: “Subjects who are already known [from prior sampling] to have a high proportion of unsymbolized thoughts could be asked to sit quietly in a dimly lit room allowing their minds to wander... In these circumstances one might hope to get a high number of reports of unsymbolized thinking” (\*\*\*) ref). But there is nothing that I know of about unsymbolized thinking that suggests that unsymbolized thinking is more frequent while sitting quietly in dimly lit rooms—that apparently reflects some presupposition of **Engelbert and**

Carruthers’s  
presuppositions about  
unsymbolized  
thinking

**Carruthers.** Thus it seems that **Carruthers** rolled back the second presupposition and replaced it with a third.

To his credit, **Carruthers** has evolved his view of unsymbolized thinking. But at every step of the way, his newly emerging presuppositions have toxically interfered with his ability to grasp this phenomenon with fidelity: at first he presupposed that unsymbolized thinking couldn't exist; then he presupposed that if it existed, it must be purely propositional; then he accepted that it was phenomenal, but presupposed that it must occur most frequently in dimly lit rooms. Such a sequence is highly typical: presuppositions don't give up without a fight.

*Example 10: Spener.* Many scientists would agree with **Maja Spener's** statement, "Most, those of us with a sceptical bent included, would accept that one can believe a subject's report that she is having a conscious experience of some sort right now, or that she is currently in pain, or that she is having a visual experience. This is because we assume that it is highly unlikely that people can be radically mistaken about their conscious lives" (\*\* ref). However, I have observed that many people are radically mistaken about their conscious lives. For example, **Kane**, in this symposium, had no knowledge, prior to sampling, that his experience consisted of much visual sensory awareness. Kane is not an exception; most people are to some degree mistaken, many radically.

That presupposition that it is "unlikely that people can be radically mistaken about their conscious lives" is, I think, toxic to the science of experience. It lies behind the not-sufficiently-critical acceptance of self-report and armchair introspection, and discourages science from developing (or at least trying to develop) methods that might in fact reduce the frequency of such radical mistakes.

*Examples 11 and 12: Sutton and Piccinini.* My presupposition detectors are quite silent in reading **Sutton's** and **Gualtiero Piccinini's** contributions. They jangle really only on one small detail. **Sutton** claims that I expect 17 DES-collected episodes to "trump an accumulated life." Actually, I have no such expectation: See **Clarifications of DES.**

Thus, of the 11 contributors to this symposium, my presupposition detectors jangle for 9 or maybe 10, depending on whether you count **Sutton**. I remind the reader that the symposium contributors were selected at least in part because of their prominence and the quality of their work; it is reasonable to suppose that presuppositions would be *more* problematic for a non-select group, although that would have to be shown. Thus I think that bracketing presuppositions is a major issue, striking at the heart of consciousness science.

*Analogy 1:* Eric, you say that "I presuppose that the floor will support me." I also presuppose that. But we presuppose that exactly because the system has created a particular class of

building inspector and hunter analogies
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individuals ("building inspectors") whose job is precisely *not* to presuppose that. Building inspectors are trained to set aside appearances of solidity and structural adequacy and examine the solidity and structure for themselves. I want the building inspector to try to bracket all presuppositions related to construction adequacy, to try not to be taken in by the surface appearance, or by the adequacy of the drawings, or by the reputation of the builder, or by anything that you or I would take for granted when we step out of the elevator. I want the

building inspector to look for herself: to take her own core samples, X-rays, ultrasounds, whatever it takes to establish for herself that the construction is adequate.

*Analogy 2:* We're stranded in the deep forest. Russ sets out with his gun to get food.

**Charles:** What are you hunting for?

**Russ:** I don't limit myself with such predefined intentions—I'm going to shoot whatever I see that looks like food. Once I see something, then I'll invoke appropriate distinctions: if it has feathers I'll aim high; if it has antlers on one end, I'll aim nearer that end, and so on.

We're stranded in the deep forest. Charles sets out with his gun to get food.

**Russ:** What are you hunting for?

**Charles:** Squirrel. I have researched the habits of black squirrels, tree squirrels, Delmarva Fox Squirrels, and American Red Squirrels, and I have developed four hunting techniques, one specialized for each. I examine the foliage to determine which kind of squirrel is likely to be present, and then use the appropriate technique.

Charles's technique is superior if (a) he's right about the squirrel habits; (b) there really are squirrels in the forest; and (c) there aren't deer, turkey, or anything else that might be better to eat than squirrel. I have great faith in random sampling. If there are many squirrels, sooner or later I'll find them and then hire Charles to teach me how to shoot them. But if the forest is teeming with birds, deer, and corn, but not squirrels, Charles will starve to death. (For discussion of whether it is fair to use "Charles" here – as in **Siewert** – see **Methodological Pluralism**.)

What all these examples and analogies try to illustrate is that a presupposition is a point of view that is so taken for granted that it invisibly affects everything in its range of convenience: it shapes what counts as evidence, specifies what seems necessary and what seems wasteful, dictates the time and energy that seems useful to invest in something, and so on, and in so doing predetermines the range of possible outcomes of any investigation, blinds the investigator to what is overlooked, and perhaps above all provides an unwarranted sense of confidence in the justness of the cause. All this is difficult or impossible to observe in oneself, and I fear that the current version of consciousness science favors the collusive overlooking of such blindnesses in other scientists.

### ERIC

Russ, I'm not going to be able to react to all of the above, but here are a few thoughts:

On **Hill**: I'm inclined to agree, Russ, that **Hill** overstates the degree of consensus about pain, though my impression is that most researchers do think that there are aspects of pain that can be pulled apart, in ways that lay introspectors don't think to do without some prompting, such as "fast" vs. "slow" pain or sensory vs. affective dimensions. I agree that it would be problematic to *impose* one of these distinctions on subjects, especially without an appreciation of the risks in doing so. However, it seems potentially helpful to point out to a subject that some researchers have made distinctions along these lines (explaining in some detail if necessary), inviting the subject to employ the distinctions if she finds them useful.

On my own work: I acknowledge that there will be potentially distorting pressures that come from applying any frame or distinction upon the reports, even if one tries to be open to answers of any sort, including answers that reject the frame, as I try to be, and as temperate

versions of **Hill** or **Horgan and Timmons** presumably would also try to be. However, there will also be questions that will resist the application of unmodified DES – questions that require some conceptual preparation or that require that the subject try to notice aspects of her experience that might not be the first thing she would think to notice. This is one reason why I recommend trying to find convergence among flawed methods. (See also **Methodological Pluralism**.)

I draw the same pluralistic lesson from the analogy of the hunters. I want both types of hunter in the forest.

Russ, I think when you say that you aim to bracket all presuppositions (or all against Baconian philosophy of science presuppositions “that arise”), you evoke the ill-conceived scientific ideals of **Bacon** (1620/2000) and Descartes (1641/1984) – in particular the ideal of conducting inquiry completely free of background assumptions. The incoherence of that ideal was, I think, amply demonstrated by twentieth-century philosophy of science (especially Popper 1935/1959 and Kuhn 1962/1970) and twentieth-century cognitive psychology (including the work on memory I discussed above). Without background assumptions, and the categories and schemata that depend on and embody them, one is as cognitively naked as the empiricists’ baby, all sensory input only a buzz of confusion. This is true, I submit, regardless of temporal span. Contrary to what you seem to be suggesting above, Russ, our perceptions, judgments, and memories are thoroughly theory-laden, category-laden, and constructive or reconstructive from the start – even within one second of the DES beep.

I think we agree that twentieth-century philosophy of science is an improvement, in this respect, over seventeenth-century philosophy of science. And I think we can agree that there are cases in which it is a vice to adhere too rigidly to one’s background assumptions and to discount too sharply evidence that conflicts with them. [Russ says: We agree on both.] Consider your hunter analogy. If Charles is right in his assumptions, then he will be better off than Russ. The greater the likelihood that he’s not right, the better off we are having Russ-like hunters in the forest. Furthermore, the Russ-like hunter, as I’m imagining him, will not “bracket” – at least not in any substantial sense of the term – all of his hunting-related knowledge. He will not set aside all his knowledge about squirrel behavior, his knowledge of the difference between deer tracks and squirrel tracks, his knowledge of the fact that wind can carry odors, his knowledge of how to shoot a gun. Such knowledge, I assume, is well grounded enough that unless there are signs that something is amiss with it (e.g., the deer seem to keep scenting Russ, though Russ would swear he’s downwind), he will act with that knowledge as working background. The core problem, then, as I see it – and as it seems to manifest in the dozen examples of presuppositions listed

only ill-grounded presuppositions toxic above – is that often what consciousness studies takes for granted **doesn’t merit** being taken for granted. The Charles-like hunter has been reading, you think, from a bad manual or a manual that applies only to very different forests. We know far less about the stream of experience than we suppose; many of our working assumptions are false. The problem is not that working assumptions in general are toxic; it’s that there are toxic ones in our soup.

And thus it pays to be like the building inspector, explicitly examining the theoretical structures we bring to our study of the mind. But contrary to what you say, Russ, the building inspector does not and cannot bracket *everything* pertinent to construction adequacy. She checks the strength of the floor at positions A, B, and C, and then, given her knowledge of building principles and the properties of materials, she feels licensed in concluding that it is also sufficiently strong at point D nearby. She assumes that concrete will not dramatically lose its

strength over time. Barring any evidence of defect or strange outputs, she assumes that her instruments are working properly – except at certain moments when she is actively testing them. She has only an eight-hour day and she needs to make choices about what to check and what at least tentatively to accept.

It seems that a skilled building inspector will engage in two rather different epistemic activities. The first, it seems to me, we can rightly think of as “bracketing”: Although the rebar looks good, she checks it just to be sure. Although her voltmeter is giving no signs of defect, she checks it occasionally, against known voltages. This kind of **active bracketing**, I’d suggest, can only be of limited scope: Our cognitive boat still needs to float while we remove and check a one or a few boards; we can’t suspend everything all at once; we only fool ourselves, and blind ourselves to our biases and deficits, if we think we can hoist ourselves boatless across the sea.

active bracketing vs. nose for trouble
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The inspector’s second skill is a nose for signs of trouble – a skill much harder, perhaps, to codify and a skill only acquired through long experience. Maybe although the floor at A, B, and C tests out okay, there’s something a little weird or funny-looking about the floor at point D that calls out for testing. Maybe although the rebar generally passes, it sags slightly in one corner, or maybe there’s something peculiar-seeming about how the windows are installed. The skilled building inspector will be attuned to such anomalies, so that even though she cannot actively check and explicitly test everything, as she looks around and uses her instruments, she is sensitive to a vast array of details – and that attunement seems to require deploying a large array of implicit assumptions, background knowledge, schemata, and prototypes.

So also in DES. I don’t think it makes sense to try to bracket all assumptions pertinent to conscious experience: That would be like the hunter bracketing his knowledge of which end of the gun to point toward the animal or the building inspector bracketing her knowledge of whether the voltmeter tests voltage or amperage or ectoplasmic vibration. Unless there are signs of trouble, unless the interviewer’s nose picks up something funny, the DES interviewer will, I think, tend to assume that when someone says “I experienced it as physically inside my head” that that person has a relatively normal body-map according to which the head is not enclosed like the heart in the middle of the chest. The interviewer will not bracket the assumption of a relatively normal body map, I think, as much as hold it lightly, implicitly attuned to signs of trouble. Barring indications of something unusual in the subject’s time experience, the DES interviewer will not think to ask the subject if she experiences time in one dimension or two different independent dimensions. In interviewing Melanie, I don’t think you, Russ, were bracketing the presupposition or background belief that Melanie was speaking English as opposed to a weird possible language that sounds just like English but in which the words all mean something else entirely. Maybe you were holding that assumption lightly; maybe you were sensitively alert for places where she might be using words differently than most people do; but that attunement or holding lightly seems to me epistemically and cognitively very different from active bracketing of the sort the building inspector does when she runs her tests or the Russ-like hunter does when he says he is open to the possibility of lots of different types of game.

Even to hear a subject’s report and to classify it in one’s mind as an instance of inner speech, say, involves the deployment of categories, involves situating it in a web of knowledge. That’s what we need to do in order to think about it, and in order to know what questions to ask and where to probe. It’s the hunter seeing feathers (even though he wasn’t assuming he would

find birds) and knowing how to use his gun. I've noticed that you're pretty consistent in your interviewing about trying to distinguish (passive) inner hearing from (active) inner speaking (H&S Box 6.5, p. 137). That's your background knowledge at work, directing your probing, probably with good cause and rightfully, getting at something possibly important in a way that most of us wouldn't have, as a result of long experience with open-minded DES interviewing; but if you're wrong about this distinction – if it's just an artifact and inner speech and inner hearing are really the same thing, only reported differently – then your interview and conclusions will be fouled up as a result. That's the upside and downside of background assumptions. We can't think without assumptions; but assumptions carry risk.

The recommendation “bracket all presuppositions” thus, I think, has at best a heuristic value, like the yoga teacher's instruction to “reach up to touch the stars.” Maybe, given that most of us are hunched over with toxic background assumptions, it helps move us in a good direction, but you neither can touch the stars nor would want to do so if you could.

### RUSS

Eric, we agree about much. In particular, we agree that “The core problem... is that often what consciousness studies takes for granted *doesn't merit* being taken for granted,” and that is hugely important. But we disagree about how science should proceed from there, and that disagreement has, I fear, serious consequences. I say “presuppositions”; you say “background assumptions.” I say “bracket presuppositions”; you say “hold presuppositions lightly.” I say “bracket all presuppositions that arise”; you say “bracket one or a few presuppositions.” I spend much time trying to develop a method that aids in the bracketing of presuppositions and trying to develop my own skill (and that of others) in applying that method; you do not see it as necessary to invest substantially in skill building before interviewing subjects. I'm willing to be somewhat casual about whether “all that arise” means “*absolutely all* that arise” or just the first few hundred; you think that determining whether “all” is meant ontologically or heuristically is of consequence.

It is not the words themselves that matter to me, it is their ramifications. I would be happy to say, for example, “Fine! Go ahead and call it ‘holding presuppositions lightly!’” except that I think those words encourage consciousness studies to remain stuck in the unwarranted-taking-for-granted that we both decry. That is, I think you unintentionally *contribute* to the *continuation* of what you and I agree is its “core problem,” so I will contest your word choices.

(1) “Background assumptions” is too neutral, too free of human motivations, as discussed above.

(2) By “hold presuppositions lightly” you mean that an investigator should be “implicitly attuned to signs of trouble” and change her position if such signs occur. That is not relentless enough. For example, Baars, Archer, Vygotsky, and McWhorter would probably insist that *of course* they are attuned to signs of trouble in their theories of inner speech, and *of course* if they spotted such signs they would change their ways. *But they don't spot such signs of trouble* because it is the nature of presuppositions to blind one to such trouble spots.

A presupposition is a skill (or set of skills), a dextrous coordination of learned tasks. That skill is perhaps counterproductive or self-defeating, but it is a skill nonetheless. A presupposition is a skillfully built, elaborated, and maintained coordinated, self-amplifying system of beliefs, fears, professional advantages, anxieties, economic incentives, narcissisms, and the like, each aspect supporting and defending itself and the other aspects. Part of that skill

“hold presuppositions lightly” too wimpy

is to spot potential disconfirming evidence and, to turn away, defocus, aim attention elsewhere, whatever it takes to defuse the potential disconfirmation. An obvious example is the conservative who turns away from MSNBC and turns toward Fox News, whereas a liberal would do the opposite. But presuppositions are high skills, practiced across a lifetime, so this turning-away is usually not obvious. The skill is to turn away, defocus, aim attention elsewhere, do whatever it takes to undermine disconfirmation *when there is only a trivial hint of it*, at its first whiff, when it is a mere speck on the horizon. At the same time, one learns, with the same level of at-the-first-whiff subtlety, to spot potential confirmations when they appear and to turn toward them. Because the first whiffs, in either direction, are probably not explicitly recognized (and if they are recognized they are dismissed as trivial), the *world itself* seems full of confirmations and devoid of disconfirmations, and there is no appreciation for the highly refined (albeit self-defeating) skill that warps the view of the world.

The bracketing of presuppositions is also a skill, a personal set of coordinations that must be relentlessly sensitive and powerful enough to be able to counter the deeply rooted and taken for granted presupposition skill. It is an ongoing battle, pitching one set of coordinations against another set within the same individual. I'm pretty sure it is possible for the bracketing-skill to make progress against the presupposition-skill; I don't know whether the bracketing-skill can win once and for all (perhaps that is what is called nirvana, about which I have no personal knowledge).

"Hold presuppositions lightly" simply does not connote an activity that is energetic enough, relentless enough to penetrate the presuppositional self-containment; it does not acknowledge the difficulties presented or the courage required; it contains the implication that of-course!-I'm-already-doing-that; it implies that skill and practice is not required; it does not undermine the overconfidence that people have in their own positions. Most scientists, it seems to me, believe that they hold their presuppositions lightly, so if I were to exhort my colleagues to hold presuppositions lightly, as you suggest, I think I would be *de facto* saying to them: *Stay the course! No big deal here! Everything will be cool, just as now!*

But I don't want to communicate that. I want to say: *It's not good enough, and it is a huge deal! We have to do better! Consciousness science is full of unwarranted presuppositions, and we have persistently, continually, aggressively, fearlessly to fight to get them under control.* My attempt at conveying that is to say "bracket presuppositions." I'd be delighted if someone could suggest better words.

(3) Your "bracket one or a few presuppositions" is **problematic** for two main reasons.

bracket more than "one or a few"
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First, it is the nature of presuppositions that investigators *are blind* to which are the important presuppositions that should be bracketed.

Second, even if an investigator does know which one presupposition should be bracketed, the singling out of that one presupposition

focuses *extra* attention on precisely that region of interest, and that makes the bracketing of that one presupposition *more difficult, not easier*, than the attempt to bracket many or all presuppositions. In your left foot study, for example (Schwitzgebel, 2007; H&S Ch. 10.3, and the discussion above), you instructed the subjects in the tactile-left-foot condition that they were specifically to notice whether they were experiencing tactile sensations in their left foot, but instructed them *not* to pay any *special* attention to their left foot. Subjects so instructed reported more left-foot experience than did subjects who were instructed to report tactile experiences anywhere in their bodies (including but not limited to the left foot). There are obviously many potential explanations for why a part could be greater than the whole, but a likely one, in my

view, is that when you tell someone (a) that you'll be asking in particular about their left foot and also (b) that they are not to pay any special attention to their left foot (that is, they are to bracket any special effect of instruction (a)), instruction (a) overwhelms instruction (b).

Thus, Eric, you seem to think it would be easier to bracket one or a few presuppositions than to bracket many presuppositions, whereas I think that is easier to bracket many than one. I accept that the bracketing of many presuppositions simultaneously is a complex, virtuosic skill, but there's nothing magical or metaphysical about that—it is merely the result of honing and rehonoring a skill in many different situations.

(4) You consider my “bracket all presuppositions that arise” as “at best a heuristic..., like the yoga teacher's instruction to ‘reach up to touch the stars’,” but that is misleading. “Reach up not a heuristic and touch the stars” implies that the entire enterprise **is a pretending**—you never *actually* touch any single star. By distinct contrast, I want you *actually* to bracket one presupposition; and then while continuing to bracket that presuppositions bracket another; and then while continuing to bracket those presuppositions bracket another; and so on. There is no pretending involved; this is *not* a mere heuristic.

You list a series of things that you assume I take for granted, but I think I do *not* take such things for granted: I relentlessly probe to ensure that I understand what the subject is saying. For example, you say I presuppose “that that person has a relatively normal body-map according to which the head is not enclosed like the heart in the middle of the chest.” However, I *don't* presuppose normal body maps. For example, I sampled with “Emma,” who said that at the moment of the beep she experienced anger in her head. Relentless examination revealed that by “in her head” she actually meant a region began inside her physical head behind her forehead *but extended three or four inches into the space in front of her forehead*. Thus I discovered that the normal body map did not apply in her case, and I think I *would* similarly discover that the head was experienced to be in the chest next to the heart, if that is what was experienced. You say “the DES interviewer will not think to ask the subject if she experiences time in one dimension or two different independent dimensions.” I fully accept that I might be presuppositionally blind to the multidimensionality of time, but I *do* relentlessly press time distinctions that seem pretty close to that. Last week, for instance, “Adam” said that at the moment of the beep he was innerly seeing himself punch “Bill” in the face and was watching the shock wave ripple across the skin of Bill's face. Careful questioning revealed that the first part of this seeing (the punch) was in real time, whereas the second part of the seeing (the ripples) was in substantially slow motion. It was only because we relentlessly did *not* take the experience of time for granted that we were able to make this discovery. You say I presupposed that “Melanie was speaking English as opposed to a weird possible language that sounds just like English but in which the words all mean something else entirely.” However, I *don't* presuppose that I understand the language use; I investigate relentlessly to ensure that that I understand the language that is being spoken, and that relentless investigation is what has allowed me to discover, for example, that “thinking,” when applied to one's own experience often does not mean something cognitive (see H&S Box 4.1).

You say I merely lightly hold those presuppositions, and that when something fishy arises I investigate, but that substantially under-appreciates the relentless checking, insistent probing, redundant questioning that I undertake to expose potential fishynesses. I probe in a variety of ways so that trivial hints, first whiffs, horizon specks *might appear*, and then relentlessly turn toward, seek out, track down the experience that created (or might have created) those hints/whiffs/specks.

skills involve  
simultaneous doings:  
guitar example

Perhaps you would still say, “Even so it is impossible to bracket *all* presuppositions that arise.” But I think that betrays your lack of the appreciation for skill. Some years ago I was a pretty good (I thought) self-taught **classical guitarist** when Ricardo Cobo, the internationally acclaimed virtuoso guitarist, moved to town. Cobo was also known as an excellent teacher, so I decided to take some lessons. Cobo thought my right-hand technique was crummy: I needed to adjust my wrist so the ulnar bones were aligned; I needed to prepare each pluck by setting the fingertip on the string before initiating the pluck; I needed to follow through until my fingertips touch the palm; and so on. He thought my posture was crummy: I needed to hold the neck of the guitar lower; I needed to support my back just so; and so on. He thought my left-hand technique was crummy: I needed to see the new position *before* I moved my fingers; I needed to let the weight of my forearm do more of the work (rather than squeezing with the muscles of my fingers); and so on. So he had me slow my performances way down. I asked him which of these he wanted me to focus on, and he said “*All of them: play slow enough so you can focus on all of them.*” I replied that that was not possible—I could focus on only one or maybe a few. He said that I had to learn to control all of them simultaneously.

At first, I focused on only one at a time, but as I became more skillful, I could focus on two at a time, and as I became even more skillful I could focus on more and more at a time, and as my level of skill increased, I became able to play at faster tempos and increase my ability to focus on multiple tasks.

Perhaps you would say that I am not performing *all* these skills simultaneously, but rather am performing one new skill that has incorporated all the subskills into one organic whole. But it seems to me that by the time we get to this point, the distinction between *all as separate entities* and *all as facets of a single skill* is no longer important. Bracketing presuppositions is a skill closer to the virtuosic than to the pedestrian, acquired by relentless and long-term practice along hundreds of dimensions, always aiming at incorporating multiple dimensions in an active looking-for-and-controlling rather than a passive I’ll-do-something-about-it-if-it-arises manner

(5) You worry that I rule out prior knowledge, but I don’t rule it out, I bracket it, and those are two very different things. For example, you said in your comment about **Hill** that “it seems potentially helpful to point out to a subject that some researchers have made distinctions along these [three kinds of pain] lines (explaining in some detail if necessary), inviting the subject to employ the distinctions if she finds them useful.” If pain *arises* in the course of an interview—that is, the subject, *on her own*, describes pain—then I think it is okay, if it can be conveyed dispassionately, to point out to a subject “that some researchers have made distinctions along these lines,” and invite the subject *to see whether or not that distinction helps her describe her experience with fidelity*. By contrast, **Hill** seemed to say, Make these distinctions and *then* see if your experience can be fit (Procrusteanly or not) into *those distinctions*. That is far different from saying, Look at *your experience* and see if these distinctions help you describe *that experience*.

bracketing left-  
handedness theory in  
DES

Here’s a DES example. Aadee Mizrachi and I are exploring the inner experience of left-handed individuals (Mizrachi, 2010). There is a literature that *might* be related to the pristine experience of **left-handers**; for example, there are studies (Martin & Jones, 1999) about people’s drawings that conclude that right-handed people draw action mostly headed to the left whereas left-handed people draw action mostly headed to the right. For example, if you ask people to draw a person in profile, the right-handed person’s

drawing will more often have the nose headed to the left, whereas the left-hander's drawing will more often have the nose headed to the right. The issue here is how or whether that knowledge should be used by a DES investigator.

Yesterday's sampling of a left-hander included an experience in which left-handed "Jill" was innerly seeing one of a series of images representing the idea of all the things she can do with her left-hand (apparently the result of a discussion she had had with us earlier as part of her volunteering for the study of left-handed individuals). At the moment of the beep, Jill was innerly seeing herself brushing her hair with her left hand. She innerly saw herself and her reflection in a mirror, seeing the right side of the directly observed Jill's body from the shoulders up looking at the reflected Jill in the mirror. The center of her interest was on her left hand brushing her hair. This hand was seen in the reflected Jill, not in the unreflected Jill; Jill's unreflected head obstructed the view of her left hand.

This sample may have some significance from the prior-research-on-drawing perspective. Jill creates an inner seeing aimed at her left hand, but the way she constructs that seeing, she can't see her left hand because it is hidden by her head, which she sees from the right side, nose to the right as the literature would suggest. *Hmm. That's interesting.* It seems it would have been easier had she simply seen the left side of her head so that her left hand could be clearly seen (no mirror required); but no, Jill creates a more complex seeing that must involve two Jills. Does she do that because of a strong penchant to see action moving to the right? *Don't know. But we will make a note of it on the possibility that later sampling may reveal some regularities along this line.*

Thus the literature provides potentially interesting ways to understand this sample. But we have bracketed the way that literature will influence our research. First, we did *not* set out to validate the nose-direction-in-drawing literature. (Had we done so, we probably would have focused on drawing and missed entirely the inner seeing evidence.) As a result, the inner-seeing-to-the-right observation is even more interesting—we didn't go fishing for it. Second, we do *not* take this sample as evidence for or against the nose-direction view. Instead, it is potentially the beginning of something that might count as evidence, but also potentially merely a random occurrence that has nothing to do with the motion-to-the-right view.

The bracketing of the action-direction presupposition does *not* require that we stubbornly ignore (or, actually, that we *pretend* to ignore) everything that we know from other sources. Instead, it requires cultivating whatever skills are required to be genuinely even handed with respect to action direction, requires genuinely maintaining a level playing field with respect to action direction. The prior knowledge is *not inert*: It is only because we have the prior knowledge of the literature on handedness that we can have the interesting thoughts that we do have. And yet there's still a way of handling that prior knowledge skillfully, so that if the tempting thought precipitated by that literature is false—if the imagery experience of lefties isn't, in fact, typically right-directed—our ability to observe accurately remains uncompromised.

Eric, our conversation here about presuppositions and their bracketing has been abstract and general: we have argued for and against notions about what presuppositions are and what to do about them. But presuppositions are never abstract or general; my presuppositions are my own personal, idiosyncratic way of exaggerating, minimizing, avoiding, defending my own sensitivities. Therefore I fear our abstract/general discussion is itself a **symptom of the disease**

let's be personal

rather than a step toward the cure. We have spent hundreds of hours debating the desirability of bracketing presuppositions and approximately zero hours actually building the skills of bracketing presuppositions.

Presuppositions are stubborn and devious; people defend their presuppositions using their own highest-power defensive strategies. In your case, your highest-power strategies include skilled argumentation, so a main impediment to your bracketing of presuppositions is likely to be seemingly sincere argumentation about whether such bracketing is necessary: the more energy you spend wondering whether it is necessary to attack presuppositions, the less energy you have actually to attack presuppositions. If I'm right about that, and if you want to apprehend experience in high fidelity, you will have to scale back your faith in the power of argument, and that will take substantial courage and commitment, because that faith is central to your philosophy, your everyday being, your job security, your financial situation, your collegiality, and doubtless many other substantially important features that send roots down to your very core.

Eric, your presuppositions are your own private property, your own skills and core beliefs ganging up to protect your own core beliefs, presuppositionally irrational or not. Bracketing your presuppositions is your task (if you choose to undertake it) and yours alone. It is not given to me to know whether you should undertake such a task, how successful you might be, or to prescribe how you should go about it if you do undertake it—there are doubtless many ways of confronting presuppositions. However, I remain convinced that “If you let it, the randomness of the beep will break you, one presupposition at a time” (Hurlburt & Akhter, 2006, p. 284). If you apply your considerable skill and energy to the genuine attempt to apprehend randomly selected pristine experiences from randomly selected individuals, and as you do so you genuinely attempt neither to exaggerate nor minimize the fidelity of your apprehensions, and you do that for as long as is required, and you enlist the aid of fair-minded individuals who have presuppositions different from your own, you may be able substantially to refine your ability to apprehend pristine experience with fidelity and may become substantially more differentiated and acute in your skepticism thereabouts.

I happily accept that I may be wrong about all this – that it is *my* presuppositions, not yours, that are primarily at play here, that it is possible that I have engaged in this analytic exchange with you as *my* way of avoiding/defending *my own* irrationalities. Short of omniscience, I have no standing, no right, no ability to diagnose your presuppositions. The most I can say is that my presupposition detectors jangle, rightly or wrongly; forthrightly considered, that is a statement about *me*, not about you. That is the best that can be done: me on my side of the chasm suggesting a possibility about what might be taking place on the other side of the chasm.

Presuppositions are a challenge for consciousness science: they promote the status quo, which is problematic for a field whose status is contradictory and uncertain. I have suggested (Hurlburt, in preparation) ways that aid the bracketing of presuppositions: open-beginningness, random sampling, joint-interviewing-with-skeptics, and so on. I expect that if science grasped the importance of the bracketing presuppositions, it could develop more and better ways than I have suggested. But the genuine attempt at bracketing is arduous; you have to “be willing to see your own unbridled greed as well as the neurotic fallout that seems inevitably to follow the exposure of greed, be willing to be deconstructed (a process, which, if you want to avoid complete disorganization, requires varying periods of digestion, integration, maturation) with no guarantees about what gets reconstructed in its place and no guarantees about how long and deep the process has to go” (Hurlburt & Akhter, 2006, p. 296). In my optimistic moments, I think consciousness science can figure out how to support such efforts.

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