

Methodological Pluralism, Armchair Introspection, and DES as the Epistemic Tribunal

Russell T. Hurlburt and Eric Schwitzgebel

ERIC

Seek[ing] to minimize many of the sources of error and distortion in first-person judgments ...doesn't justify according to beeper reports a place of such high *epistemic privilege* that these should serve as a sort of tribunal, before which *present* tense judgments, and those made in response to more *targeted* questions, can be tried. ... Insufficient reasons have been offered to think other reports are overall inferior to [beeper reports]. Nor is it even clear the court Hurlburt convenes would yield the harsh verdicts he suggests, were it furnished with appropriate rules of evidence. (**Siewert**, ref ***)

I heartily encourage a pluralism of method. Therefore I agree with **Charles Siewert**¹ that Descriptive Experience Sampling (DES) does not deserve a uniquely high position (see H&S, ch. 10.1). Let a thousand flowers bloom, then let those flowers fight it out in vitriolic journal articles. Russ has nicely articulated some of the advantages of DES (see esp. H&S, Ch. 2), but

weaknesses of DES

DES, as he acknowledges, is also flawed and limited in various ways. Among the **weaknesses of DES**, it seems to me, are:

- in its inability to examine questions other than those that arise naturally in the DES interview (see also **Engelbert and Carruthers, Horgan and Timmons**);
- in the unsystematic incomparability of subjects' responses (see also **Klinger**);
- in its dependence on the interviewer's possession of unusual skills – including an ability to ask even-handed questions, an ability to know what direction to steer inquiry, and an ability accurately to interpret the subject's perhaps infelicitous statements in real time (see also **Horgan and Timmons, Siewert**);
- in its labor-intensiveness, which severely limits the feasible number of subjects (see also **Klinger, Spener**);
- in its lack of transparency (except when full transcripts of the entire series of interviews are provided);
- in the difficulty of manipulating the context and content of the target experience;
- in its high level of dependence on memory (see also **Klinger, Siewert, Sutton**);
- in the difficulty of correlating reported experience with other simultaneous measures of cognition, behavior, or physiology (see also **Engelbert and Carruthers**);
- in its reliance on what aspects of experience the subject happens to attend to after the beep – which, if experience is rich, may involve a high degree of idiosyncratic selection (see also **Hill, Petitmengin, Siewert**);
- in the potential disruptiveness of the beep itself (see also **Kane, Petitmengin**);

¹“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.

- in its dependence on the categories and classifications attractive to the subject, which may be laden with problematic assumptions or map poorly onto the target experiences or onto interesting aspects of the target experience (see also **Hill, Horgan and Timmons**);
- in its creation of an interview situation with a particular array of pressures on the subject – including time pressures, pressures to satisfy the interviewer’s apparent demands, pressures to look like a good subject who reports accurately, and pressures to seek out phenomena that appear to evoke interesting discussion (see also **Klinger**);
- in the problems that follow from the interviewer’s dual role as both introspective report solicitor and introspective report evaluator – for example, the pressure to be collaborative and supportive as a solicitor may interfere with being sufficiently critical as an evaluator, and the evaluator and solicitor will share the same quirks and possibly toxic background assumptions.

To be clear, I mean these bullet-points as a list of weaknesses or limitations of DES *in addition to* the intrinsic difficulties of the introspective task common to all introspective methods (difficulties like the complexity and evasiveness of experience, our lack of practice in assessing our experience, and the outward-object orientation of our linguistic categories; see H&S, Ch. 3.3). Also, as I have said elsewhere (H&S, Chs. 3.4 and 10.1), I think every competing method

necessity of
methodological
pluralism in
consciousness studies

also has a serious array of weaknesses – though their weaknesses may differ from the weaknesses of DES. This situation compels consciousness studies to employ **a variety of competing methods**, with complementary strengths and weaknesses, *even though those methods do have the weaknesses Russ attributes to them*. Among the legitimate methods are, I think, “armchair” methods of the sort

Siewert favors. Ideally, we should seek a triangulation of flawed methods, the results of which all point toward a single interpretation, while we recognize the competing advantages and disadvantages of different approaches. (On some major issues, however – like the rich/thin issue, as I argue in Chapter 6 of Schwitzgebel in press – intermediate-term convergence might be beyond our reach. See also **Little or No**.)

RUSS

I accept your characterization of methodological pluralism, Eric: “recogniz[ing] the competing advantages and disadvantages of different approaches,” so long as by “recognizing” you imply action coherent with that recognition. That is, I do *not* think it is okay to *recognize* the disadvantages of method *X* but then to *act as if* the disadvantages don’t exist; I do *not* think it is okay to recognize that the advantages of method *X* outweigh the advantages of method *Y* but then to weight the results of *X* and *Y* equally. That understood, I see myself as an enthusiastic methodological pluralist, and I think I have earned my bona fides in that claim. Eric, we agree that the exploration of experience is difficult and has a highly problematic history. My work has always been about trying to figure out the advantages and disadvantages of available explorational methods and then trying to act accordingly. Early on, I concluded that it was advantageous to explore experience contemporaneously in natural environments, so in 1973 I invented the random beepers (Hurlburt, 1976) that made that possible and in 1974 launched the

Russ’s early
questionnaire methods

method I called “random sampling of cognitions” or “thought sampling.” In 1974 I recognized the advantages to **structured**

questionnaires in which all subjects receive the same prompts, and I acted accordingly: I instructed thought sampling subjects to fill out Likert-scale questionnaires when randomly signaled in their natural environments.

But in debriefing my thought-sampling subjects, I discovered that subjects had widely different interpretations of seemingly simple questionnaire prompts (e.g., “To what extent was this thought about the past?”) and how they used the Likert scales to quantify those responses. Eventually I was forced to accept that I simply didn’t know what subject *A* meant by checking 4 on Likert scale *X*, except that I was pretty sure that at least sometimes, what subject *A* meant was quite likely much *different* from what subject *B* meant by checking 4 on Likert scale *X*. That seemed a pretty major disadvantage, and I tried to act accordingly: I started being more and more careful in the training of subjects and in the debriefing interviews.

As I did so, I discovered that subjects often couldn’t remember the details of samples that had occurred several days earlier; that seemed a disadvantage, so I started scheduling a *series* of debriefing interviews rather than just one, which turned out to be an advantage—subjects seemed much better able to remember within hours than within days. Now that I was performing serial debriefing interviews, I found that a subject on the first day of sampling might report inner speech, but on the subsequent five days of sampling, her reports included *no* inner speech. And similarly for imagery, and so on. Did I scare her out of reporting inner speech? That didn’t seem likely—I found inner speech frequently on other subjects’ first, middle, and last sampling days. That inconsistency at first seemed like a disadvantage, but eventually I became neutral about it: it’s just the way sampling is: early in sampling, presuppositions about experience frequently outweigh the introspection of experience (see **Presuppositions and Background Assumptions**), and no amount of pre-sampling training, no matter how carefully I tried to administer it, could deter such presuppositions. This was the beginning of my recognition of the advantage, if not the necessity, of iteration; see **Clarifications of DES** and Hurlburt (2009).

Thus the development of DES was, in my view, the straightforward application of genuine methodological pluralism: I have conducted lots of different kinds of research about inner experience, evaluated the advantages and disadvantages of each, and then tried to do better.

DES not the ultimate tribunal

Therefore it is backwards to say that I think that DES is the **ultimate tribunal** against which other methods should be judged. There is no tribunal; there are only the genuinely methodologically pluralistic judgments about advantages and disadvantages. DES is a *defendant* before that methodologically plural tribunal, as should be thought sampling, armchair introspection, **Claire Petitmengin**’s explicitation interview, **Eric Klinger**’s idiothetic experience sampling, and all other methods of exploring experience. So rather than DES *being* the tribunal, DES was instead *created by* the tribunal: DES was my response to considering the advantages and disadvantages I encountered while struggling with the tribunal throughout a succession of different methods for exploring inner experience.

I turn now to armchair introspection. I was in H&S critical of armchair introspection not because I am opposed to armchair introspection *per se*; I am happy to use armchair introspection (and do myself use it) *on the condition that it’s advantages and disadvantages are kept clearly in mind*. I intend here to criticize armchair introspection because consciousness science (as I see it) often (perhaps usually) fails to acknowledge the disadvantages of armchair introspection (or at least fails to act in accordance with those disadvantages), and as a result I think armchair introspection is a central actor in the stymied progress of consciousness science.

Siewert disagrees strongly with my comments on armchair introspection, offering the occasion for me to elaborate my views. Preliminarily I note that broadly speaking there are two different activities that might be called armchair introspection, which I will call the **serious and the casual**. By serious armchair introspection I refer to assiduous, usually repeated, highly motivated endeavors such as **Siewert** and a relatively few others (dozens? hundreds?) engage in. By casual armchair introspection I refer to the *mélange* of ad hoc, often one-shot, often relatively unmotivated, often theoretically influenced introspection that many (thousands?) engage in (including you and, occasionally, me). As an example of casual introspection, you, Eric, ask acquaintances to “form a visual image of some familiar object, such as the front of your house,” (Schwitzgebel, 2002, p. 38). For many of your subjects, this request may be the first formal introspection they have undertaken. Therefore, I think your subjects’ introspections deserve to be called casual, by comparison to **Siewert’s** repeated introspective efforts. Clearly there are gradations of seriousness and casualness, but I think nothing hinges on the details of this division (that is, in close cases it matters little whether introspection *X* is held to be serious or casual, because, as we shall see, many of the disadvantages apply to both ends of the spectrum and everywhere in between. But it seems a mistake to lump **Siewert’s** introspections and those of your acquaintances into the same bucket without at least noticing the distinction.

serious vs. casual armchair introspection

Here’s the plan: First I will meet **Siewert’s** objections; then I will discuss the limitations of armchair introspection; and then I will return to give an example of how the advantages and disadvantages of armchair introspection are often not adequately recognized by science.

When **Siewert** defends armchair introspection, I presume he is referring to “serious” introspection—that is, I don’t think he intends to defend introspectors who make pronouncements based on a quick glance at their experience. At the outset, **Siewert** objects to the label “armchair introspection” because it sounds pejorative. As an alternative, he seems to propose “self-initiated present-tense first-person targeted judgments,” which he intends to contrast with DES, which he labels as “near-term retrospective judgments in response to an open-ended prompt” (***) ref). However, I think these labels are misleading in two ways. First, in drawing a contrast between his own “targeted” approach and the DES “open-ended” approach, **Siewert** misleadingly suggests that DES is not targeted. Second, **Siewert’s** labels misleadingly suggest that his own method is less retrospective than is DES.

First, DES is targeted in its way. From the beginning, it targets pristine experience (see **Clarifications of DES**), specifically, relentlessly training the subject to focus on pristine experience and to avoid non-pristine-experience reports. It is true that DES starts out, on the first sampling day, broadly, even chaotically, open-beginninged, so that neither interviewer nor subject knows in advance what particular characteristics of pristine experience will be discussed; for example, before sampling with Melanie we had not a clue that we would be discussing bodily self-consciousness. However, as the iterative process takes its effect across sampling days, the interviews can become, in a manner of speaking, as specifically targeted as are **Siewert’s** “first-person targeted judgments.” For example, in H&S, Melanie, Eric and I all became specifically motivated to sort through Melanie’s putative bodily self-consciousness. Similarly, the **Michael J. Kane** interviews became more and more targeted at the question of the existence of inner

a priori targeting

speech (see **Little or No**). Thus the distinction is not that one method is targeted and the other is not; it is in the nature of the targeting: **a**

priori specifically self-targeted for **Siewert** and aspects-of-pristine-experience-emergently-brought-into-relief for DES.

It seems to me that the overwhelming majority of Western scientific methods (excepting a very few such as DES, ethology, and the participant-observation methods of cultural anthropology) involve a priori specific self-targeting, so it is worth repeating why that is risky. As discussed in our dialogue in **Presuppositions and Background Assumptions**, a priori targeting involves forcing the subject into a preconceived frame, and that risk applies whether that subject is oneself, as in **Siewert's** method, or another person as in Eric's rich-thin study and the approaches suggested by **Christopher S. Hill, Terry Horgan and Mark Timmons, Mark Englebert and Peter Carruthers, Petitmengin, and Klinger**. Now if we could know with a high degree of certainty what frame would best capture what is going on in people's experience, setting the frame in advance would be an efficient approach. But we don't yet know. Recall the parable of the hunters in **Presuppositions and Background Assumptions**: Going into the unknown woods, it is better not to presuppose what prey you will find; rather, keep alert for any possibility that comes your way.

Second, **Siewert's** holding that his method is "present-tense" whereas DES is "retrospective" is undercut by the iterative nature of DES. I fully agree that Melanie's apprehension, *on the first day*, of her bodily self-consciousness was indeed distantly retrospective (hours later), as **Siewert** states. But by the second day and beyond, because of the iterative procedure (see **Clarifications of DES**), her bodily self-consciousness was something Melanie was prepared to assess immediately after the beep. Her judgment was no longer a *long-term* retrospection but rather a short-term retrospection. And *all* introspections are at least **slightly retrospective**, including **Siewert's** introspections, because at best, all ask, What was going on with me *just then*? So both DES judgments, once the iterative process has taken effect, and present-tense judgments are near-term, almost immediate retrospections.

all methods retrospective

Thus, **Siewert's** distinction between his method as "self-initiated present-tense first-person targeted judgments" and DES as "near-term retrospective judgments in response to an open-ended prompt" is misleading: Both methods are short-term retrospective and both are targeted. So here's my shot at a non-pejorative label for **Siewert's** first-person (formerly known as armchair) introspections: "judgments about experience where the target, the occasion, the duration, the introspection, the interpretation, and the generalization are all self-defined, self-initiated, and performed by one person, generally on the basis of an implicit or explicit theory." For short, let's refer to these as "self-targeted, self-occasioned, theory-informed introspections."

Here's my shot at a non-pejorative label for DES: "characterization of experience based on apprehensions of moments of a subject's experience where: (a) what is apprehended is the result of an open-beginninged and iteratively evolving co-researcher dialogue between a subject and an interviewer; (b) the moments are selected and unambiguously identified by an external signal that is unpredictable by either subject or interviewer; (c) where the focus is limited to the subject's directly-apprehended-as-ongoing-at-the-moment-of-the-signal experience; (d) where the characterizations are based on truly inductive generalizations of the specifically apprehended moments; and (e) where the investigator attempts in some systematic way to bracket his/her own presuppositions and to help the subject bracket his/hers." For short, let's refer to these as "open-beginninged, randomly initiated, presupposition-bracketed introspections."

ERIC

February 26, 2013

I am more sympathetic with **Siewert**'s characterization of targeting and retrospection than you are, Russ. "Targeted" means targeted in advance, by the researcher's antecedent plan. As you emphasize, that is a very different approach than your own "open-beginninged" approach; and there are corresponding advantages and disadvantages. Likewise, in asserting that all methods are retrospective you underplay the differences, as I see it, between concurrent and immediately retrospective methods, which again have corresponding advantages and disadvantages.

Both here and in **Presuppositions and Background Assumptions** you are too hard on a priori targeting and preconceived frames. A researcher might be drawn into an inquiry by interest in a targeted question, like how rich is visual experience? (**Siewert**) or do different dimensions of pain often come apart? (**Hill**) or is there normally an experience of freedom? (**Horgan and Timmons**). Although you are right that a priori targeting can blind us to the unexpected, and that antecedently chosen frames and focuses can create potentially distortive pressures on subjects, if we always refuse to focus inquiry beforehand **we lose at least two things** (in addition, perhaps, to researchers' enthusiasm): First, we lose the opportunity to explore issues that are theoretically important but that don't tend to arise naturally in ordinary sampling interviews. Perhaps such issues will arise in *unusual* sampling interviews, but then we learn about them only from those unusual interviews and not in the normal case. **Horgan and Timmons**'s proposal about exploring whether people normally experience a feeling of freedom might be an example (though see **Case Study in Bracketing Presuppositions** for an objection to this example). Second, we lose the opportunity to systematically explore issues across subjects using comparable vocabulary and comparable prompts, rather than just whatever vocabulary the subject finds comfortable and whatever variations the prompt questions take in the DES interview. Although I suspect we might have overlapping criticisms of **Klinger**, Russ, there are advantages to structured questionnaires in which all subjects receive the same prompts – as you of course recognized in your early research. You came to think these advantages were outweighed by competing disadvantages, but others might assess the weights differently, and the ideal, it seems to me, is to see whether these competing approaches converge.

I disagree with you, Russ, that all methods are retrospective. One can, for example, think "what am I thinking right now?" and discover, presumably, that one is thinking about what one is thinking (perhaps among other things). Or one can reflect on one's currently ongoing emotional experience (e.g., "am I feeling tense now, or relaxed?"). There are important epistemic differences between introspection of experience as it is ongoing and introspection of experience in the immediate past (e.g., "what *was* I just thinking, a moment ago?"). As many researchers have noted (going back at least to Comte, 1830), immediate retrospection has one very important advantage over concurrent introspection: Since the target experience is over before one starts to reflect on it, the target experience cannot be interfered with by act of reflecting on it. Thus, in DES, *if* the subject can adequately focus on her experience just before the beep and not confuse it with her experience as affected by the beep, she will avoid the refrigerator light problem and other nuisances (e.g., H&S, pp. 17 and 90-91). On the other hand, however, concurrent introspection has **two important advantages** over immediate retrospection. First, immediate retrospection requires memory, and it is certainly possible that even within a second much will be forgotten, especially if experience is rich (see also my discussion in **Little or No**). And second – as recently emphasized by Jakob Hohwy (in

advantages of a priori targeting

advantages of concurrent introspection

press) – in concurrent introspection one can manipulate the target experience in a way that might help reveal its features. For example, in thinking about whether one’s experience is an experience of thirst, one can imagine drinking a glass of water and notice whether and how it affects that supposed feeling of thirst. One can notice how one’s concurrently ongoing emotional state shifts with various shifts in cognitive and bodily attention. Such active exploration is crucial to sensory knowledge and may also be crucial to introspective self-knowledge. **Siewert**, too, seems to utilize the exploratory, manipulative possibilities of concurrent introspection, for example when he invites the reader to consider the changes in her experience as she shifts her angle of view on a coin (Siewert, 2006).

RUSS

I accept that there are important differences between **Siewert**’s targeting in advance and my own “open-beginninged” targeting, and that there are corresponding advantages and disadvantages. I’m happy to agree that the methodologically plural investigator can tick off *Can manipulate the* two more advantages of self-self introspection *target* in the Advantages column for self-targeted, self-occasioned, theory-informed introspection. Furthermore, I would **add to that Advantages column** the *Ability to plan the investigation in advance* and *Ability to focus on one specifically targeted aspect*. However, as I explained in **Presuppositions and Background Assumptions** and below, targeting in advance *increases the difficulty of bracketing presuppositions*, and that counts in the Disadvantage column.

If consciousness science were having an open, honest, level-playing-field, spirited, methodologically pluralistic discussion of the advantages and disadvantages of targeting introspections, I wouldn’t feel the need to advocate open-beginninged! I don’t think that open-beginninged is *always* the best, and I apologize if I imply that. But the current consciousness-science conversation seems to me to be Target in advance! Target in advance!! TARGET IN ADVANCE!!!, and it’s difficult to say, even-temperedly above the din, *Y’know, open-beginninged might be better in some or many situations*.

And I accept that there are differences between the immediate retrospection of DES and the concurrent introspection emphasized by **Siewert**, but I think you exaggerate when you say concurrent introspection is “not hostage” to retrospection. Even concurrent introspection involves some retrospection, across the delay between the concurrent introspection and the writing notes about it.

So I fully accept that the genuinely methodologically plural investigator must understand the advantages and disadvantages of any introspective method. I turn now to discuss five limitations that affect all self-targeted, self-occasioned, theory-informed introspection: pristine, presuppositions, parochial, public, and skill. But even here, I don’t really wish to argue that DES is better under all conditions. I wish to support a genuine methodological pluralism. I’m cast in the role of articulating the disadvantages of self-targeted, self-occasioned, theory-informed introspections not because I relish the role of critic but because consciousness science is untenably mostly silent thereabouts.

self-self introspection does not apprehend pristine experience

1. Serious (self-targeted, self-occasioned, theory-informed) or casual introspection does **not apprehend pristine experience** (experience as it naturally occurs in usual, everyday environments, not altered or colored or shaped by the specific intention to

apprehend it; see **Clarifications of DES**). Self-targeted, self-occasioned, theory-informed introspection begins with the specific intention to apprehend experience; thus self-targeted, self-occasioned, theory-informed introspection specifically *excludes* the investigation of pristine experience. There are two problematic aspects of the failure to investigate pristine experience: the interference aspect and the representative aspect.

First, interference. As you point out, Eric, at least as early as Comte (1830) it has been known that people's behavior may change dramatically when they realize they are being observed. In **Clarifications of DES**, I observed that people's behavior changes dramatically when they realize they are on TV; by analogy, people's inner experience can be expected to change when they know they are being observed, even by themselves.

It is possible to *act as if* you were not on TV; but carefully considered, that behavior is substantially different from behavior that takes place when not on TV. Experienced TV personalities doubtless can "forget" that they are on TV and act pretty naturally, but that is analogous to forgetting to introspect. I accept that there are some aspects of experience that are largely unchanged by the intention to introspect, and self-targeted, self-occasioned, theory-informed introspected experience and pristine experience will be largely the same in those aspects. But what those aspects are is not known and should not be presumed without being shown. Furthermore, I accept the possibility that some highly skilled introspectors may be able to transcend the self-observational interference and be-as-observed exactly the same as be-without-observation (for example, some adept meditators claim to be able to do that), but (a) that non-interference would have to be demonstrated in some way, not merely claimed; and (b) the experience of people who can consistently non-interfere may well be different in important ways (as is meditators') from everyday folks.

Second, representativeness. If we can solve the interference problem, I note that what one *can* do, when (self-) asked to introspect, is not necessarily what one *does* do in everyday experience. I *can* juggle; I *do* juggle only about once a year, if that. An investigation into my juggling ability would reveal almost nothing about my important characteristics. By analogy, it is quite possible that person *X* could produce an image when demanded to do so by an investigator (including a self-investigator), but that doesn't necessarily imply that *X* frequently or ever produces images in pristine experience.

Furthermore, what one *tries to* do, when (self-) asked to introspect, does not necessarily have the same characteristics as what one *does* do in everyday experience. An image created on demand (including self-demand) may or may not resemble an image created pristinely. Let's compare a typical targeted introspection of inner seeing with a haphazardly chosen (and typical) DES apprehension of pristine inner seeing, and see whether it seems reasonable to believe that the two are the same phenomenon. As a typical targeted example of introspection, let's use one of yours, Eric: You instruct an acquaintance (let's call her "Erica"), "Reflect...on your own phenomenology as you form and maintain a visual image. Form a visual image of some familiar object, such as the front of your house" (Schwitzgebel, 2002, p. 38). When you ask questions about the details of such an image, Erica, like most of your subjects (Schwitzgebel, 2002), stumbles and becomes uncertain.

Now the DES example. As a haphazardly chosen pristine inner seeing, I simply selected the most recent inner seeing example from my own DES interviews; that happened to be "Matthew's" first sample from his eighth sampling day (see Raymond, in preparation):

Sample 8.1 Matthew is driving home from class but has little or no awareness of the driving or the traffic. At the moment of the beep he innerly sees a recreation of a video that he and his political science classmates had watched earlier; he sees the words “GLOBALIZATION IS GOOD” printed in block white letters below a long-haired guy with hair blowing in the wind—a glamour-shot kind of scene. He had seen what he took to be this same scene a few hours earlier on the TV screen in his political science class, where the professor had led a spirited discussion about one-sided advertising using this video as an example. Matthew had taken an active, passionate role in criticizing the use of such glamour-based-scenes to unfairly influence important non-glamour-based topics such as globalization. Now, at the moment of the beep, he sees just the glamour guy and the words, with most of his attention aimed at the words (that is, he does not see the TV screen, the classroom, etc.). At the same time he is experiencing dislike for this one-sided video, a mental dislike that seems to be a feeling more than a thought, but it is difficult to be sure.

Erica stumbles in uncertainty whereas Matthew describes with substantial detail and confidence. I think there is a huge difference between what Erica is doing and what Matthew is doing. Erica is responding *to you*, Eric; *you* are likely to be at least as important in Erica’s experience as the task you set for her. Erica may not have had an image at all but felt pressured into describing one to please you. Even if we grant that Erica *did* innerly see the front of her house, we should note that Erica doesn’t really care about the front-of-house seeing—she’s just doing some task to please you, Eric. If you had asked her to stand on her left foot with her finger in her ear, she would have done that, too, *with the same amount of self-directed enthusiasm and personal, self-directed, organismic commitment*, which is to say, nearly none.

By distinct contrast, if we grant that Matthew was innerly seeing a glamour-guy and the words “GLOBALIZATION IS GOOD,” that inner seeing *is the most important experiential reality in the world* for Matthew at that moment. Matthew is *not* compelled, instructed, cajoled, encouraged to think about glamour-based advertising at that time: he could have been watching the traffic, feeling the itch in his left calf, wondering what to get his girlfriend for her birthday next week, recalling his high school graduation. But, apparently, *none* of those things and *nothing else in the universe* is as experientially relevant as glamour-based advertising to Matthew at that moment. Furthermore, even granting that Matthew was *thinking* about glamour-based advertising, that thinking does not have to involve the *seeing* of anything—he could repeat in inner speech what he had said in the debate, could think in unsymbolized thinking about it, and so on. For whatever reason, *inner seeing* was, out of all the ways he could have been experiencing, the most experientially felicitous at that moment. Thus out of all the possible things Matthew could experience, and out of all the possible ways he could experience it, Matthew created just exactly this particular *inner seeing*, created it exactly the way he himself was inclined to create it, created just exactly that by himself, for himself, without outside intervention (Hurlburt, in preparation).

Does Erica’s created-by-Erica-for-Eric inner seeing (the result of *Eric’s* interest, not *Erica’s*) have the same characteristics as Matthew’s created-by-Matthew-for-Matthew inner seeing (the result of *Matthew’s own* most-relevant-at-that-time interest)? Maybe, but it certainly doesn’t seem that that should be presumed without examination.

I conclude that self-targeted, self-occasioned, theory-informed introspection cannot investigate pristine experience. I can’t see how self-targeted, self-occasioned, theory-informed

introspection can avoid that. Because self-targeted, self-occasioned, theory-informed introspection dominates, current consciousness science is an exploration of experience at its *least* pristine. This limitation seems to apply equally to serious self-targeted, self-occasioned, theory-informed introspection or casual introspection.

2. Self-targeted, self-occasioned, theory-informed introspection may amplify the **toxic role of presuppositions** (see **Presuppositions and Background Assumptions**) for at least five reasons: First, because only one

self-self introspection may amplify toxic presuppositions

person occupies the observer role in the introspective process, there is no possibility for between-observer correctives; no opportunity to compare the details of an observation; no possibility for one

observer's hypersensitivities to balance another person's avoidances. Second, because the observer is the same person as the subject, there is no possibility for the observer to help the subject discover or describe something that the subject is insensitive to. Whatever the subject overlooks (and of course fails to notice – or if noticed, forgives), the same-person interviewer will overlook in exquisitely unnoticed or forgiven synchrony. Whatever the subject exaggerates (and of course fails to notice – or if noticed, forgives – his own exaggeration) the same-person observer will exaggerate in exquisitely unnoticed or forgiven synchrony. Third, because the observer selects the theory to be explored, the observer is likely to have some attachment to that theory, so it will be difficult to take a dispassionate stance toward that theory (and the same-person subject will have the same attachment). Fourth, because the person who chooses the occasion to observe is the same person who is attached to the theory, occasions may be selected (knowingly or otherwise) that particularly favor the theory without recognizing that those occasions may be peculiar or rare, and without observing occasions that run counter to the theory. Fifth, because the theoretician chooses the duration of the observation, there may be a tendency to shorten or lengthen the observation in favor of the theory. Taken together, one might say that self-targeted, self-occasioned, theory-informed introspections are ripe for confirmation bias.

In all these cases, there is no outside person who can, because of different sensitivities or blindnesses, serve as a corrective influence to the introspector's presuppositions. Most modern guilds recognize the risks of the failure to separate such roles. Modern society doesn't let the prosecutor advise the defendant, the builder be the building inspector, the auctioneer bid on the goods, the home team pay the referee. An exception to that rule is the current financial system, which has let the brokers pay the rating agencies with disastrous results.

In distinct contrast to self-targeted, self-occasioned, theory-informed introspections, the open-beginninged, randomly initiated, presupposition-bracketed introspections of DES are expressly designed to *weaken* the grip of presuppositions. That the interviewer is a different person from the subject means that there can be no exquisite synchrony between the presuppositions of both. (Certainly one person's presuppositions can overwhelm the other's, but that is less insidious.) DES can be (and usually is) performed by two interviewers, allowing the hypersensitivities and blindness of one to temper the other. The separation of interviewer and subject facilitates the clarification and exploration of phenomena that the subject takes for granted or exaggerates – there is no exquisite coordination. A truly open-beginninged investigation allows the theory to emerge if it applies, rather than Procrusteanly to guide the observation. The randomness of the occasions ensures that the theory does not select peculiar or rare opportunities to observe. The focus on the moment of the beep helps focus the interview on actually occurring events rather than favored proclivities or assumptions.

The difficulty of bracketing presuppositions applies both to serious self-targeted, self-occasioned, theory-informed introspection and to casual introspection.

3. Self-targeted, self-occasioned, theory-informed introspection is parochial, by which I

self-self introspection parochial

mean it has difficulty **considering alternatives beyond its own noticings**. There are three time frames that parochialism presents a problem for self-targeted, self-occasioned, theory-informed introspection: pre-introspection, during the introspection, and post

introspection.

Pre-introspection: Because the individual self-targeted, self-occasioned, theory-informed introspector has only one arena in which to make observations, it may not be obvious what kinds of observations are really the most salient. For example, Doucette and I (Doucette & Hurlburt, 1993), and Jones-Forrester and I (Hurlburt & Jones-Forrester, in press) have used DES to explore the inner experience of women with bulimia nervosa. We have discovered that all these women have fragmentedly multiple inner experience, with as many as ten or twenty simultaneously ongoing things in experience. This is quite unusual in non-bulimics; of the 17 bulimic women sampled in Hurlburt & Jones-Forrester (in press), the woman with the *lowest* frequency of multiple awareness had *eight times* as frequent multiple awareness as the average participant in Heavey and Hurlburt's (2008) normative sample; fragmented multiplicity isn't a needle in the haystack, it is the hay in the haystack. There are about 5000 articles in the bulimia literature; many of them rely to some degree on introspective reports of experience because experience is implicated as a causative factor in most of the leading theories of bulimia. *There is no mention in that literature of fragmented multiplicity.* There are potentially many explanations for this oversight (including that I and my colleagues have been consistently mistaken), but the one that appeals to me is that bulimic women take their multiplicity for granted; to the extent that if they think about it at all, they presume that everyone's experience is multiple, so it wouldn't occur to them to mention it (Hurlburt & Jones-Forrester, in press).

It is very difficult, if not impossible, for a self-targeted, self-occasioned, theory-informed introspector to overcome that everyone-is-like-me bias (in fact, most self-targeted, self-occasioned, theory-informed introspectors seem to elevate that bias to a virtue by claiming universality for their own characteristics). By contrast, when the role of investigator is played by a different person from the role of subject, the difficulty diminishes dramatically if not evaporates completely. It is relatively easy for a DES investigator, who has the luxury of investigating the experience of a wide variety of individuals, to spot the differences between those people who are thinking one thing at a time and those who are thinking ten.

During the introspection: Because of the fundamental privacy of experience, it is highly unlikely that an individual person will have an adequate perspective on how his own experience compares to that of others. Here's a recent example from a DES subject's seventh sampling day. "Walter" is an experienced DES subject, without doubt motivated to be as forthcoming and accurate as he can. Earlier that day he had had a disagreement with a coworker. At the moment of the beep Walter is driving home, fuming. He is innerly screaming in his own, angrily inflected inner voice a dozen or more simultaneous (or perhaps rapid-fire sequential, the experience is so chaotic that it's difficult or impossible to determine) comments/questions: "How could she!?!?" "What's she trying to do!?!?" "What a bitch!!!" and the like. His hands are gripping the steering wheel like a vise; a wave of heat rises up his back and into his neck. We asked him how angry he was, on a scale from 0 = *no anger* to 10 = *extremely angry*; he said about a 7.

Now if *I* had an experience like that, it would be about a 14 on a 10-point scale—I don't scream innerly, I don't death-grip steering wheels, and so on. *At best*, Walter's rating of a 7 should be considered ipsative—more angry *than Walter is* when he rates himself a 4, less angry *than Walter is* when he rates himself a 10. There is *no* justification for believing that Walter's rating of 7 has any comparative across-subjects significance. I use the numerical ratings as an example, but it is not the numbers that are important. There simply is no reason to believe that Walter has a good comparative understanding of how his own experience stacks up with other people's.

Post-introspection: Even if an individual investigator manages successfully to avoid the limitations of non-pristine experience, the difficulty of bracketing presuppositions, and the potential blindness caused by observing only one kind of experience, there is still the problem of generalization of the results. The best self-targeted, self-occasioned, theory-informed introspections are still of only one person, and so can provide no guidance on the issue of whether individual differences exist in important ways. I accept that there may well be universal features of consciousness, and for those features the description of one person's consciousness applies to all. But the universality of any feature of consciousness is entirely at issue at this stage in the progress of consciousness science. Referring to the examples discussed in **Presuppositions and Background Assumptions**, it may well be that McWhorter does indeed see images of words every time he speaks, but that in no way implies that *everyone* does such a thing, his own insistence to the contrary notwithstanding. It may well be that Baars and Archer talk to themselves in inner speech all the time, but that does not make it the universal feature of consciousness that they claim. Self-targeted, self-occasioned, theory-informed introspection may lead to mistaken confidence that one is observing universal features.

An important corollary to the generalization problem is that as the skill of an introspector increases, the representativeness of the experience may decrease. An extreme was mentioned above: We might take an adept meditator as an example of an extremely skilled introspector; she has reached a state where she can observe her experience without interfering with it. If motivated, she could perhaps produce high fidelity introspective descriptions. But those descriptions have only limited (albeit important) representativeness—they may apply only to adept meditators.

It seems reasonable to suppose that self-targeted, self-occasioned, theory-informed introspection is a skill, which, like other skills, requires practice. Someone who undertakes to be a very good introspector might invest thousands of hours into the introspection practice. It is likely, or at least possible, that such an investment would affect the generalizability of the results.

By contrast, the acquisition of the skill of a DES investigator does *not* have this negative feedback, because the roles of investigator and subject are separated. The DES investigator can easily invest thousands of hours in skill acquisition; the subject's iterative skill acquisition is important but is typically on the order of a few hours.

The limitations of parochialism applies both to serious self-targeted, self-occasioned, theory-informed introspection and casual introspection.

4. It is difficult to provide a **public inspection** of the self-targeted, self-occasioned, theory-informed introspection process. In your list of bullet points above, Eric, you criticize DES for “in its lack of transparency (except when full transcripts of the entire series of interviews are provided).” Presumably you have in mind that in DES, unlike in standardized questionnaire studies, readers don't normally get to see the exact

self-self introspection difficult to make public
--

questions posed and the exact answers given. Such transparency is difficult but *not impossible* for DES. I *have* provided many verbatim transcripts (including in H&S); I have invited a noted skeptic to participate in the process and then discussed every detail of what happened with him (what could be more transparent than that?); nearly all of my DES interviews involve two (sometimes three) interviewers, who ask clarifying questions of and for each other during the interview, and then jointly view videotapes of the interviews; and so on. None of that is perfect public inspection, of course, but I fail to see how self-targeted, self-occasioned, theory-informed introspection can undertake *any* such safeguards. The self-targeted, self-occasioned, theory-informed introspector *might* be able to tell us the exact question he posed to himself (even that is highly problematic, because the self-presented question might have specific and idiosyncratic meanings that are exquisitely known by the both the investigator and the same-person-subject but by no-one else). And it is very difficult if not impossible for the self-targeted, self-occasioned, theory-informed introspector to make public any aspect of the introspection itself other than the final description of a result. A self-targeted, self-occasioned, theory-informed introspector could engage in something like thinking-aloud, a transcript of which could be made public (with all the attendant limitations of think-aloud methods); or perhaps *X* could introspect, and *Y* could introspect, and then *X* and *Y* could compare results (but that is ripe for the dangers of presuppositions and is probably not “transparent” in the sense you mean).

5. Self-targeted, self-occasioned, theory-informed introspection inhibits its own skill acquisition. If it is accepted that introspection is a skill, then like all skills introspection needs to be developed, improved, elaborated. Whereas self-targeted, self-occasioned, theory-informed introspection can certainly be practiced, and probably that practice will afford some

self-self introspection inhibits skill acquisition
--

improvement, self-targeted, self-occasioned, theory-informed introspection **cannot provide optimal opportunity for development** for at least five reasons. First, all self-targeted, self-occasioned, theory-informed introspection practice always takes place on the same turf – the introspector’s own experience. Second, there is no opportunity to correct the self-targeted, self-occasioned, theory-informed introspector’s relative weaknesses. Third, there is no opportunity to observe other, potentially superior examples of introspectors at work. Skill-building basketball players watch other players so that they can thereafter emulate and practice new moves. Fourth, there is little opportunity for instruction or coaching. Skill acquisition is not easy because much skill development takes place in one’s own areas of weakness, which are likely to exist in one’s own blind spots. Everyone accepts that if I were a violinist trying to acquire the violin-playing skill, I would consult a teacher and ask the teacher to point out my weaknesses and provide exercises designed to repair those weaknesses. Those exercises are likely to be unpleasant—if the teacher is correct about my weakness, the exercises will focus me directly at that part of my ability that is the *worst*, which is likely that part of my ability that in the past I have consistently *avoided* trying to improve. To the extent that I have ego involvement, I will therefore resist any attempt to improve—practice makes me seem worse to myself than I’d like to think I am. A good teacher, therefore, provides support and encouragement. Fifth, it is difficult to refine the ability to apprehend and describe what is experienced by comparing and contrasting it with what someone else experiences. For example, the ability to apprehend inner seeings in high fidelity benefits greatly by the opportunity to ask the same kinds of questions to those who do not innerly see at all, to those whose inner seeings are sketchy, to those whose inner seeings are florid, to those who claim to be innerly seeing but

are not, and so on. At best, the self-targeted, self-occasioned, theory-informed introspection can compare self to others, a more difficult task than comparing one other to another other.

All self-targeted, self-occasioned, theory-informed or casual introspectors should ask themselves: What have I done to acquire this skill? What effort have I made to repair my own weaknesses and blind spots? What systematic efforts have I undertaken (the analog of a violinist's scale and arpeggio practice)? How do my efforts at skill acquisition compare to, say, that of a virtuoso violinist?

The difficulty of skill acquisition applies both to serious self-targeted, self-occasioned, theory-informed introspection and to casual introspection, for different reasons. Casual introspection is presumed not to require skill, so skill *building* is not the problem—the problem is the lack of skill.

The five limitations I have just discussed (pristine, presuppositions, parochial, public, and skill) apply (perhaps not entirely equally), it seems to me, to all serious self-targeted, self-occasioned, theory-informed introspection and to casual introspection. I accept the possibility that there are ways that skillful individual self-targeted, self-occasioned, theory-informed introspectors can reduce or overcome some of these limitations in particular situations. However, I note that these are major issues at the center of the introspective task, and that such reduction or overcoming is difficult. Furthermore, most (perhaps *overwhelmingly* most) introspections that are invoked in the science of consciousness are *not* skillful self-targeted, self-occasioned, theory-informed introspections, but are casual, undisciplined, off-the-cuff introspections; consciousness science relies on them anyway, to its detriment.

Eric, we agree on the desirability of methodological pluralism as you describe it: recognizing and acting on the competing advantages and disadvantages of different approaches.

Russ not categorically opposed to self-self introspection

I see myself as being **methodologically plural in this sense**. I acknowledge, for example, that much of the science of perception rests on self-initiated, self-targeted, theory-informed introspections later confirmed by experimentation; the ability of self-initiated, self-targeted, theory-informed introspection systematically to vary perceptual stimuli was clearly an efficient way of advancing the science of perception. But that strategy hasn't worked well with the science of consciousness, which has relied heavily on casual and self-initiated, self-targeted, theory-informed introspection and yet remains, as you said in H&S (p. 298) “a pandemonium of theories with little common ground... not yet a mature or progressing science.” You appear to think, Eric, (as do **Spener** and **Siewert**) that despite its shortcomings we can continue to rely, to a large extent, on self-initiated, self-targeted, theory-informed introspection, as long as it is checked with corroborating measures; I believe we should put more energy into trying to develop new and better paths (DES is my attempt, but there may well be other and better ones) to explore the phenomena of consciousness, limiting self-initiated, self-targeted, theory-informed introspection to those areas where it is best suited.

References

- Comte, A. (1830). *Cours de philosophie positive, vol. 1*. Paris: Bachelier.
- Doucette, S. & Hurlburt, R. T. (1993). Inner experience in bulimia. In R. T. Hurlburt *Sampling Inner Experience in Disturbed Affect*. New York, NY: Plenum Press: 153-163.
- Engelbert, M., & Carruthers, P. (this symposium). Descriptive Experience Sampling: What is it good for?. *Journal of Consciousness Studies*.
- Heavey, C. L., & Hurlburt, R. T. (2008). The phenomena of inner experience. *Consciousness and Cognition, 17*, 798-810.
- Hill, C. (this symposium). How to study introspection. *Journal of Consciousness Studies*.
- Hohwy, J. (in press). Phenomenal variability and introspective reliability. *Mind and Language*.
- Siewert, C. (2006). Is the appearance of shape Protean? *Psyche, 12* (3).
- Horgan, T., & Timmons, M. (this symposium). Introspection and the phenomenology of free will: Problems and prospects. *Journal of Consciousness Studies*.
- Hurlburt, R. T. (in preparation). *Investigating pristine inner experience: Moments of truth*.
- Hurlburt, R. T. (this symposium). Nine clarifications of Descriptive Experience Sampling. *Journal of Consciousness Studies*.
- Hurlburt, R. T. (2009). Iteratively apprehending pristine experience. *Journal of Consciousness Studies, 16* (10-12), 156-188.
- Hurlburt, R. T. (1976). Random interval generators and method of behavior modification using same. US Patent #3,986,136.
- Hurlburt, R. T., & Jones-Forrester, S. (in press). Fragmented experience in bulimia nervosa. In Hurlburt, R. T., *Investigating pristine inner experience: Moments of truth*. New York: Cambridge. Ch. 2.
- Hurlburt, R. T., & Schwitzgebel, E. (2007). *Describing inner experience?* Cambridge, MA: MIT Press.
- Hurlburt, R. T., & Schwitzgebel, E. (this symposium). Little or no experience outside of attention? *Journal of Consciousness Studies*.
- Hurlburt, R. T., & Schwitzgebel, E. (this symposium). Presuppositions and background assumptions. *Journal of Consciousness Studies*.

- Kane, M. (this symposium). Describing, debating, and discovering inner experience. *Journal of Consciousness Studies*.
- Klinger, E. (this symposium). Response organization of mental imagery, evaluation of Descriptive Experience Sampling, and alternatives. *Journal of Consciousness Studies*.
- Petitmengin, C. (this symposium). Describing the experience of describing? *Journal of Consciousness Studies*.
- Raymond, R. (in preparation). Inner experience in PTSD.
- Schwitzgebel, E. (2002). How well do we know our own conscious experience? The case of visual imagery. *Journal of Consciousness Studies*, 9 (5-6), 35-53.
- Schwitzgebel, E. (in press). *Perplexities of consciousness*. Cambridge, MA: MIT Press.
- Siewert, C. (this symposium). Socratic introspection and the abundance of experience. *Journal of Consciousness Studies*.
- Spener, M. (this symposium). Using first-person data about consciousness. *Journal of Consciousness Studies*.
- Sutton, J. (this symposium). Time, experience, and Descriptive Experience Sampling. *Journal of Consciousness Studies*.