John Sutton

Time, Experience, and Descriptive Experience Sampling

This rich book, the best I've read in consciousness studies, offers more at each encounter. It was a brilliant idea to evaluate Hurlburt's Descriptive Experience Sampling (DES) method through concrete sceptical enquiry by Schwitzgebel, whose role as open-minded but hard-nosed interlocutor makes the debate an intriguing, even gripping read. The radically different views about introspective reports held by the two authors (hereafter Russ and Eric, following the book's informality) are put to the test in the concrete context of 'an examination, in unprecedented detail, of random moments of one person's experience' (p. 11). In addition to the ongoing central pursuit of the general question 'Can we believe people's reports about their inner experience?', a raft of more specific issues (from the speed of an 'inner voice', through theories of emotion, to the indeterminacy of images) are addressed as they arise in the sampling interviews. The book's excellent organization, using in-text boxes linked by detailed crossreferencing into indexed threads, reinforces the thrilling sense that our access to the inner life of one person, 'Melanie', is bringing real progress on a number of fronts at once. Eric's robust scepticism remains, but is tempered somewhat by being forced to confront the real constraints and opportunities of gathering information from a live subject. By the end of the project, he accepts that Russ's 'beep-andinterview methods' deserve a central role in introspective science (p.

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250), and that from the interviews 'we do have at least *some* tentative sense of Melanie's experience and how it might differ from the experiences of others' (p. 296). In this commentary, rather than again going over the central points of difference between Russ and Eric, or rehearsing my own Schwitzgebelean scepticisms, I focus on a central set of issues, about time and the dynamics of experience, on which I'd like to see DES liberalized or opened up. Being now wholly convinced about the general utility of the method as one among others, and ready to deal with my methodological worries by trying DES myself, the concerns I raise here are rather about its exclusive use and its exclusive focus on the 'flash snapshot' of 'the millisecond before the beep began' (p. 22).

Much work on mind and action in both philosophy and psychology remains at some distance from concrete experience. Many philosophers trade or (now) collect intuitions, discuss what experience is like *in general*, or worry about how it can possibly emerge in or from the brain: many psychologists take student subjects out of their natural habitats into odd little rooms to test their responses to highly controlled stimuli. Russ's complaint that graduates are just not taught 'how to observe people accurately' (p. 258) is spot on. Although he doesn't here consider traditions of participation observation in social sciences like anthropology, I suspect that he's equally unhappy with the typical rush to symbolic, narrative, or ideological interpretation of complex social practices and interactions. Too many discussions of the *habitus* or of cultural norms remain at a level of abstraction from the experience-near description of practices and activities, thinking and feeling in particular contexts.

So DES is refreshing just because it aims (fallibly but honestly) at catching concrete, structured experience in the wild. Its idealizations lie, in the main, in its hopes about the fidelity of trained access to its phenomena, rather than in any artificial limitation to toy versions of reality (save for the one shortcoming to which I come in a moment): as when cognitive ethologists watch animals interacting in the wild, the risks are less about curtailing ordinary behaviour than about misinterpreting it or missing some of its internal complexity. There should still be a complementary place for intervention and manipulation: by tweaking particular elements in an interconnected panoply, we then hope to move step-by-step back to the phenomena to see how the organization of those elements grounds and shapes the processes of interest. Despite his pluralist protestations, Russ hasn't sought much to integrate DES with alternatives, to seek the objective corroborating evidence he says he wants, or to build multi-stranded convergent

research methods: though I hope this book changes things, DES perhaps as yet remains too isolated, more a 'hairy' or jazz science than the genuinely mixed 'Marsalis-like' programme that Russ officially advocates (p. 259). One promising line of integration should be with the kind of experimental ethnography developed in cognitive and linguistic anthropology by students of multimodal interaction like Charles Goodwin (2000) and Ed Hutchins (2006), whose microstudies of short communicative sequences (of three girls in a hopscotch game, or a frigate's navigation crew) span gesture, tool- or technology-use, eye gaze, posture, and so on as well as verbal interaction (see also Enfield and Levinson, 2006). Both Russ and Eric may respond that DES is studying ordinary individual conscious experience, not more extended cognitive processes, or communication, or social interaction, or expert skills, or collaborative problem-solving. I think it would be wrong to push this too hard, because we want to maintain attention to the many links between consciousness and cognition. Real individual conscious experience is sometimes also part of, and embedded in, such extended activities: the exclusivity of consciousness-purism, as we might call it, should be resisted, and we should join the difficult task of integrating DES into a battery of related research tools.

I pursue this point here by pushing on one particular, striking problem with the subject-matter of DES. Russ takes it that his target concrete, structured experience in the wild — is a momentary phenomenon. The method deliberately sets out to eradicate any dynamic features of experience by providing 'a flash snapshot', discarding anything other than 'the last undisturbed moment before the beep'. By asking both subjects and interviewers 'to focus on one moment', DES encourages a kind of Humean temporal atomism in which we study only 'a precise moment, perhaps measured to a fraction of a second' (pp. 21-23). But on the face of it, ordinary conscious experience is temporally extended and continuous, even though of course — as Eric often points out — it is more gappy and fleeting than most things in the external world. Russ and Eric have added a brief discussion of how DES loses access to 'the dynamics of experience' (Box 4.10, p. 76), but it fails to quell this concern. Russ says there that flow or dynamics can't be captured because trying to do so would lose the desirable, neutral randomness of DES: he complains that a series of instants would be selected only 'because they seem to cohere with the flow', and that thus departing from the moment of the beep would leave us 'shrouded in the murk of presuppositional self-theory'. This is a false dichotomy. As Russ acknowledges (more when in the midst of the hard interviewing work than when reflecting broadly on the

virtues of DES), access to pristine or unsullied single moments of experience is anyway imperfect and fallible: and there's no reason to believe (at least before trying) that attempts at careful extensions of DES to address both slightly longer experiential sequences and the broader temporal interanimation of distinct moments must inevitably be swamped by the chaff of confabulatory self-characterizations and faux generalizations. Many desirable features of DES could be retained while being (fallibly) applied to more extended experiential phenomena. Certain things might be lost, such as (perhaps) access to the multiple simultaneity of distinct components of experience at a time (Hurlburt and Heavey, 2004, p. 121): I'm not suggesting that the focus on single moments should be forever dropped, only that after 30 years some DES work could fruitfully stretch to sequences as well as snapshots. To justify this suggestion, I first discuss Russ's definite lack of interest in the dynamics of experience, and then point to a range of experiential phenomena of interest to Russ and Eric which to my mind require attention to temporal contexts.

Russ quotes William James complaining that introspective analysis often leaves us having caught 'some substantive thing... statically taken, and with its function, tendency, and particular meaning... quite evaporated' (p. 17; Hurlburt and Heavey, 2006, p. 51). He sees James as worried here about our disturbance of experience, and thinks DES answers this concern by using open-ended methods and privileging description over attempted explanation: but he does not respond here to the direct challenge about rendering experience static. However, he discusses the issue elsewhere as a potential criticism of DES, in a passage worth quoting in full:

Criticism 3: Inner experience is a stream, but the beeper approach makes it appear like a series of moments. It is certainly true that most reports of DES subjects make it appear that experience is saltatory, more like a series of beads on a string than a continuous stream. Whether that is an artefact of the method or whether that is the way experience is needs further clarification. It is certainly possible that for some, perhaps most people, awareness jumps from one experience to the next with little or nothing in between. It is also possible that DES is by its nature unable to observe the actual stream-like characteristics of awareness. Further investigation is necessary here. (Hurlburt and Heavey, 2004, p. 123)

To my knowledge, this further investigation has not yet been undertaken. Yet since DES is intended to be theory-neutral, and to allow for dramatic individual differences, it should *investigate* the nature of temporal experience, rather than assuming or enforcing the view that

the form and content of experience can be spelled out 'simply by looking at what is the case at an isolated instant' (Hoerl, 1998, p. 156): perhaps experience (sometimes, or for some subjects) 'can comprise a sequence of events' rather than a precise single moment (ibid.; on temporal experience see also Le Poidevin, 2004). Russ and Eric engage in productive discussions about the visuospatial content of Melanie's experience, in which Russ rightly insists that subjects may differ substantially and surprisingly: so we should likewise allow subjects to report a range of possibilities with regard to the temporal content of their experience, their experiences of duration, temporal passage, and succession, and with regard to the many ways in which their present experience may be coloured or animated by recent or more distant past experience. It's true that memory demands, and thus sources of potential error, increase as we seek (or even simply permit) reports of more extended sequences of experience: but subjects will gradually improve with training in describing slightly longer stretches before the beep, just as they do in describing the immediate moment before.

Further, DES is intended to illuminate the nature of experience in certain psychopathologies. But some pathologies (such as certain forms of trauma) involve particular experiential sequences, with particular thoughts or images tending to bring other particular images or feelings. Others involve odder ways of inhabiting time, such as an overabundance or a scarcity of mental time travel. DES could in principle contribute powerfully to our understanding of such temporal pathologies: but its present form rules this out by banning attention to experiential flow and to the mnemonic (or future-oriented) periphery and reference of present experience.

It is as if Russ sees no middle ground between the 'flash snapshot' and the full-scale, problematic causal narrative. But we can reasonably explore such a middle ground even while agreeing with him that many interpretations (both self-interpretations and those offered in clinical contexts) do go awry, when attempts to *explain* experience, or locate its hidden sources and mechanisms, become schema-driven confabulations. This is why Russ resists his subjects' initial expectation that a DES interviewer 'would want a mini-story about each beep and maybe even an explanation', as Sarah Akhter put it in her sampling journal (Akhter and Hurlburt, 2006, p. 136): she was surprised when 'Dr. Hurlburt's questions didn't probe the story or context' of the experience (p. 144). Russ's comment is telling:

I do usually avoid the story aspect of a person's report. I regard stories as being at least partially, and usually largely, a public mask, as practiced

attempts at explaining part of one's world while simultaneously hiding other parts... I find story accounts nearly always to be unsatisfying — I can never figure out which part is real, which part is misleading, which part is public, which part is personal. By contrast, I think sampled experiences are largely true and only in minor ways the result of public masking... for the most part, sampled experiences are far more satisfying to me than are the accompanying stories. I therefore listen to the experiences and avoid the stories. (Akhter and Hurlburt, 2006, p. 145)

This passionately felt preference for the true pristine moments of experience over misleading narratives also influences the particular way Russ seeks to combine personal truth with general theory, and idiographic with nomothetic science. The idiographic conclusions about a particular individual like Melanie which DES permits are indeed drawn from her concrete experiences: she attends to the sensory aspects of her environment, she has detailed visual images, she has a range of feelings which are often not directly experienced, she rarely experiences inner speech, and she is unusually self-analytical. These DES observations are 'truly personal', and allow 'Melanie to emerge as Melanie really is' (p. 259): only on the basis of many such personal truths can we then identify similarities and differences across people (Hurlburt and Heavey, 2006, p. 249). But from another point of view the kind of 'personal truth' revealed in these '17 moments of Melanie's existence' is strangely thin. Because these 'very short moments, as close to instants as possible' (Heavey and Hurlburt, 2008, p. 805) have their histories and contexts stripped from them, Melanie herself is here history-less. This is of course deliberate — as Russ says, 'our major aim was *not* to find out something about Melanie as a particular individual' (p. 257). This seems appropriately modest given the nature of DES. But for many people, what matters about experience is not only its synchronic form, but also the way it arises out of, is coloured by, and goes on to shape both individual and shared history. We are, arguably, creatures with a particular kind of past, that is experienced in signature ways: many of our activities and experiences (both solo and shared) are more revealing, more significant, or more fun just because they incorporate that past in various ways and have consequences for the future.

Russ's alternative synchronic and 'saltatory' vision of personal experience is reminiscent of Galen Strawson's (2004) 'Episodics', who do not (as compared to 'Diachronics') see their present experiences as intrinsically connected to their past (or their future). Like Strawson, Russ is hostile to the narrative and form-finding tendencies to which some Diachronics are prone: he would I think agree with

Strawson's assessment that 'the aspiration to explicit Narrative self-articulation... almost always does more harm than good... [and] is, in general, a gross hindrance to self-understanding: to a just, general, practically real sense, implicit or explicit, of one's nature' (Strawson, 2004, p. 447). My point here is not to argue against Russ or Strawson, but rather to reiterate that space must be found not only for distinctive forms of momentary experience, but also for distinctive forms of experience in time: for Narratives and Diachronics as well as for Episodics.

Russ is, I think, acknowledging the limitations of a history-free approach to 'personal truth' when he reminds us that 'Melanie herself, really, means little to the reader' (p. 257). But this is in some tension with other claims for DES as a route to personal truths. He suggests that DES can open up those subjects and investigators who 'give themselves over to communicating fearlessly about all aspects of experience' to potentially 'foundation-shattering' discoveries and 'a substantial amount of personal deconstruction/reconstruction' (Hurlburt and Akhter, 2006, pp. 295–299). This is the domination of the subject's diachronic or historical sense by the newly-discovered peculiarities of momentary experience revealed in DES. It is as if Russ expects DES subjects — at least those willing to take 'an elevator into the crypts of inner experience' (Hurlburt and Akhter, 2006, p. 296) — to revise their embedded, interpersonally-grounded self-understanding in light of a batch of flash snapshots, and to let 17 episodes trump an accumulated life. I agree with Russ that 'our culture has encouraged people to be sloppy in their observation of and claims about inner experience' (p. 62), but I deny that only momentary inner experience deserves careful observation.

But perhaps I'm way overemphasizing Russ's episodic purism here. There's one point in the book at which he seems significantly — and in my view correctly — to relax it: I can use this point to underline my suggestion that temporal interanimations are ordinary, not intrinsically distorting, and should be welcomed and studied rather than dismissed. Russ and Eric have a number of acute exchanges about whether Melanie is making novel inferences during the interviews to fill out putative details of her before-the-beep experience. On one occasion, he divides the DES interview's 'discovery of Melanie's experience' into three components: Melanie's experience before the beep, 'Melanie's incorrect reconstruction during the interview', and 'our own presuppositionally mistaken overlay over Melanie's reports'. Much of the book concerns the attempt to keep the third, experimenter-induced intrusions and interpretations at bay. Here Russ

makes the striking concession that, beyond that, the relative mix between Melanie's original experience and (for example) her 'newly (re)created image in place of an original image' is 'not terribly important', because this combination 'is still uniquely Melanie' (Box 7.6, p. 151). Russ is here admitting legitimate temporal-experiential interanimations between the time of the beep and the time of the interview.

I stress this for two reasons. Firstly, both Russ and Eric (like most of us who accept the pervasive and persuasive evidence for the constructive nature of remembering) tend wrongly sometimes simply to equate construction with distortion. But influence is not inevitably error, nor is memory's malleability inevitably also unreliability (Campbell, 2004; Barnier, Sutton, Harris and Wilson, 2008). Veridical remembering too is the result of the same mechanisms and processes: no matter how much trained subjects use a 'sampling intention' to try to fix and insulate their event-specific knowledge, insulating their memory of the moment before the beep by some combination of inner techniques and supporting external notes, even their successful descriptions of inner experience are compilations. As Eric has noted, '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 an act of "pure" remembering could be isolated' (Schwitzgebel, 2009). But this means that the distinction between 'recalling and reconstructing' (p. 151) on which much discussion in the book hinges is just not sharp, and that even true DES descriptions of before-the-beep experiences may legitimately draw on an uneven array of resources. This means that 'flash snapshot' purism should be resisted, even if it is a useful training motif or 'instructional nudge' (Sutton, 2007) to help subjects gradually discriminate among better and worse sources for the compilation.

Secondly, the availability and legitimacy of this kind of temporal interanimation — between pre-beep and interview — can alert us to the ubiquity of other ways in which history animates experience in dynamical systems like the embodied person at different levels and timescales (Sutton, 2009). We can take two distinctive examples from Melanie's reports. The case which gave rise to the discussion just mentioned was one in which Melanie claimed that (just before beep 4.1) alongside (or as part of) a strong desire or craving to go scuba diving, she was also experiencing a kind of bodily twisting or yearning which took the form of a sense of her body leaning or reaching forward. Eric was initially sceptical about this, because he thought that, despite her protestations, Melanie was probably now recreating the

experience (at the time of the interview) and reporting on her present sensations. This is the mixing or co-presence of times I've already addressed, between beep and interview. But in this case Eric comes in retrospect to relent on his scepticism: on reflection, he realizes that 'a strong yearning might sometimes be accompanied by something like a feeling of forward impetus, or a readiness to move forward — perhaps as a kind of broadly distributed motor imagery of moving forward' (p. 147). This seems entirely plausible: what I want to note is that accepting Melanie's report on such grounds is to introduce and legitimize the animating presence within her experience of a whole history of activity. Melanie has this motor imagery because of her substantial past experience of diving: it is, in part, a form of embodied memory, combining skill-related and kinaesthetic aspects of procedural memory in a kind of experienced bodily tension 'like there's something inside me trying to reach out for something... in a forward direction' (p. 143). Although at the time of the beep this was only imagery, Melanie is nonetheless experiencing what Elizabeth Behnke (1997) calls a 'ghost gesture', a schematic inner vector or tendency towards movement that persists even without the larger, visible implied movements. Much of our kinaesthetic experience, at the level of micromovements as well as kinaesthetic imagery, exists as this kind of bodily sedimentation of the effective presence of past experience, often shrunken but still traceable to larger routines and bodily practices. Behnke's phenomenology of kinaesthetic micromovements, whether inadvertent or reclaimed, exhibits just the precise taste for concrete experience which Russ requires, but rightly admits both melodic stretches of experience and the larger frame of embodied history in order better to describe and understand the nature of specific corporeal-experiential sequences. The temporal interanimations animating Melanie's motor imagery are between the whole history of her scuba-diving experience and the moment of the beep, and will, I suggest, be best understood by a framework which explicitly acknowledges such complex relationships between past and present experience.

Moving from the traceless influence of embodied memory to the explicit way in which past experiences are available in personal or autobiographical remembering, we can briefly examine a different case of temporal interanimation. This is a relation between a single and *specific* past event and the moment before the beep (as well as, again, the time of the interview). Just before beep 1.3, Melanie was experiencing a mental image of a shed in the country which she had visited just once, remembering it 'as if you've opened the front door and you're standing just inside' (p. 82). Much of the discussion

between Melanie, Russ, and Eric about this report concerns the surprising visual clarity of her entire image, and the surprising amount of visual detail which Melanie describes in the interior of her imaged shed (such as the relative length of the sleeves of a rumpled jacket hanging on a hook on the wall to her left): on this point, Russ reminds us that this is Melanie's first sampling day. I want to pick up on a different issue, because this is the only report in which Melanie's prebeep experience was a case of autobiographical remembering. Russ expertly helps her try to distinguish between what she was seeing at the moment of the beep and what she is seeing 'as we're talking about it now' (p. 86). But neither he nor Melanie manages so successfully to distinguish between what she was seeing at the precise pre-beep moment and the surrounding, temporally-related elements of her memory: nor should they do so, save for the violation of the official 'flash snapshot' rules of DES. At first Melanie describes her pre-beep image of the shed in DES-friendly terms as 'a snapshot memory of the first time that I saw the shed, or the inside of it', with 'nothing moving'. But this static snapshot is immediately permeated by motion and time, by the real history of her past experience, which bleeds through again now into the present of the interview (p. 85):

Melanie: No, but it's still. There's nothing moving. It's a snapshot in that it's one moment out of time.

Russ: Okay.

Melanie: And I only stood there for a couple of seconds and then someone came up next to me and I walked inside and everything like that.

Because she's getting the hang of the DES ideology of the instant, Melanie does then snap back to 'just that first moment when the door was opened': but in the two passages quoted, we see that her experience is porous, as she is suddenly talking about the actual experienced past rather than the pre-beep image. We don't know whether this bleeding through — the very medium of mundane remembering — also occurred in the conversation she was having about the shed with her boyfriend at the time of the beep, or whether the beep and accompanying sampling intention cut that off. But there's no reason this interanimation or layering of moments shouldn't be explicitly thematized.

There are many other issues to which the preceding discussion relates tangentially that deserve more space. I'm particularly pleased and intrigued by the analogy between the idea that describing inner experience is a sophisticated skill, only gradually acquired, and David Foulkes' (1999) work on children's dreaming as a cognitive achievement (p. 274). Again, I'd like to see more urgent attempts to identify ways to gather external corroboration of DES reports: recordings and other tests which offer converging access to the same phenomena will be easier to calibrate if our targets are more extended sequences of experience rather than isolated instants. Finally, experience sampling should be reconnected to research on motor skill and expertise: performers with long histories of high-level practice do sometimes confabulate just as wildly as the rest of us about their experience, but on other occasions they can reflect on extraordinary kinaesthetic experience, or on precise decision-making under severe stress or time pressure, in rich and surprising language 'beyond the easy flow of everyday speech' (Sheets-Johnstone, 2005, p. 217). I hope that many philosophers and cognitive scientists alike might look forward to confronting these challenges, and all kinds of unexpected hard-butordinary scientific problems, in the course of trying to forge a robust and slightly extended experience-sampling practice.

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