

Penultimate Version

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Descriptive Experience Sampling

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Descriptive Experience Sampling (DES) is a method of investigating human inner experience (thoughts, feelings, sensations, perceptions, etc.) by collecting beeper-cued random samples of lived experience in participants’ natural environments. Created by Russell Hurlburt in the late 1970s, DES was developed in response to the ongoing tension between the need for a high-fidelity method of exploring inner experience and the valid criticisms leveled against prior attempts at introspection (including mistakes due to retrospection, disagreements about what is introspected, and the prevalence of social desirability effects). DES seeks to discover the phenomena of inner experience as they are experienced by each participant with sufficiently detailed accuracy and fidelity to support a science of inner experience.

DES asks a participant to wear a random beeper in his or her natural environments. The randomly occurring beep cues the participant to pay attention to whatever experience (or experiences) happens to be ongoing at the moment of the beep and immediately to jot down in a notebook (or otherwise record) the features of that experience (or experiences). Within 24 hours after collecting a number (typically 6) of

such samples, the participant meets with the DES investigator for an “expositional interview” designed to help the participant provide faithful descriptions of the sampled experiences. In essence, the expositional interviewer asks the participant one and only one question, albeit repeatedly and in many different forms: “What was ongoing in your inner experience at the moment of the beep?” After the expositional interview, the investigator prepares a written description of the ongoing inner experience at each sampled moment. The sample/interview/describe procedure is repeated over a series of (typically 4-8) sampling days until a sufficient number (typically 25-50) of moments have been collected. The investigator then surveys all of that participant’s moments and extracts their salient characteristics, producing an idiographic characterization of that particular participant’s experiences.

Some DES studies investigate a collection of participants who have some external feature (psychiatric diagnosis, for example) in common. In those studies, the investigator produces an idiographic characterization of each participant as described above and then examines all those characterizations to discover whatever salient characteristics might emerge across the particular collection of participants. This allows the investigator to discover any features of inner experience that members of that specific population might share and thus to produce an across-participant nomothetic characterization of their in-common inner experiences.

Thus the aim of DES is to produce high fidelity descriptions of inner experience. DES investigations have found that most people have a somewhat mistaken, perhaps substantially mistaken, understanding of the characteristics of their own inner experiences. These mistakes can be the result of presuppositions, self-schemas, heuristics

such as availability or representativeness, and so on. Overcoming those mistakes requires the bracketing of presuppositions about what will or will not be found in experience, both by the participant and by the investigator. This bracketing is facilitated by (a) selecting random moments to be examined (thus avoiding presuming to know what kinds of experience are or are not important); (b) focusing on specific occurrences (and actively discouraging general statements, inferences, and assumptions about causation that may reflect self-characterization); (c) minimizing retrospection (thus reducing self-concept-driven distortions of memory); (d) asking, during the expositional interview, open-beginning questions (requesting the description of whatever happened to be ongoing at the moment of the beep, thus avoiding presuming that some particular feature of experience is important); (e) iterating the method by sampling/interviewing/describing over several days (thus allowing successively improving approximations to the fidelity of the phenomena being apprehended); and (f) valuing a bottom-up way of building the understanding of experience, starting with carefully described naturally occurring moments of individual experience, and out of a mosaic of such experiences building a true generalization about experience.

DES is similar to protocol analysis in that both aim to externalize aspects of inner experience. DES differs from protocol analysis in that (1) protocol analysis is typically aimed at thoughts, whereas DES considers all forms of experience; (2) protocol analysis is typically aimed at understanding the cognitive processes involved in executing some particular task, whereas DES seeks to describe freely occurring experience; and (3) protocol analysis asks participants to think aloud while continuing to perform the task, whereas DES interrupts (beeps) whatever is ongoing and asks for a report of the inner

experience that was ongoing just before the interruption. Protocol analysis assumes that thinking aloud reflects the important ongoing cognitive processes; by contrast, DES believes that experience is often substantially richer than can be captured by concurrent thinking-aloud. For example, DES frequently discovers visual imagery and also discovers multiple simultaneous processes, both of which are too complex to be adequately characterized by concurrent think-aloud methods

DES is similar to other sampling methods such as the Experience Sampling Method, Ecological Momentary Assessment, and thought sampling in that all use some form of beeper or other signaling device to aim at ecological validity, sampling in the participant’s own natural environments rather than in special (e.g., laboratory) situations. DES differs from the other sampling methods in that those methods are primarily quantitative, asking participants to respond to a series of predefined items usually presented as Likert scales, whereas DES is qualitative and descriptive.

DES is similar to classical introspection in that both aim at describing very brief moments of experience. However, classical introspection aimed at discovering basic elements of consciousness as revealed in the reports given by participants as they perform specific tasks set by the investigator, whereas DES aims at describing the salient features of experience as participants engage in their everyday activities.

The salient features that emerge from DES studies (both within-participant idiographic and across-participant nomothetic) are often features of the *form* or pattern of *how* experience occurs within individuals. For example, salient form characteristics frequently involve inner speech, visual images, unsymbolized (unworded, unimaged)

thinking, sensory awareness, or feelings. *Content* features or the pattern of *what* is being experienced can also emerge as salient characteristics, but they are less common.

Applications

Hurlburt and his colleagues have used DES to characterize the inner experience of individuals with psychiatric diagnoses such as schizophrenia (Hurlburt, 1990), depression, anxiety, bulimia, and borderline personality (Hurlburt, 1993). For example, Hurlburt, Happe', and Frith (1994) found that patients with Asperger syndrome (high functioning autism) had only visual images in their experience if they had any inner experience at all. That offers a plausible explanation for the frequent observation that patients with Asperger syndrome have a difficult time taking another person's point of view (it is extremely difficult, if not impossible, to represent another's point of view using only visual imagery) and suggests that the usual explanation for that deficit (that individuals with Asperger syndrome have no theory of mind) is incorrect.

Schwitzgebel (2007) used a variant of DES to explore the issue of whether consciousness is rich or thin. There are always many modalities available to experience (visual, auditory, tactile, olfactory, imagistic, proprioceptive, emotional). The rich view maintains that consciousness holds a wide variety of those modalities simultaneously in experience; the thin view maintains that only one or a few modalities are experienced simultaneously. Schwitzgebel used DES modified by including the additional instruction that participants were to note whether, at the moment of the beep, they were conscious of visual experience, of visual experience in the far right visual field, of tactile experience, and/or of tactile experience of the left foot. His tentative conclusion was that conscious

experience is moderately rich: consciousness contains more than a few modalities but not all modalities. Hurlburt and Schwitzgebel (2007) discussed whether Schwitzgebel’s variant of DES undermined essential features of DES.

References

An introduction to how to do DES is found in Hurlburt, R. T., & Heavey, C. L. (2006). *Exploring Inner Experience: The Descriptive Experience Sampling Method*. Amsterdam/Philadelphia: John Benjamins. A skeptical analysis of DES is found in Hurlburt & Schwitzgebel (2007). *Exploring inner experience?* Cambridge, MA: MIT Press. Other DES books: Hurlburt, R. T. (1993). *Sampling inner experience in disturbed affect*. New York: Plenum Press; and in Hurlburt, R. T. (1990). *Sampling normal and schizophrenic inner experience*. New York: Plenum Press. Protocol analysis is discussed in Ericsson, K. A., & Simon, H. A. (1993). *Protocol Analysis: Verbal Reports as Data*. Cambridge, MA: MIT Press. Other sampling studies are reviewed in Hurlburt, R. T. (1997). Randomly sampling thinking in the natural environment. *Journal of Consulting and Clinical Psychology*, 65, 941-949. Schwitzgebel’s rich/thin study is Schwitzgebel, E. (2007). Do you have constant tactile experience of your feet in your shoes? *Journal of Consciousness Studies*, 14(3), 5-35.