

Article

# Valid Description of Experiencings & Thereby of Behaviors & Situations

Merton Krause\*

## ABSTRACT

Human consciousness consists of a flux of experiencings, some referring to one's own or to others' situations or behaviors. Scientific human Psychology's most fundamental responsibility is to describe and causally explain these three kinds of psychological events, which it can do only on the basis of persons' descriptions of their experiencings. The privacy and momentariness of experiencings prevents proof of the veridicality of descriptions of them or their referents. These descriptions can therefore qualify as scientific data only on the basis of their validity, which first depends on their conformity to the scientific definitions of the dimensions of the specific kinds of experiencings described and of the situations or behaviors these may refer to. Persons comparably trained in applying these definitions should be relied on to judge the validity of such descriptions, and only their collegially approved descriptions of psychological events can properly constitute scientific human Psychology's data base.

**Key Words:** Experiencings, behaviors, situations, qualified informants, valid descriptions.

My consciousness seems a flux of private momentary experiencings and it is the only consciousness I am privy to. Can you honestly say otherwise? Insofar as this is universally so for persons, experiencings (E) must represent to each of us all that we believe and disbelieve. At each particular moment of consciousness one's E may be a perceiving, remembering, inferring, intuiting, supposing, imagining, dream, revelation, alien seeming intrusion, emotional feeling, wanting, intending, deciding...(compare, e.g., Heavey & Hurlburt, 2008). Some of these are believed true by one, some not. Such a flux of E or stream of consciousness has long been discussed and studied by philosophers and psychologists (e.g., Klinger, 1999 & 2009; James, 1890, pp. 146-187; Natsoulas, 2004 & 2006; Pope & Singer, 1978)<sup>1</sup>, but the methodological implications for psychological research of such fluxes being the basis of all human knowledge, and so of scientific human Psychology's data base, are not yet sufficiently appreciated.

All recorded human knowledge claims and speculations about what exists must be records of some persons' descriptions of their own E. Honest descriptions of whatever for a describer (i)

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\*Correspondence: Merton Krause, Independent Researcher. E-mail: msk514@msn.com

<sup>1</sup> This flux seems to me nuanced in its pace and other qualities in accord with the then felt importance of one's past, present, and future, but such matters will not be taken up here (see, e.g., Gallagher, 1998). The notions of variability in physical duration of the momentariness of E over occasions and over persons complicates the notion of E-flux. Apparently for some people their E flux can sometimes consist of several unintegrated or distinguishable simultaneous parts (e.g., Hilgard, 1977; Hurlburt, 2011a, pp. 38-9 & 258-282), but as we shall see this necessarily must be as remembered.

has been personally experienced,  $D_i(E_i)$ , are the principal subject of this essay<sup>2</sup>. Such descriptions of one's E of one's own (i.e., i's) or of some other's (j's) behavior (B) or situation (S), will be indicated here by  $D_i(E_i(B_i \text{ or } S_i))$  and by  $D_i(E_i(B_j \text{ or } S_j))$ , respectively. Such descriptions of S or B as perceived by someone, along with the  $D_{i3}(E_{i2}(E_{i1}))$  that represent one's description as of some time 3 of one's remembering after some time interval 2 of one's experiencing of whatever sort at some time 1 are what exclusively can constitute the data base of scientific human Psychology, of SHP.

Because it is a public enterprise SHP has the social responsibility to describe and causally explain why persons live their lives as they do and so encounter the S and have the B and E that they do. Since SHP can do this only on the basis of autobiographical data, including perceivings of the S and B of others' lives, SHP's data base necessarily is exclusively autobiographical. SHP also has the social responsibility to discover how persons could better live their lives in S, B, and E terms and then to promote the long run optimization of humanity's distribution of felt quality of life (see, e.g., Diener, 2013) through the practice of the psychological crafts (e.g., parenting, teaching, supervising, psychotherapy...). SHP can properly fulfil these responsibilities only on the basis of valid  $D_i(E_i)$  and so on the basis of properly qualified informants'/field scientists' own  $D_i(E_i)$ . These can rationally be claimed to be valid only on the basis of SHP's field scientists' selection, training, and monitoring by others already themselves so selected, trained, and monitored. Thus, because of the inherent privacy of E, collegial dialogue about specific  $D_i(E_i)$  is the only possible foundation for SHP's authorizing  $D_i(E_i)$  as valid.

The preceding perspective implies the following series of topics that need to be dealt with: (1) The nature of E as private momentary events. (2) The necessity and complexity of the remembering of an E in order to describe it. (3) The state-of-consciousness of an  $E_i$  and how this relates to the validity of its description. (4) The difference between the definitional validity (i.e., truth by a form of coherence) of  $D_i(E_i)$  and their veridicality (i.e., truth by correspondence of  $D_i(E_i)$  with this  $E_i$  and with its referent if it has one. (5) The grounds for claiming that measurements on the dimensions of E, S, and B are valid and then that the descriptions of these psychological events in terms of these dimensions are valid. (6) The necessarily derivative nature of the validity of descriptions of S and B due to the logical dependence of such descriptions upon the validity of  $D_i(E_i)$ , since all  $D_i(S)$  necessarily are  $D_i(E_i(S))$  and all  $D_i(B)$  necessarily are  $D_i(E_i(B))$ . (7) The testing of  $D_i(E_i)$  validity on the basis of their credibility to the SHP community of field scientists, which is ultimately a matter of the culture of SHP.

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<sup>2</sup> This notion has in effect been employed in science methodology under the name "critical realism", due to the obvious inappropriateness of naïve realism for science because every account of what is observed obviously depends in part on the nature, situation and means of the observer rather than exclusively on the nature of the observed. SHP is essentially about the nature of human psychological events knowable only in the form of referents of the experiencings of persons studying these events.

The reliance here on the symbols E, B, S, E(E, B, S), D(E(E, B, S)), etc. and subscripts for them may take a bit of getting used to, but such symbolization is important because employing these symbols with their subscripting avoids the frequent repetition of rather long and clumsy strings of words and because it keeps salient that the meanings of these symbols and so of their verbal translations are as specified here rather than as understood elsewhere.

## 1. The Nature of Experiencings

E are referential, are of or about something, if not simply moods. Perceivings refer to something perceived, rememberings to something remembered, et cetera. So each kind of E has referents that are describable in terms of some set of gradated dimensions according to what sort of object or event the referent is. However, each E also has some set of gradated dimensions in terms of which it itself is describable according to what sort of E it is (as, e.g., Klinger and Cox, pp. 1987-88, proposed for non-perceivings; also see Tart, 2003). All communicable descriptions are dependent upon shared definitions of gradated qualities/dimensions, which for SHP's purposes properly must be SHP-normative definitions of dimensions of E, B, or S (Krause, 2012). At present SHP has many candidate dimensions but lacks demonstrably normative ones and lacks even an adequate regime for settling on consensually normative dimension definitions for psychological events. Therefore, it also lacks normatively valid measures for such.

There are dimensions in terms of which to describe each sort of referent of an E, such as those of the perceived fragrance of a flower, of the remembered fortunateness of some past encounter, of the demonstrable usefulness of a supposition or deduction, etc. There are other dimensions in terms of which to describe E themselves rather than their referents, such as the clarity of a perceiving, certainty of a remembering, plausibility of a supposing, effortfulness of an inferring, etc. To put this more concretely: a tree has some perceived height, width, numerousness of branches, leaf colors, etc. as someone sees it, while that person's perception of the tree has itself some degree of clarity, importance, novelty, etc. for that person.

It is essential that SHP endeavor to obtain valid descriptions and dependable causal explanations of E, because one's own E are all that can and do most directly matter to each and every person, given that these are all any person does and can most directly know. This makes it necessary for SHP to rely on its trained field scientists to study their own E, including those about the S and B of some sufficiently comprehensive sample of persons beyond only themselves, in order to provide SHP with a comprehensive enough sample of evidently valid  $D_i(E_i)$  about S, B, and E for its data base.

Although S and B are perhaps universally accepted in and beyond the SHP community to be causally influential on each other and on E, this is not the case for E being causally influential on B and thereby on S. Some of us consider E to be epiphenomenal and so not causally influential (see, e.g., Walter, 2009). SHP's causal influence or independent-variable portion of its data base can consist only of  $D(E(S))$  and  $D(E(B))$  if E are indeed epiphenomenal. Nevertheless, E are essential to SHP as part of the effect or dependent-variable portion of its data base and also because they are its exclusive source of information about all psychological events. Indeed, they are all that ultimately can matter to humanity, because what a person cannot in any way experience cannot matter *to* that person even if it somehow matters *for* that person.

Every  $D_i(E_i)$ , however, is necessarily a  $D_{i3}(E_{i2}(E_{i1}))$  in that it is a description (completed at time 3) of perhaps multiple rememberings (over some interval of time, 2) of the original momentary E (that occurred at time 1; see Casey, 2008, on the meaning of "momentary"). Mistaking the remembering of an E for concurrently "introspecting" it, which would require some sort of concurrent "observing" by a person of one stream of consciousness by another simultaneous

such stream of this same person (on this distinction see, e.g., Depraz, Varela, & Vermersch, 2003, pp. 115-154; Hilgard, 1977; Ryle, 1949, pp. 154-198), apparently easily happens. Moving from experiencing something (i.e., having an E event) to remembering what it was can be very rapid, so rapid that it can well seem to one that one is currently “introspecting” the E rather than somewhat later remembering it. Sometimes one feels one’s  $D_{i3}(E_{i2}(E_{i1}))$  is veridical, sometimes not. Sophisticated interviewing of one about one’s particular E may influence one’s (and the interviewer’s) notion of what was and was not the E at issue, but SHP can only rely on empathically probing expert dialogue about the nature of specific  $D_i(E_i)$  to justify their being considered valid (see Hurlburt, 2011a, pp. 152-177).

Developing any empirically grounded causal *explanations* for E, S, and B obviously depends upon first having valid *descriptions* of these events. The role of B in SHP causal explanations of subsequent E or B is mediated and moderated by the (exo- or endo-somatic) S these prior B are constituents of or causal influences on. The S in causal explanations of B or E are two very different kinds of S, exo-somatic physical-social events (e.g., Yang, Read & Miller, 2009) and endo-somatic neurophysiological events (rather than personality traits: Boag, 2011). Both provide an exclusively Physicalist (e.g., O’Connor, 1969, pp. 1-19) basis for SHP causally explanatory theory, the exclusive basis for those of us who believe E to be epiphenomenal (see, e.g., Walter, 2009). However, whether one embraces Physical Monism or mutually causally influential Mind-Body Dualism,  $D_i(E_i)$  are essential to SHP’s data base, essential as its exclusive content and also as something requiring its causal explanation.

E and their depictions of their referents are obviously determined by more than only these referents themselves, which is something that Hurlburt’s (2011a) numerous “constraints” and the research on “altered states of consciousness” (e.g., Barušs, 2003 & 2012; Cardeña, Krippner & Lynn, 2014; Tart, 1976 & 1986) also indicate. Therefore, the research methodology of SHP must face and deal with the crucial difference between the  $D_{i3}(E_{i2}(E_{i1}(S_{i \text{ or } j1}, B_{i \text{ or } j1})))$  and  $D_{i3}(E_{i2}(E_{i1}))$  that actually are obtained and the objective  $D_i(S_{i \text{ or } j}$  or  $B_{i \text{ or } j})$  that are so routinely assumed to be obtained by SHP but are in fact unobtainable. This is the difference between the *validity* of such  $D_{i3}(E_{i2}(E_{i1}(S_{i1 \text{ or } j1}, B_{i1 \text{ or } j1})))$  and  $D_{i3}(E_{i2}(E_{i1}))$  in the sense of collegially judged conformity with SHP definitional norms (Krause, 2012) and their *veridicality* or truth by correspondence of D(S) with its S, D(B) with its B, and D(E) with its E. SHP must also take seriously the complex origins of the  $D_i(E_i)$  it necessarily relies on, because a described E is of a remembering of a somewhat prior E and occurs as colored by some state(s) of consciousness. For Physical Monists these latter must be properties of endo-somatic S, of neurophysiological events.

## 2. Rememberings

Recurrent rememberings (each itself an E) of an E are necessary for making all the dimensional and gradational distinctions required for the construction of a valid  $D_i(E_i)$ . One must first become sensitized to distinguishing among the several kinds of E (see Casey, 2000, 122-141) for recognizing it as a specific kind of E and then must distinguish its defining dimensions and its gradation on each of these (Krause, 2013a). This requires what may seem like a prolonged dwelling upon it but (so far as I can judge) cannot be because of the momentariness of every E (see Casey, 2008) and so of each successive remembering that is apparently necessary for

adequately describing any E in terms of a configuration of several dimensions' instantiated gradations. (This might also have disruptive consequences: Walker, Brakefield, Hobson & Stickgold, 2003). Thus, any initial  $E_{i1}$  to be described must be *recurrently* remembered enough to allow a multi-dimensional description of what seems over the course of the successive re-rememberings to be the same single  $E_{i1}$  referred to in the culminating  $D_{i3}(E_{i2}(E_{i1}))$ .

Recurrent remembering (e.g., Hurlburt, 2011b) or processing (Gendlin, 2004) of an  $E_{i1}$  for discerning its constitutive dimensions' gradations is necessary for producing its  $D_i(E_i)$ . This may be necessary because the  $E_{i1}$  had one or more of the following features. (1) It was "pre-reflective" (Depraz, Varela, & Vermersch, 2003, pp. 15-63; Petitmengin, 2006) or "un-symbolized" (Hurlburt & Akhter, 2008). (2) It so far has logically implicated but not yet specifically noted features (e.g., how confident an inference or saturated a perceived color), perhaps because the person was unable to note them (e.g., Zahavi, 2006, pp. 215-222), (3) It has unfamiliar but suddenly apparent dimensions or gradations. Such discoveries in re-remembering may be prompted by "tip-of-the-tongue" (Brown, 2012, pp. 5-29 & 123-169) intimations of there being more to describe or by surprisingly encountering some unfamiliar E in "day-dreaming" (McMillan, Kaufman, & Singer, 2013) or in "mind wandering" from a task of  $E_{i2}$  remembering and  $D_{i3}$  describing (e.g., Christoff, Gordon, & Smith, 2007; Fell, 2013; Schooler et al., 2011; Smallwood & Schooler, 2006; Smallwood & Andrews-Hanna, 2013). Even just patient incubation (Sio & Ormerod, 2009) or something between it and a kind of tip-of-the-tongue hovering (see Petitmengin, 2007) may sometimes enrich a  $D_i(E_i)$ . (See Josselson, 2009, on far spaced re-rememberings.) Much remains to be learned about the process of developing valid  $D_i(E_i)$ , which may well differ across persons and occasions. However, because of the key role of E in building SHP's data base, future SHP progress depends upon its field scientists producing valid  $D_i(E_i)$  and discovering what further kinds exist. This may prove to be a key aspect of SHP's ongoing "qualitative" revolution (e.g., Wertz et al., 2011).

SHP's study of  $D_i(E_i)$  has recently substantially resumed (since, e.g., Titchener, 1915, 18-26, and James, 1890, 120-129) perhaps most explicitly and systematically in the research work of Hurlburt (2011 a & b) and his colleagues on sampling and explicating whatever quotidian E occur and of Petitmengin (e.g., 2006, 2007; & with Bitbol, 2009) and others on explicating specific selected E or kinds of E. In the interval separating these times the clinical study of E has continued in the free associating or interpretation-prompted associations of clients in psychoanalytically influenced clinical work on E or B that are problematic in their nature (distortion) or in their absence (denial) for analysands (e.g., Bucci, 2000; Greenson, 1967, esp. pp. 10, 16, 32-33, 362; Kris, 1996; Vermersch, 2011). Free association can be conceived as a form of entrée to one's  $E_{i2}$  processes and one's selection of  $E_{i1}$  to so process.

Explication of one's  $D_i(E_i)$  by a trained research interviewer as well as interpretations of these by one's psychoanalyst can be conceived as other forms of such entrée (but vulnerable to either of such persons' more or less subtle acting out/countertransference and to the nature of the explicative or interpretational task (e.g., Kris, 1996, pp. 72-74 & 102-106) that is more actively and perhaps narrowly focused than private free association, day dreaming, or mind wandering. Furthermore, providing some of one's  $D_i(E_i)$  to another person as an essential aspect of one's getting help for one's poor felt quality of life is different from doing so as a lay informant assisting researchers (e.g., Wertz et al., 2011) by reporting or producing  $D_i(E_i)$  in order to learn

more about one's own  $E_{i1}$  and one's  $E_{i2}$  rememberings of them. One difference may be in the state of consciousness dimensions (to be discussed in the following section) of one's  $E_{i1}$ ,  $E_{i2}(E_{i1})$ , or  $D_{i3}(E_{i2}(E_{i1}))$ , which may differ over these phases in producing a  $D_i(E_i)$ .

Because describing  $E_i$  necessarily involves remembering them, SHP's extensive efforts at understanding cognitive learning and its demonstration by remembering ought to be richly informative about the genesis of  $D_i(E_i)$ . This research has, however, concentrated on the study of average across-person quantitative relationships between encoding (perceiving the objective stimulus to be remembered) and retrieval (as either later recalling or recognizing of this stimulus), which has suited traditional laboratory experimentation (see, e.g., Baddeley, 2012; Hintzman, 2011; Nairne, 2002; Roediger, Weinstein & Agarwal, 2010; Smirnov, 1973). Hintzman points out the inadequacy of this as representative of how persons actually remember (and see Cohen, 2008). Because learning and remembering can occur in both phases of such experiments and because there are multiple E in both phases, which E may interfere, potentiate, meld with...each other in both phases. "Much of the science of memory...rests on experiments that involve deliberate encoding and effortful retrieval...[but] incidental learning [can] be as effective as, or more effective than, intentional learning... The most important factor seems to be the relation between the original processing and the kind of information that will be needed on the memory test..." (Hintzman, 2011, p. 256), in other words between the perceptual  $E_{i1}$  and the experimenter imposed constraints on  $D_{i3}$  or  $E_{i2}$  of  $E_{i1}$ ). Furthermore, the orthodox experimental work on remembering perceptible stimuli involves veridicality tests that are obviously impossible for non-perceptual E such as intuitings, imaginings, intendings, etc. (see further chapters in the Cohen & Conway, 2008, reference).

Thus, despite all of the massive accumulation of research on remembering objective stimulus perceptions, much remains to be learned about the quotidian and clinical remembering and describing of  $E_{i1}$  of all sorts. Also, much more needs to be learned about the  $E_{i2}$  process in order to construct descriptions of this process itself (e.g., Petitmengin, 2006), which would be useful for learning more about how to train SHP field scientists for their crucial role in the progress of SHP. Because of E privacy and momentariness, the criteria of success in such endeavors cannot be  $D_i(E_i)$  veridicality criteria but must be validity criteria (compare how Petitmengin & Bitbol, 2009 & 2011, argue this), which will be further detailed in section 4 below.

### 3. States of Consciousness as Qualities of Experiencings

Every E and B occurs in some S context that is in part exo-somatic but is also in part endo-somatic, because all E and B must (as at least some of us believe) be properties of or most proximally causally influenced by neurophysiological events. The endo-somatic S context of E and B must determine what are called "states of consciousness" in which they occur or of which they partake. The variety of these dramatically demonstrates that human consciousness is not a uniformly standard state (see, e.g., Barušs, 2003 & 2012; Cardeña & Pekala, 2014; Tart, 1976 & 2003) and so that E also have state-of-consciousness dimensions. Therefore  $D_i(E_i)$  must be distinguishable also in terms of these and so their state-of-consciousness context. This means that an important facet of SHP field scientists' collegial dialogue for validating  $D_i(E_i)$  is the state of consciousness in which the  $E_{i1}$ ,  $E_{i2}(E_{i1})$ , and  $D_{i3}(E_{i2}(E_{i1}))$  occur. For example, feeling hungry,  $E_{i1}$ ,

when hypnotized because told by the hypnotist to feel hungry may differ from feeling hungry when “mindful” or when in one’s “ordinary” state of consciousness, etc. Remembering an instance of feeling hungry,  $E_{i2}(E_{i1})$ , may differ when one presently is feeling hungry from when one presently is not. The describing and so description of an instance of feeling hungry,  $D_{i3}(E_{i2}(E_{i1}))$ , may differ when one is feeling hungry from when one is not. Etc.

Hypnosis, mindfulness, stimulus deprivation, the various intoxications, hyperventilation, dreaming, lucid dreaming, the sense of being out of one’s body, etc. are some markedly “altered” states of consciousness (as, e.g., Barušs, 2003 & 2012; Cardeña, Krippner & Lynn, 2014; Tart, 1998 & 2003, have detailed). Strong emotions are some others (Tart, 1998), but even some quite mundane states such as being hungry, sleepy, preoccupied, satiated, mildly in pain...may influence how one initially experiences an S or B, or has any other E, remembers having done so, or describes what one remembers.

Thus, how one perceives and responds to one’s exo-somatic S obviously depends somewhat upon one’s endo-somatic S and so upon the state of consciousness in which one is impacted by and in which one responds to exo-somatic S. Equally obviously, one’s endo-somatic S can be affected by one’s exo-somatic S. Thus, SHP’s study of persons’ S (i.e., via  $D_{i4}$  or  $j_4(E_{i3}$  or  $j_3(E_{i2}$  or  $j_2(S_{i1}$  or  $j_1))))$  and persons’ E and B responses to them (i.e.,  $D_{i4}(E_{i3}(E_{i2}(E_{i1}(S_{i1}))))$  and  $D_{i4}$  or  $j_4(E_{i3}$  or  $j_3(E_{i2}$  or  $j_2(B_{i1}$  or  $j_1(S_{i1}$  or  $j_1))))$ ) properly must concurrently be of both exo- and endo-somatic S (and so the latter’s distinguishable manifestations in E and B in state-of-consciousness terms) rather than of either alone. Some of the residual dependent-variable variation (Krause, 2013b) that occurs in SHP studies of the effects of exo-somatic S logically must be due to variation in the concurrent endo-somatic S (and vice versa). Such possibilities complicate the task of SHP field scientists, who must attend to their states of consciousness and how these may influence their  $D_i(E_i)$  rather than simply assume the descriptions they offer as scientific data to be “objective”. Collegial dialogue alert to states of consciousness can and properly must facilitate this. SHP has much work to do about all this.

#### 4. Veridicality or Validity of Psychological Event Descriptions

Every psychological event must have some configuration of gradations on some set of dimensions. The kind of event it is determines what dimensions properly must be measured on for describing it and what gradations these measurements properly may take. A veridical or objectively true description of an event would perfectly correspond in dimensions and gradations to those of the event, but proof of veridicality requires proof of such correspondence and so requires knowledge of (i.e., *true* beliefs about) the event independent of E of it. We humans, however, have as yet no such extra-experiential proof of the nature of any S, B, or E, but have only our personal private momentary experiencings of these, our  $E_i$  including  $E_i(S_i$  or  $j_i)$ ,  $E_i(B_i$  or  $j_i)$ , as we remember these. Physical recordings (i.e., audiovisual ones) of an S or B face this same problem, but here regarding the S or B as represented in the recording rather than as the event that was recorded, which due to the transience of S and B cannot be compared. Therefore, our descriptions of psychological events, given that E themselves cannot (yet) be physically recorded, simply cannot be demonstrably veridical by correspondence, so they must be justified as valid SHP data on other grounds than objective truth (about which see, e.g., Schmitt, 1995).

Alternative to knowledge of truth by correspondence, traditionally subscribed to in SHP most narrowly as criterion-predictive validity and more broadly as convergent-discriminant validity (see Krause, 2012), is knowledge by coherence. This has been implicitly subscribed to in SHP most simply and informally as face or content validity and somewhat more complexly, formally, and ambiguously as construct validity (see, e.g., Krause, 2012; Lissitz, 2009). However, none of these versions of coherence properly credits its social and cultural aspects, which require that it be normative in the way definitions are normative constraints on language usage in a linguistic community. Dimensions descriptive of psychological events properly must have normative SHP definitions that constrain how these events are measured and described in SHP so that these events' descriptions conform to their respective definition's multiple dimension requirements and to these dimensions' definitions themselves which also must specify their gradating. Such definitional norms can be properly based only upon representatively achieved consensus within the SHP community (Krause, 2012), something undoubtedly difficult to achieve but nevertheless essential for any truly coherent body of SHP research to develop.

The fact that events can be described by persons only on the basis of their E of them and that all E are private and momentary makes assurance of the coherence of the measuring and describing of E with normative SHP definitions of the several specified dimensions of each of the various kinds of E, B, and S a subtle and difficult matter. No  $D_{i3}(E_{i2}(S_{i \text{ or } j1}, B_{i \text{ or } j1}, \text{ or } E_{i1}))$  can be directly compared with the now past S, B, or E events themselves. So there is no immediate and direct way here to assess the correspondence between description and described, because the described event's moment has passed. A physical recording of an S or B can, however, be repeatedly consulted for how someone's also recorded  $D_{i3}(E_{i2}(S_{i1 \text{ or } j1}, B_{i1 \text{ or } j1}))$  of this S or B compares with the recording of it. Any discrepancies found between such a pair of recordings cannot be properly dialogically resolved for the description's proper inclusion in SHP's data base unless the author of the recorded description of her or his perception of the recorded S or B described is party to the resolution process. This means that physical recording of S and B cannot circumvent the problem of SHP's, indeed of all our empirical sciences', ultimate dependence on subjective evidence, on D(E).

One's  $D_{i4}(E_{i3}(E_{i2}(E_{i1}(S_1 \text{ or } B_1))))$  can be compared, if recorded, with others' recorded descriptions of the same  $S_1$  or  $B_1$ , and one's  $D_{i4}(E_{i3}(E_{i2}(E_{i1})))$  can be compared if recorded with what seem reasonably comparable recorded  $D_{j4}(E_{j3}(E_{j2}(E_{j1})))$ . For S and B, different perceivers' descriptions of their concurrent perceivings of their consensually judged same S or B can be compared. For E one's own various re-rememberings of what seems to one must be the same  $E_{i1}$  can be compared. However, since none of the concurrent descriptions of a given S or B and none of the several successive descriptions of what seems must be the same  $E_{i1}$  are criterial (i.e., demonstrably veridical), nor properly is any average of either insofar as they vary and so are unreliable and thus all (or all but which one?) invalid. A  $D_i(E_i)$  can only be assessed for validity in terms of its coherence with the normative SHP definition of the dimensional composition of its referent and then with the normative SHP definitions of these dimensions and (to be discussed in more detail later below) the qualifications of the description's source as an SHP field scientist and of the collegial test of this  $D_i(E_i)$  for admission into the SHP data base.

Sometimes a dimensionally or gradationally novel  $D_i(E_i)$  may require the refinement of some currently SHP normative dimension definition or the addition of some dimension in the



definition of some kind of S, B, or E rather than refinement of this  $D_i(E_i)$  itself (see, e.g., Barušs, 2003; Hilgard, 1977; Sopa & Hopkins, 1989, about some rather novel kinds of  $D_i(E_i)$ ). So every collegial testing of  $D_i(E_i)$  must be open to the possibility of such novelties and an SHP forum for debating and legislating changes in the dimension sets and definitions of S, B, and E must be established to allow for inclusion of novel  $D_i(E_i)$  in SHP's data base.

Ensuring the validity of  $D_i(E_i)$  on the basis of their coherence with SHP's normative multi-dimensional definitions of the various normative kinds of S, B, and E requires that a normative SHP taxonomy of these has been established. Ensuring that it is an optimal taxonomy for SHP's purposes requires that SHP be open to discoveries of additional kinds/taxa of S, B, and E. This properly requires achieving consensus on particular  $D_{i4}(E_{i3}(E_{i2}(E_{i1})))$ , including  $D_{i4}(E_{i3}(E_{i2}(E_{i1}(S_{i1 \text{ or } j1 \text{ or } B_{i1 \text{ or } j1}))))$ , through dialogue among SHP field scientists. Thus, the admissibility of novel  $D_i(E_i)$  and the existence of an SHP normative taxonomy of psychological events are interdependent aspects of the governance of SHP, something that now only loosely exists. Nevertheless, SHP's data base can properly consist of nothing else than records of private measurement-based descriptions of its vetted field scientists' remembered psychological events, because only these can be its demonstrably valid data. Therefore, SHP requires a wide sampling of persons to be trained to be its field scientists if SHP is to fulfill its responsibilities as a public enterprise, which includes describing how and explaining why the full variety of persons live their lives as they do and better might.

## 5. Measuring and Describing Experiencings

“Self-reports are a crude measure of awareness and are potentially susceptible to demand characteristics.” (Smallwood & Schooler, 2006, p. 144) and to other situational influences (e.g., Schooler & Schreiber, 2004). Nevertheless,  $E_{i3}(E_{i2}(E_{i1}))$ , which some call “meta-consciousness” (e.g., Winkielman & Schooler, 2012) but can only be rememberings, are indispensable to SHP for describing all that matters to human beings. This is so because SHP is a human enterprise that must rely on  $E_{i3}(E_{i2}(E_{i1}))$  for all its descriptions of E, S, and B. Therefore SHP can depend only upon careful selection and training of its field scientists and their collegial monitoring of certain of their  $D_i(E_i)$  for achieving the validity of the measurements and so descriptions of psychological events that SHP requires for its data base. Indeed, “self-reports” are indispensable for SHP, because it (like all the sciences) has nothing else with which to stock its data base about its subject matter.

Measuring requires some form of comparing the measured with a measurement scale representing a set of gradations on a dimension in order to determine which gradation matches the manifestation of the dimension in the particular event or object measured. Because of this and implicit in the nature of E are the following propositions: (a) Persons' E are inherently private and momentary. Therefore, (b) only the person (i) whose E it is ( $E_i$ ) can directly compare it with a dimension's gradations and so measure it on this dimension. (c) Measurements on more than one of an E's dimensions are essential for fully describing any E but cannot be taken simultaneously with the occurrence of this E itself or with each other. They can be taken only serially on some successive and so increasingly later rememberings of what at each of these times seems this same  $E_{i1}$ . (d) Only over the course of an  $E_{i2}(E_{i1})$  can one measure enough to

describe an  $E_{i1}$  in terms of SHP's normative dimension set for such an E. (e) This description represents a fusion of the successive  $E_{i2}(E_{i1})$  rememberings into a single  $D_{i4}(E_{i3}(E_{i2}(E_{i1})))$ , wherein the numerical subscripts signify the temporal order of the events and the boldness of the subscript  $_2$  signifies the serial nature of rememberings of gradations on different dimensions of any  $E_{i1}$  that is ultimately described. It can only be in such a serial process that any Husserlian epoché/reduction for clearing away preconceptions must take place (see, e.g., Depraz, Varela, & Vermersch, 2003; Ihde, 1977; Petitmengin, 2006; Thompson, 2007, pp. 16-36 & 282-297). These five propositions, a – e, are the foundation upon which the validity of the measurement and description of all psychological events must depend and so upon which SHP data production logically depends.

Because of the privacy of E only the person whose E it is can measure an E on its constitutive dimensions and measure its referents on their dimensions. Only this person can remember this measuring for describing this E and its referents. Therefore, the validity of E measurements can only be indirectly judged by anyone else. They can judge a particular  $D(E)$ 's credibility and also its describer's relevant definitional knowledgeable, dedication to valid measurement and description, and competence at and present capability for measuring and describing this sort of E. Such judging properly is done for SHP on the basis of how this person deals with SHP field scientists' queries and suggestions about her  $D_i(E_i)$  and of how her biography supports her meeting the personal criteria. These latter include her training as an SHP field scientist, her prior  $D_i(E_i)$  accepted into or rejected for inclusion in SHP's data base, and any other historical basis for believing or doubting her present qualification to be an SHP field scientist. However, what properly is most crucial for admitting a  $D_{i3}(E_{i2}(E_{i1}))$  into SHP's data base is its acceptance as valid by a panel of SHP field scientists, which makes their openness to fairly judging novel  $D_{i3}(E_{i2}(E_{i1}))$  crucial for SHP. All description validity is an essentially cultural matter.

Valid descriptions of psychological events require something more than just being based on valid measurements, because they must also be in terms of the current SHP-normative set of relevant dimensions for the type of event described. To describe something is to ascribe to it one or more qualities, each as present in some specific degree. E may be, for example, clear, engrossing, distressing, evocative, strange, dissonant, etc. to some specific degree. B may be forceful, hesitant, calculated, revealing, skillful, successful, etc. to some specific degree. Exo-somatic S may be surprising, dangerous, gratifying, multi-personal, familiar, engulfing, etc. to some specific degree. Endo-somatic S are still too poorly distinguished and understood to even begin such a list. A major task facing SHP is to develop a normative set of definitions of and gradation sets for its events' dimensions. However, SHP has yet to develop even some regime for rationally developing adequate sets of dimensions for E, exo-somatic S, or B (and Neurophysiology is presently no better off regarding endo-somatic S), so to now establish such a regime is the most essential and pressing task for SHP.

E are momentary as well as private (e.g., Hurlburt, 2011a, 81-92, offers demonstrations of this momentariness as a research issue) and the measuring and describing of an E necessarily must be as it is remembered in terms of some set of dimensions. Therefore, such measuring and describing must occur over some extended duration of time and involve some successive

momentary re-rememberings of the E to be described<sup>3</sup>. Every  $D_i(E_i)$ , then, necessarily represents a “fusion” of rememberings of an  $E_{i1}$  (see, e.g., Depraz, Varela, & Vermersch, 2003, pp. 15-112 & 192-203; Petitmengin & Bitbol, 2009). This temporal process,  $E_{i2}$ , is still poorly understood although now characterized by some as at least in part an “explicitation” or “epoché” or “reduction” process (which, according at least to some of us, must ultimately prove to be some sort of endo-somatic and so neurophysiological process)<sup>4</sup>. Hurlburt (2011a, pp. 152-177) emphasizes the iterating of explicitation processes over a series of a subject’s  $D_{i3}(E_{i2}(E_{i1}))$  of the presumably same  $E_{i1}$  by a trained interviewer as the training of someone to be a lay informant about her  $E_i$ . Petitmengin’s (2006) and Vermersch’s (2009) emphasis on the explicitation process itself as one of epoché/reduction is intended to improve a subject’s  $E_{i2}$  processing for producing the  $D_{i4}$  of some particular  $E_{i1}$  and so, apparently, to achieve a veridical  $D_{i4}(E_{i3}(E_{i2}(E_{i1})))$ . These are two quite different objectives for the explicitation of E, that of developing a skill and that of veridically describing a specific  $E_{i1}$  (and perhaps thereby resolving a personal problem of denial or distortion).

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<sup>3</sup> “Introspective access” to one’s “mind” (see, e.g., White, 1988) would seem to require the assumption that persons have some sort of neurophysiological storehouse from which they can voluntarily/intentionally review or recall E or evoke B, whereas a variant of supervenience theory (e.g., as presented in Horgan & Timmons, 2011; Velmans, 2000, pp. 246-7, 253-60, & 276-7) implies that there is simply some flux of somewhat replicable neurophysiological events (N) with E properties and B effects, of which some *seem* effects of E due to their regular following of and so predictability by E. Such a theory requires no observing executive ego or “ghost in the machine” (Ryle, 1949, pp. 11-24) for reviewing, recalling, reflecting on E or evoking B or E. Thus, the E flux may include some intendings to remember E, to reflect upon one’s nature as a person, or to enact B, but it must be the neurophysiological events upon which certain believings and intendings are supervenient (as properties, rather than as effects as Kim, 1998, proposes) which have the causal influence that popularly seems to be of these E (which would profoundly simplify discussions such as that in Winkelman & Schooler, 2012, wherein there is no hint of the possibility that meta-cognition is simply remembering). If one’s consciousness is simply an E-flux property of an activation pattern in one’s brain and if one’s “mind” is simply one’s live brain and extending neurons, as physical monism (e.g., O’Connor, 1969, pp. 1- 19) would have it, then who or what could it be that has “introspective access” to one’s “mind” and so requires mind-body dualism, and what need would there then be for the notion of unconscious E.

The notion that persons have unconscious E is paradoxical because E *are* consciousness and vice versa, so the better notion is that persons have latent dispositions or unconscious potentialities for E, which are either positive potentialities (as in, e.g., obsessive thinking, projection, hallucination) or negative potentialities (as in, e.g., forgetting, suppression, repression, hysterical blindness). These must be neurophysiological matters, matters of brain events rather than of the logically unnecessary dualist notion of unconscious mind (which latter Wilson & Dunn, 2004, e.g., apparently subscribe to, using “mind” where “brain” would be more appropriate). Considering E to be supervenient upon (in the sense of being *properties* of) N obviates the need for any such mind-body dualism and makes consciousness (and so mind) entirely a property of a living brain.

<sup>4</sup> There can be no guarantee that one remembering of a given E will be identical with another remembering of it or, thus, of enduring veridicality of rememberings, whatever the explanation for their somewhat loose association ultimately turns out to be (e.g., Holmes, Waters, & Rajaram, 1998; Wilson & Dunn, 2004). Some process of producing a valid, even if never objectively verifiably veridical,  $D_{i3}(E_{i2}(E_{i1}))$  is necessary. There is simply no way to certainly assure that this has been achieved since E are private and momentary, but there are ways to prepare, vet, and assist SHP field scientists for producing valid  $D_{i3}(E_{i2}(E_{i1}))$  and to test and help refine these and other persons’  $D_i(E_i)$  (e.g., Depraz, Varela, & Vermersch, 2003, pp. 65-96; Froese, Gould, & Seth, 2011; Hurlburt, 2011a).

## 6. Measuring and Describing Situations and Behaviors

Descriptions of S (e.g., Krause, 1970; Yang, Read & Miller, 2009) or of B (e.g., Krause, 2005) are necessarily descriptions of and require some successive rememberings of  $E_{i1}(S_{i1 \text{ or } j1})$  or  $E_{i1}(B_{i1 \text{ or } j1})$  in order to validly measure and then describe an S or B as remembered. Obviously descriptions of any given S or B can vary somewhat across co-observing SHP field scientists, because each such observer necessarily perceives and so measures and describes from a somewhat different biographical and physical standpoint. Thus, any claims of scientifically objective or veridical  $D_i(S_{i \text{ or } j})$  or  $D_i(B_{i \text{ or } j})$  on the grounds of having avoided all subjectivity (the possibility of which, e.g., Jack & Roepstorf, 2003; Kane, 2011; and Froese, Gould, & Seth, 2011, seem to me to rather acquiesce to) logically must be doubted. So variation across descriptions of what seems to have been the same S or B is deeply problematic for SHP, because SHP properly requires justification for relying on and so archiving in its data base any particular one of alternative descriptions of the apparently same S or B. A veridicality or truth-by-correspondence criterion is clearly inapplicable here (Petitmengin & Bitbol, 2009).

This problem is not soluble by the often pragmatically convenient and either explicitly or implicitly relied upon psychometric assumption that all qualified-observer variation in “independently” made descriptions of the same perceptible event is random around the described’s true location in the relevant descriptive hyperspace. It is not soluble, because on the basis of the mathematical definition of randomness (e.g., Feller, 1968, p. 30) this assumption is logically unjustifiable and empirically untestable. This is so because all the evidence SHP has to work with here are different observers’  $D_{i4}(E_{i3}(E_{i2}(E_{i1}(B_{i1 \text{ or } j1} \text{ or } S_{i1 \text{ or } j1}))))$  of the apparently same B or S, respectively, for which there is no plausible basis for considering the observers to have produced a large enough *random* sample from some population of  $D_i(E_i)$  the centroid of which must be that B’s or S’s true location in this descriptive hyperspace (Krause, 2015). Furthermore, how would such a population of co-observations be defined and each member of it have an equal or known probability of being (i.e., randomly) sampled? Thus, veridicality must be replaced here by some other criterion of scientific legitimacy for SHP data, which can only be that of SHP normative definitional validity. On this criterion, inter-observer variation in descriptions of the apparently same S or B requires a quite different resolution than simply being averaged over. Like for all  $D_i(E_i)$  it requires being properly dialogued about among SHP field scientists for resolving disagreements regarding what the valid  $D(S \text{ or } B)$  is (compare, e.g., Galbusera & Fellin, 2014).

## 7. The Testing of Descriptions of Experiencings

Each measuring and then describing of a person i’s  $E_i$  involves a series of this person’s private momentary  $E_i$  that constitute an  $E_{i2}(E_{i1})$  that results in some  $D_{i4}(E_{i3}(E_{i2}(E_{i1})))$ . Thus, there can be no direct evidential basis for challenging any particular such measuring process’ validity. Only the resulting  $D_{i4}(E_{i3}(E_{i2}(E_{i1})))$ , the person’s manifest misunderstanding of what are the relevant dimensions or their definitions, or evidence of the person’s lack of dedication to, competence at, or capability for validly measuring and describing such E or the S or B they refer to can provide such a basis. Challenges may be based on the person’s own retrospective misgivings or on whatever misgivings SHP field scientist colleagues reasonably have about this person or else

about this  $D_i(E_i)$  in the course of their dialogue with this person about this  $D_i(E_i)$ . It ultimately is a matter of trust in the person (Jack & Roepstorff, 2003 & 2003-4) as an SHP field scientist. How could persons who are not SHP field scientists reasonably be trusted and so relied upon to produce valid measurements on an E and in terms of these produce a valid D(E, S, or B)? Yet they still are routinely relied upon in SHP (see, e.g., the notable Smallwood & Schooler, 2006, paper) and must be considered a resource for discovering novel E for SHP.

Reservations by colleagues about the validity of an SHP field scientist's particular  $D_{i4}(E_{i3}(E_{i2}(E_{i1}(S_1 \text{ or } B_1))))$  can properly be based on their perceivings of the apparently same S and B that seem to them indicative of what this field scientist's perceiving of the S or B ought to be. However, such reservations about any  $D_i(E_i)$  can as well be based on colleagues' perceivings of the informant's own concurrent S or B that are inconsistent with the informant's expressing this  $D_i(E_i)$ . For example, his unusual B in response to an S that seems to them quite routine for him should make them wonder at his describing this S as neither revelatory nor stressful or at his description of this S as not cognitively dissonant. His description of an E other than a perceiving may be accompanied by B that seem to his colleagues inconsistent with his  $D_i(E_i)$ . For example, a frown accompanying a remembering he describes as happy, hesitancy in describing an inference or decision he describes as easy, manifestations of distress accompanying a description of an E as merely curious, etc. Such inconsistencies (perhaps involving endo-somatic S data: e.g., Fell, 2013) as well as  $D_i(E_i)$  that are unfamiliar or incomprehensible to colleagues call for dialogue with these colleagues that resolves these problems if the validity of the given  $D_i(E_i)$  and perhaps the qualification of this person as an SHP field scientist is not to be impugned.

The requirement of a rigorously tested validity and so an eventual mutual understanding of each  $D_{i4}(E_{i3}(E_{i2}(E_{i1})))$  between the field scientist who reports it and the colleagues with whom it is discussed sets a very high standard for what D(S, B, E) qualify for inclusion in SHP's data base, far higher than presently required. (See, e.g., Hurlburt, 2011a, pp. 325-360, on this conclusion.) Although such validity does not entail the veridicality of any  $D_i(E_i)$ , reliance on it in what turns out to be a successful action (B) is corroborative of the  $D_i(E_i)$ 's pragmaticity, which is as close as we can come to veridicality for any  $D_i(E_i)$  (see, e.g., James, 1904).

At least some of each SHP field scientist's measuring and describing of her E for SHP's data base properly must be done in the company of various other SHP field scientists also doing so. This allows each of them to monitor the S and B context of the others' measuring and describing of their E of these S or B and to immediately query one another about any D(E(S or B)) any of them have reservations about. Colleagues can also compare  $D_i(E_i)$  that refer to whatever they agree to be similar enough S, B, or E and use this as the basis for discussing and thereby justifying or ultimately resolving their misgivings about a  $D_i(E_i)$  at issue.

Although recurrent collegial monitoring must certainly seem to many an onerous and crude method for validating measurements of E on the basis of the  $D_i(E_i)$  derived from such measurements, nothing better is possible given propositions (a) – (e) in section 5 above. This in effect constitutes continually re-vetting each other as SHP field scientists. Therefore, SHP field scientists need to have extensive familiarity with this sort of interpersonal validating process. Depraz, Varela, & Vermersch, 2003, pp. 65-96 and Hurlburt, 2011a, for example, describe versions of such a process. So too do Froese, Gould, & Seth, 2011, with whom Hurlburt (2011b),

Petitmengin (2011), and Vermersch (2011) then variously disagree. However, none of these versions involve the routine dialogical monitoring among *already* trained and vetted SHP field scientists that is proposed here nor emphasize the ultimately normative basis for the validity of D(E).

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