

Pierre Vermersch

*No Competition Between
DES and EI*

Reply to Froese, Gould and Seth

It is absurd and without any scientific interest to try to play off DES against EI, as if the question was to know if one method is better than the other in the absolute. All methodological inventions deserve to be tried and tested. But the question is how apposite are they to their object of study. However, Froese and Gould's article opens a range of issues that are important and interesting. I would like to contribute my own vision of the answers to these questions.

The key issue is that of the reliability of verbal reports, whether collected at the very time of the experience (DES) or *a posteriori* (EI). To answer this question, we must have elements of comparison, that is independent data sources. It is pointless to ask 'whether the subject really experienced what he is describing', because no one has the possibility of objectifying his/her experience and then comparing it to the verbalizations related to this experience. As researchers, what we know about this experience is what is said about it. However, it is possible to compare verbalizations with traces and observations concomitant with the experience of reference, and to assess the plausibility of what is said, given that every experience takes place in the world and must obey physical, temporal and logical constraints. And the more numerous these constraints are, the more they have the opportunity to unfold, the more they will enable us to corroborate the accuracy of what is said and to measure the distortions (which are just as interesting).

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In this discussion on reliability, I give therefore a key role to the ability of the different types of task or situations to facilitate this evaluation of verbalizations. I emphasize the interest of studying productive tasks, which are finalized, articulated, and of a length which is sufficient but not excessive.

I will not try to discuss the relative value of theories of consciousness. Whether a theory is true or not is not important. In the genesis of my approach, I did not start with the theory of my practice. I began with inventing a practice, and in so doing I collected verbalizations which surprised me, which did not fit with the limits of memory that I had been taught at university. In addition, the subjects who stated them were themselves surprised to discover what they were able to remember, even if they identified well that this belonged to their experience. The model of pre-reflective consciousness stemming from Husserl's phenomenology finally emerged as the only possible source of intelligibility for autobiographical detailed memory. This modelling may be wrong, but that is not what is important. What is crucial is the possibility to gather information on the experience of the subjects. If I do not put myself in the position to try it, to do it, I may *believe* that it is impossible and useless (Hurlburt), but this does not prove that it is impossible or useless.

A. Three types of studied situations and their implications for the possibility of assessing the reliability of verbalizations

Tasks or situations to be studied are first selected according to their relevance to the subject of study, i.e. they must enable the collection of empirical data that will bring us knowledge. But when we discuss methodology, we must carefully note the fact that researchers are inclined to study a privileged type of task. The positive consequence is that they can bring more and more precise conclusions on their subject of study. The negative one is that they may not realize they have developed theoretical discourses and methodological practices that are *ad hoc* to these types of situations and cannot be easily transferred to other situations. In my view, this is the case with Hurlburt; in other words, I have no criticism about his research, but his methodology seems to be *ad hoc* to his subject of study and cannot be generalized. In fact, it is especially appropriate to study states, addictions, and all subjects of study that are continuous throughout the day. If there is *continuity*, then all lived moments are equivalent, and it is possible to select them randomly while remaining relevant.

(1) The DES method. Specifying the experiences of reference randomly throughout the day, why not? It is an interesting and original idea in its principle and cannot be dismissed out of hand. Nevertheless in my view, it presents several limitations since it cannot suit all subjects of study.

- This method is not appropriate to study all situations: it is well suited for continuous situations (diseases, addictions, specific ways of relating to the world), but not for finalized and time-limited situations, such as performing a task or experiencing particular types of event (for example epileptic seizures), which have their own temporality, and can only be studied at the very moment they occur according to their own logic, or through retrospective access.
- In particular, this method will not enable us to study the activity which occurs in response to the solicitation of the beeper. It will not allow this since this activity is a time-limited event and (according to the criteria of the author) must be described just afterwards in order for the description to be reliable. To study the practice of the method, another method should be used.
- It is not sure that the method does not introduce a bias related to the wait for the beep all along the day, and a response mode which at the same time improves through repetition and deteriorates through habit. The beeper creates a predictable unpredictability, as we know it will happen, we just do not know *when* it will happen. It may therefore create an expectation, or even an attitude of preparation, unlike an unpredictable unpredictability, for which we cannot prepare ourselves because we do not even imagine it could happen. Among the biases introduced by the *provoked* methods, the beeper method installs a framework which is provoked by the researcher, unlike the invoked methods where the subject lives his experience without knowing that he will have to account for it one day. But to assess this waiting bias, we should have to leave the beeper method, in order to focus non randomly on the particular moments when the beeper rang.
- The method comprises two stages: 5 or 6 beeps during the day, and an interview which takes place no later than the next day. But to conduct this interview, one must induce the subject to refer precisely to each of the beeps. Certainly there are the notes that were taken just after the beep, but we then assume that reading his notes enables the subject to deepen his description. To conduct these interviews we abandon the beeper method.

(2) For my part — and in the case of most of the research that used EI — I mainly studied situations which were productive (a result is expected and must be produced), finalized (the subject has a clear objective), articulated (they are composed of distinguishable stages), temporally long enough to give rise to an unfolding of the experience, but not too much so as not to be a challenge for memory (cf. Maurel's inventory [2009]). These situations were well adapted to our subjects of study, but now they seem to me especially relevant when considering issues of reliability. I will come back to this question later in more detail.

(3) Finally, in the example suggested by Froese and Gould at the end of their article as a paradigm of double-blind approach, it is a perceptual task that is proposed. For me this task is unproductive, poorly finalised, poorly articulated (as a contemplative activity), almost an instantaneous event. To my mind it is the kind of task which, contrary to appearances, is particularly unsuitable for assessing reliability. Too much simplicity makes the analysis weak and insufficiently discriminating, although one can have the illusion that it will be sufficient to make a count as in any study on memory, in order to obtain an accurate and reliable assessment. In addition, we know now that the subject does not only memorize the experimental equipment which is proposed, but also the context, the elements of the situation which have 'affected' him. The subject is not a mechanical recorder, so if you want to know what he retrieves from his past experience, it is important to help him describe anything he retrieves and not only what the experimenter is expecting. Each element of the experience is intertwined with all the other elements, and awakening one of them may lead to awakening another (as with Proust's Madeleine).

B. Questions of validation

These three types of tasks do not represent all the types of possible tasks, but their differences at least enable us to formulate the problems of reliability more accurately. We have a type of situation which is continuous (Hulburt), a type of situation defined as a task, thus finalised, productive, articulated, and which lasts for a limited time (Vermersch *et al.*), and on the other hand a poorly finalized, unproductive, unarticulated, and instantaneous perceptual task (the authors).

From this point, we can come back to two issues raised by the authors. The first one is: 'But how do we even know that these additional details were actually experienced previously?'. The second one

is how to assess the reliability of verbalizations in relation to what has been experienced?

- The first question looks rational, but there is no way to answer it and to that extent it is irrational and unscientific. The only way to answer it would be to compare subjective data independently of verbalizations. However this comparison is impossible since there is no objective means of recording inner life (or at most neurophysiological signals that may correlate more or less precisely with the semantics of what is described). So there is no way to answer this question definitely. And any attempt to protect oneself from this potential bias is constrained by preconceived beliefs.
- The second question can be answered in many ways, which are all indirect. I could rephrase it, for example: Can I corroborate what someone verbalizes from his past experience? Can I detect and establish contradictions? Or impossibilities? Or inventions (whether they are reconstructions or not)? Here I come back to empirical questions about the possibility of assessing the accuracy of what is said. The basis of these responses is the comparison between two systems of independent data, in all their possible variants, of which I am going to make a brief inventory. But what is thus crucial is to get data which are independent of verbalizations.

To provide oneself with means of comparison, one needs to study situations that are not continuous. What is at stake is not only not to deprive oneself of studying all human situations, especially situations of work, sports, leisure, or education, but above all that finalized situations give rise to valuable means of validation.

To describe the experience associated with problem solving, realising an artistic or athletic performance, or performing a professional task, all in fact lead to numerous possibilities for assessing the fidelity of verbalizations. This is because they enable you to:

1. Collect and record traces and observables

Since what we are studying produces data which are recordable (gestures, movements, verbalizations, nonverbal expression, clues of mental actions), verbalizations must be consistent, and congruent with observables and what can be inferred from them.

Either (1a) they are consistent and therefore are corroborated.

In a study on the verbalization of a — long and arduous — process of problem solving, we videotaped the process of resolution, and then we

conducted repeated interviews over several months. At each new interview, the subject claimed not to remember anything, but successive interviewers always managed to obtain the same descriptive features, plus new information (Ancillotti and Morel, 1994). It is not rational to assert that something is impossible; at most we can establish the limits of what we obtain, and examine whether the method is consistent with the aims which are pursued. Nisbett and Wilson thought to prove the absence of introspection by asking subjects the reasons for their actions instead of the description of their actions, and they obtained the subjects' naive theories on what they did, not the description of their actions (Nisbett and Wilson, 1977).

Or (1b) they are not consistent, and in this case:

Either (i) they are contradictory, and in this case a lack of validation is established, but this type of information enables us to appraise the subjective distortion, it is thus important to know (negative information is just as valuable as positive information, as long as it can be clearly established).

Or else (ii) they are different, and in this case they highlight a facet of subjective experience that does not lead to observable facts but must nevertheless be taken in account if one wants to know if it has an actual effect on the realisation of the task.

For example, the goalkeeper says he stands in the middle, and the recordings show that he is always asymmetrical.

(a) What he says is objectively wrong; his verbalization of 'being in the middle' is wrong, as he is slightly off centre; however (b) his subjective evaluation of the 'middle' may be important, and needs to be taken into account in order to understand the effectiveness or ineffectiveness of his performance. Several studies are available where the recordings do not enable the researcher to observe anything of a given subjective event, neither in the voice or facial expression, nor in the content of what is verbalized, yet the subject verbalizes subjective events that have a significant effect on his performance (the example of the hurdle race [Gouju, Vermersch *et al.*, 2007], perturbations of the long-distance shopper [Cahour, Brassac *et al.*, 2007], tactical decisions in rugby playing [Mouchet, 2005]). All these examples cannot simply be classified under the heading 'unreliable', and they raise possibilities that nobody had envisaged and must be taken into account for future research.

2. *When you do not have recordings: corroborate the descriptions of acts.*

(2a) *Consistency between the verbalizations and the constraints on actions*

Even if you have no recordings, when investigating an invoked situation for example, the mere fact that the subject's activity is finalized, organized by a goal, the means to achieve it, and the necessary steps to reach it, enables us to compare what is said with the material, logical, and chronological constraints. We are then in the well known logic of a police investigation, where everything that the witness or the defendant says must be consistent with these constraints. You cannot even accuse yourself, if you could not be physically present, if you did not have time enough, if you did not have the means to be in the place, etc. However, if you bought a gun along the way, we can rightly infer premeditation.

(2b) *Contradictory questions on the basis of the properties of the action*

Moreover, the involvement in a finalized activity allows us to obtain verbal descriptions of properties of the action which can be confronted with questions that can be answered only if the descriptions are effective. This is partly the logic of critical interviews of the Piagetian type to make counterproposals to evaluate the child's claims; or of Schotte's questions to evaluate a pathology (Schotte, 1997). Guillaume's example (Guillaume, 1948), that we often used in the EI training, is very clear from this viewpoint. The task consists in learning a matrix of nine numbers, whose composition does not allow the subject to use a simple mnemonic device. While the subject is learning it by heart, one can observe gestures or signs of subvocalization, which give clues about the fact that he is using a memorization strategy of oral recitation, of number placement, or of visualization of rows or columns. But it is sufficient to ask him the four corners or the diagonal of the matrix, in order to know whether his access to his memory is of a visual type (in this case all the boxes are equally available in memory), or of a sequential type as for recitation or placement (in this case the subject is forced to scroll through all the intermediate boxes to access the next one and it takes much longer between each response).

(2c) Congruence of independent data sources

Lastly, in all cases, finalized productive situations provide a framework for comparing different subjects or different performances of the same subject. For example, C. Petitmengin, in her research on the acts of intuition (Petitmengin, 2001), by obtaining invariants about these acts in an independent way (the subjects do not know one another), highlights processes that become plausible simply because they are formulated in a similar way.

Of course, not all research studies lend themselves equally to this work of triangulation and intersection, or rather do not lend themselves immediately to it (see the example of Depraz [2009]). But the scientific value of a research project is in fact determined by the history of this type of research and by the way the research community independently confirms the same type of data or not. If we want to do methodology-oriented research, primarily aimed at assessing the reliability and the sensitivity of data collection, then we must choose suitable paradigms.

C. The interviewer's skills

The authors touch upon the issue of the assessment of the interviewer's skills. This is a good idea, but trying to evaluate it through the number of 'right answers' seems to me a bit limited and, in all cases, unrelated to the skill which is actually exercised.

The skill of an interviewer relies heavily on relational skills that enable him to get the subject to consent to relate to his past experience in a very detailed way. This allows him to guide the description towards a fine fragmentation of what has already been said, but which has been formulated with a global temporal mesh. This means that one of the essential skills of an interviewer consists of mastering a 'structural' categorial space of the description of any experience, which allows him, without inducing the content of the response, to hear what is not said, what is missing to be more precise, and to use prompts which *on the basis of what has already been said* lead towards more details. But one of the most important skills is probably to ask questions that do not induce the content of the answers. It is crucial not to suggest answers to the other and not to create false memories. Studies on testimony have clearly demonstrated how easy it is to create in another person memories of situations that never occurred, except in the representation they created on the basis of inductive questions suggesting their existence (Loftus, 1979; Loftus and Ketcham, 1991).

D. Beliefs about memory

Hulburt has strong beliefs about the unique qualities of a naive and immediate apprehension of experience. If they were true and well established, it would be a remarkable scientific result in the field of psychology of memory and testimony.

But to my knowledge this is not the case. In fact, this assumption is not very plausible, because if it was the case we would be a society of 'Alzheimerised' persons, and moreover this discussion could not take place.

However it is interesting to study how our relationship to past experience changes according to the time which has elapsed. It is interesting not only to examine the causes of forgetting, conservation, revival or emergence, but also to consider all the information that is still available when I do not think I remember anything. The simplest method, implemented by the approaches of hypermnesia, shows that it is enough to re-ask questions to enable new information to be recalled, which seemed not available any more and thus forgotten. We know that human memory may be spoilt by many errors (see Husserl and the motley character of memories [Husserl, 2001], and the inventory of these types of errors in Loftus and Ketcham [1991] and Schacter [1997]) or post hoc reconstruction (Piaget and Inhelder, 1968). But the fact that there may be errors does not lead to the conclusion that *everything* is wrong! In fact, if our memory was not pragmatically reliable in terms of meeting the needs of our personal and social life, there would be no personal and social life anymore. It is the relative stability of our memory that can establish the continuity of our consciousness, and when it is no longer the case we are hospitalized!

The question that arises is how to measure and control these errors and identify them as such, because their manifestation may be very interesting for research. Sometimes it is sufficient not to induce or suggest the answers in the questions we ask, in order to avoid creating 'false memories' (Loftus, 1979); in other cases it is sufficient to verify the 'source memory' (Schacter, 1997), i.e. to ask questions to help the subject to discriminate if what he is remembering belongs to a singular experience, temporally specified. But as we work on human beings, and not with machines, a specific feature of subjectivity is to include meaningful errors, and it is thus important to find ways to cross-check verbalizations with independent data, such as traces or observations.

Conclusions

The theoretical hypotheses on the two models of the unconscious seem to me impossible to invalidate directly for the time being. They are for the moment proposals of frameworks of intelligibility. On the other hand, Husserl's hypothesis concerning the existence of a passive memory (retention), seems to me more central. It is widely confirmed by the effects of its disappearance, as shown by the effects of all degenerative diseases like Alzheimers, where this function is no longer ensured. We involuntarily and constantly memorize everything we live, but not the totality of what we live, and the involuntary character of this process explains that I do not know everything that has been memorized in me. This raises the methodological question of the awakening of such retentions, which is always possible in principle. All studies on concrete memory, affective memory, autobiographical memory, and contextual memory, show that memories which appear to the subject as unknown (but are nevertheless recognized) may emerge. It would be foolish not to try to exploit this possibility on the basis of an *a priori* (and very unscientific) dismissal of it.

Before concluding that only one method is possible or better than any other, or that it is sacrilegious to proceed differently from what one advocates, it would be interesting to develop all possible methodological inventions, all mixed patchworks (video and interview, DES and EI, etc.), while focusing on their consistency with the object of study, the research question. The correct way forward can only be found by adopting approaches which are well-suited to their objects and produce fruitful results. The methodological anarchy seems to me beneficial, insofar as the rigour of a research project is a goal, a result, but one that cannot be established with certainty from the outset. Just as one cannot decide to paint 'a beautiful painting', by doing whatever has to be done from the outset (at best it will be well done!), one cannot decide to do rigorous research by deciding to do everything that is necessary from the outset (at most, it will get back to the huge stack of well done but uninteresting research).

Research is creation, multiple resummptions, slow adjustments, and it is pointless and even counterproductive not to allow oneself all possibilities (except for those who do not respect the ethical criteria). The identification of skills criteria for interviewers can wait, and I think it is typically a 'wrong good idea'. But the article by Froese, Gould and Seth has at least the merit of raising a debate which has until now been rather closed and sterile.

References

- Ancillotti, J.-P. and Morel, M. (1994) A la recherche de la solution perdue. Paris: GREX, Collection Protocole n° 4.
- Cahour, B., Brassac, C. *et al.* (2007) Etude de l'expérience du sujet pour l'évaluation de nouvelles technologies: l'exemple d'une communication médiée, *Revue d'Anthropologie des connaissances*, **1**, pp. 1–26.
- Gouju J.-L., Vermersch, P. *et al.* (2007) A psycho-phenomenological approach to sport psychology : the presence of the opponents in hurdle races, *Applied Sport Psychology*, **19** (2), pp. 173–86.
- Guillaume, P. (1948) *Manuel de psychologie*. Paris: PUF.
- Husserl, E. (2001) *Analyses Concerning Passive and Active Synthesis, Lectures On Transcendental Logic*. London: Kluwer.
- Loftus, E. (1979) *Eyewitness Testimony*. Cambridge, MA: Harvard University Press.
- Loftus, E. and Ketcham, K (1991) *Witness for the Defense the Accused, the Eyewitness, and the Expert who puts Memory on Trial*. New York: St. Martin's Press.
- Maurel, M. (2009) The explicitation interview : examples and applications, *Journal of Consciousness Studies*, **16** (10–12), pp. 58–89.
- Mouchet, A. (2005) Subjectivity in the articulation between strategy and tactics in team sports: an example in rugby, *Italian Journal of Sport Sciences*, **12** (1), pp. 24–33.
- Nisbett, R.E. and Wilson, T.D. (1977) Telling more than we can know: verbal reports on mental processes, *Psychological Review*, **84** (3), pp. 231–59.
- Petitmengin, C. (2001) *L'expérience intuitive*. Paris: L'Harmattan.
- Piaget, J. and Inhelder, B. (1968) *Mémoire et intelligence*. Paris: PUF.
- Schotte, J.-C. (1997) *La raison éclatée: pour une dissection de la connaissance*. Paris: DeBoeck.
- Shacter, D.L. (Ed.) (1997) *Memory Distorsion: How Minds, Brains, and Societies Reconstruct the Past*. Cambridge, MA: Harvard University Press.