

Consciousness and Memory

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This article introduces the concept of retroawareness—which refers to the veridical nonperceptual occurrent awareness of something about a particular past event or state of affairs. The first major section considers various features of this new concept and the concept of reporting the past. The second major section discusses what it is for a retroawareness to be a conscious as opposed to an unconscious mental occurrence. This discussion requires that kinds of unconsciousness, including the Freudian kind, receive some attention. The third major section examines the relation of retroawareness to remembering, with special reference to Tulving's recent discussion of autooetic consciousness. The final section addresses some objections and qualifications of views already appearing in the article.

Two months ago the Berlin Philharmonic Orchestra gave here a concert which I attended. I remember well riding to the auditorium, walking from the curb to one of the front entrance doors, and passing the controls. Since there was a large crowd in the auditorium when we arrived we had to search for empty seats. Soon after we had found accommodations the concert began. I remember the musicians and the acrobatics of the tall conductor. The opening number of the program was new to me; the next one I had heard before; with the third I was quite familiar. The encore I recognized with its first brassy opening chord as the Overture to the *Meistersinger* Certainly there is nothing unusual or remarkable in this account; but its triviality also guarantees that it is true to type. (Straus, 1970, pp. 48-49)

A characteristic form of human behavior is deliberately to inform other people concerning a particular event that transpired or a particular state of affairs that existed at some point prior to one's reporting about it. When I speak of reporting (about) the past in the present article, I mean behavior that falls under that description. However, not all behavior that falls under that description is an instance of reporting the past. Later in this introduction, I consider certain verbal behavior of a tourist guide or a museum guide that fits the description but is not a case of reporting the past. There are, of course, innumerable instances of reporting the past from which to select examples. For now, let the following two examples suffice: a psychologist reports to scientific colleagues concerning the main events of a conference on the study of consciousness in which the psychologist was privileged to participate (e.g.,

Puccetti and Klein, 1980). A university professor relates to a class of students the unfamiliar sequence of events constituting how William James came to write his *magnum opus* (Feinstein, 1984). In such ways, people exhibit their knowledge of certain past states of affairs and events (actually, in the two examples, a developing sequence of them) and, at the same time, show the present occurrence within them—in their brain—of happenings that I call retrowarenesses, or instances of retrowareness. I propose, *inter alia*, that one or more conscious retrowarenesses transpire in a person each time the person issues an affirmative report about the past. It is advisable to mention at once two important qualifications: (a) I do not mean to suggest that retrowareness is only evoked when one wants to report the past; that is, retrowarenesses also arrive unbidden (cf. Gross, 1985; Mandler, 1985a, pp. 94–95; Mandler, 1985b, pp. 467–468; Pillemer, 1984, pp. 77–78; Reiff and Scheerer, 1959, p. 31). (b) Some perceptual reports are reports about the past simply because that of which one is now perceptually aware has ceased to exist (see below).

I return to my claim about retrowareness and reporting the past shortly, after I make some preliminary remarks on the concept of retrowareness that I am here introducing. As a start, retrowareness may be defined as the present occurrent nonperceptual awareness of past states of affairs or events. Accordingly, I use the term *retrowareness* to refer to a very large category of mental occurrences that, in previous articles (Natsoulas, 1978a, 1978c, 1983a), I implicitly subsumed under the concept of consciousness₃ or awareness. See especially my discussion of consciousness₃ in an article in this journal (Natsoulas, 1983c, pp. 29–35), a discussion that I do not attempt to summarize here. In turn, the category of retrowareness includes a number of subcategories of mental occurrences that some psychologists have pointedly distinguished. For example, James (1890/1981) stated that Paul “remembers” his thoughts from the evening before, whereas Peter, whom Paul informed about them when they occurred, can only “conceive” them. Although James may be correct that the two men now have a different kind of awareness of Paul’s past thoughts, their present awarenesses of those thoughts, in both their cases, qualify as retrowarenesses by my definition. That is, one need not perceive or otherwise observe or be directly aware of the states of affairs or events that one is later retroware of, although if one has done so, one’s retrowarenesses may be of a distinct kind. Reiff and Scheerer (1959, p. 26) also distinguished, in effect, between categories of retrowareness in my sense. “Remembrances” and their first two categories of “*memoria*” are all retrowarenesses. Reiff and Scheerer called them all memories, but *memory* is a word with too many meanings to be useful for my purposes. I suggest that the concept of retrowareness is a useful central building block for bringing conceptual order to the currently reemerging psychological discussion of memory as a phenomenon of consciousness (e.g., Brewer and Pani, 1983; Lorenz and Neisser, 1985; Nigro and Neisser, 1983; Rubin and Kozin, 1984; Tulving, 1985).

I must acknowledge that there is a problem of intentionality that pertains to retrowareness, no less than it does to the other subcategories of consciousness or awareness (Natsoulas, 1981, pp. 137-140; 145-148). However, I do nothing in this article to advance this fundamental problem, other than to acknowledge it at this point: conditions, events, or processes immediately preceding a retrowareness cause the retrowareness to occur; yet each retrowareness has a special relation to a particular state of affairs or event that is not among its present causes. In fact, the most immediate cause of a retrowareness may be a brain occurrence of which the subject is not aware. Nevertheless, as Gibson (1979, p. 239) stated about perceptual experience, retrowareness is "awareness-of". Therefore, expressing the basic problem, a psychologist who is uneasy about consciousness in general may well ask, "How can a present mental occurrence, said actually to be a brain occurrence, 'jump back' to a past state of affairs or event, and be an awareness of it?" Of course, the same problem has often arisen with regard to perceiving the external world or one's body outside the nervous system. Many authors have asked questions such as: "How can a visual awareness be of, for example, the sun itself which is located well outside the occurrence that is one's seeing of it?" (e.g., Köhler, 1966, p. 75; see Natsoulas, 1977b, 1983e, 1984c, for discussion of the problem of perceptual aboutness). In passing, Metzger (1974) mentioned that some authors felt it necessary to postulate "a direct, extrasensory connection between the two ends of the chain" (p. 58). And Russell (1927) stated, "We cannot suppose that, at the end of the process, the last effect [i.e., seeing the sun] suddenly jumps back to the starting-point [i.e., the sun], like a stretched rope when it snaps" (p. 336; cf. Straus, 1970, p. 60). To the question concerning how a present awareness can be about a past state of affairs or event, the following partial and inadequate answer is commonly given: "The person (his or her brain) was modified in the past—in many instances by perceptual exposure to the respective state of affairs or event itself—in such a way that makes possible the present retrowareness of that state of affairs or event." Immediately, psychologists will recognize that this answer requires a great deal of explanation of which very much is still unavailable. My plan is to return to a discussion of the intentionality of retrowareness in a subsequent article.

The reader may already be thinking of retrowareness in a way that should be resisted for theoretical purposes. It is natural to think of such occurrences as being, so to speak, awarenesses in the past tense. These are intersecting categories: (a) Some retrowarenesses are awarenesses in the past tense. An example is the passing thought that I just had to the effect that the American Psychological Association elected John B. Watson their president when he was only 36 years of age. Having this thought, I was occurrently aware of Watson's election as having taken place in the past. However, by definition, an awareness qualifies as a retrowareness whether or not one is aware of the past event's

temporal location either specifically, vaguely, or even as in the past. When a person is now occurrently aware of something about a past state of affairs that does not include its pastness, we may speak of atemporal retrowareness. (b) Before I consider atemporal retrowareness further, let me mention that one may also have awareness in the past tense that is not retrowareness. For example, one sometimes seems to be temporally retroware of events that, in fact, never transpired. These apparent events may even seem to have a location in one's own personal history, although they did not take place (cf. Barclay and Wellman, 1986, who used, however, a recognition procedure). Some but not all retrowarenesses are awarenesses in the past tense, and some but not all awarenesses in the past tense are retrowarenesses. Clearly, I am imposing a veridicality requirement for retrowareness, a requirement on which I comment below.

Smith (1966) implied the occurrence of atemporal retrowareness when he described the following three cases:

A man awakes in the morning after a wild night out. Quite dispassionately he contemplates the picture of his friends and himself climbing lamp posts, breaking windows, being apprehended by the police—and suddenly he realises that it all really happened. . . . A composer may be dismayed to hear played on the radio the very melody which he himself had just “composed,” and realise that he *must have been* remembering, not imagining, as he wrote. . . . A friend of mine recently showed surprise at finding a full packet of cigarettes in his pocket. I asked him if he did not remember buying them and he replied that he “supposed he did.” He had been aware, he said, in some way, of having gone into the shop for them, but he had not thought it had really happened. (pp. 19–20)

In Smith's first case, atemporal retrowareness of the events from the night before gave way suddenly to temporal retrowareness of the same events. In the second case, the composer took some of his atemporal retrowarenesses to be melodic outcomes of a creative process going on within him. Probably the third case does not illustrate atemporal retrowareness. Smith's friend was veridically aware of having recently gone into a shop for cigarettes. Evidently, he was not sure that his retrowareness was in fact a retrowareness—as opposed to a merely seeming retrowareness. He did not recognize his temporal retrowareness as such.

Nelson and Gruendel (1981) proposed, in effect, that the young child's present awareness of specific past episodes consists of atemporal retrowareness in the sense that I have defined. They stated,

There is no evidence that the young child who remembers an episode remembers it as having taken place at a particular time in a particular temporal context—that is, that it constitutes an autobiographical memory of the type that older children and adults are able to draw on. Indeed, it seems quite probable that with few exceptions, the latter memories are the product of a further process or processes, involving, on the one hand, the ability to identify novelty within familiar experiences—that is, novel variations. . . . that do not become fused but are remembered as specific events—and, on the other hand, the ability to recount such experiences and thus to share with self and others, establishing the experiences as part of the personal historical account. (p. 149)

To manifest retroawareness of any temporal specificity, the child's original awareness of the episode must be, according to Nelson and Gruendel, the object of certain further mental occurrences; that is, there must take place the kind of direct (reflective) awareness of them that I discuss in the next major section (see also Natsoulas, 1983b, 1985a). Further, Nelson and Gruendel proposed that the younger children's retroawarenesses (or "specific event memories") are unstable, tend not to recur, and are supplanted by awareness of general facts about the world. Consequently, the children may give an account of what normally goes on at breakfast or in the playground without memory for specific breakfasts or play interactions (cf. Watkins and Kerkov, 1985, on "generic memory" in adults).

Recently commenting on the development of consciousness, Tulving (1985) quoted Nelson and Gruendel (1981, p. 149) and expressed a view somewhat like theirs concerning the young child. I believe it is fair to say that, according to Tulving (1985), the young child's stream of consciousness does not contain any retroawarenesses, either temporal or atemporal. In part, I infer this view from Tulving's statements about children and, in part, from his explicit distinction between two "memory systems" that mediate awarenesses with different contents: "Semantic memory—also called generic . . . or categorial memory . . . —has to do with the symbolically representable knowledge that organisms possess about the world. Episodic memory mediates the *remembering* of personally experienced events" (Tulving, 1985, p. 2). In the young child, the episodic memory system is not yet working, and therefore the child does not have retroawarenesses, whether temporal or atemporal. This assumes that the semantic system, on its own, cannot mediate awareness of particular past states of affairs or events. Tulving's (1985) analysis of the relation between consciousness and memory plays a large role in the second half of the present article. There, I take issue with his claim that episodic memory and "autonoetic consciousness" (Tulving's concept) are necessary concomitants of each other. Here, the point is perhaps an even more basic one. Tulving's view differs from Nelson and Gruendel's, since the latter suggested the presence of atemporal retroawarenesses in the young child; although these atemporal retroawarenesses tend to "fade away," they contribute to the development of the child's knowledge of general facts about the world. More recently, Nelson (1984) qualified this view. New studies, which she cited, show young children able to use specific knowledge that they acquired in episodes that transpired months earlier. For example, they can make reports about the past concerning what happened when they (once) went to the circus.

Be that as it may, if a child's occurrent awareness of specific past events and states of affairs consists of atemporal retroawareness entirely, this child would be aware of a past episode in some regard or other but not, even vaguely, its location in time. Of course, the child could be aware of the past episode as

having a temporal structure, an early part followed by a later part; atemporal retrowareness is not atemporal in that sense. But the child's retrowareness would be like those segments of the adult's stream of consciousness that James (1890/1981) refused to count as memories. The stream of consciousness comprises a flow of awarenences (for this interpretation, see Natsoulas, 1985–1986) and includes the same awareness more than once. Needless to add, sameness does not mean exact sameness. As James (1890/1981) wrote, "No state once gone can recur and be identical with what it was before" (p. 224). Even when we are aware more than once of the identical thing in the identical respect, the awareness will differ each time. But even exact sameness, James argued, would not suffice to make a later awareness a memory of the object or content of the awareness's first occurrence. For example, would the second time a person heard a particular clock strike one o'clock be a memory of the first time the person heard it do so, even if the two auditory perceptual awarenences were exactly the same? If one excludes all perceptual awarenences from the category of retrowareness (see further on in this section), James's point still applies. Accordingly, the nonperceptual recurrence of a past perceptual awareness was not a memory for James, no matter how like the perceptual awareness the recurrence might be. Think of a detailed and veridical, hallucinatory reexperiencing of a traumatic situation (Reiff and Scheerer, 1959, p. 40). For James, it did not matter that the experience could not be as it was except for the person's having the original experience.

I am not considering James's position on what does and does not count as memory proper in order to agree or to disagree with him. The point is that he acknowledged the transpiring in the adult's stream of consciousness of something that is less than remembering though like it in objective reference and content. The nonperceptual recurrence of a past perceptual awareness of a state of affairs or event is one kind of retrowareness of that state of affairs or event. Within this kind of retrowareness, there is a subkind that would count as a memory in accordance with James's (1890/1981) explicit definition: "Memory proper . . . is the knowledge of an event or fact, of which meantime we have not been thinking, with the additional consciousness that we have thought or experienced it before" (p. 610). James's memory proper also fits under another kind of retrowareness, according to a footnote that he appended to his definition:

When the past is recalled symbolically, or conceptually only, it is true that no such copy need be there. In no sort of conceptual knowledge is it requisite that definitely resembling images be there (cf. pp. 445ff.). But as all conceptual knowledge stands for intuitive knowledge, and terminates therein, I abstract from this complication, and confine myself to those memories in which the past is directly imaged in the mind, or, as we say, intuitively known. (p. 610)

The other kind of retrowareness is not the recurrence of a perceptual awareness, is not qualitative, and is purely conceptual or symbolic. However, we must be

aware that what we are retroware of is an actual past state of affairs or event if memory proper is to be instantiated, according to James's view. Because James's memory proper is "remembering," I return to his account in the second half of this article. Let me mention now, however, how two authors have reacted to James's definition of memory proper. Recently, Lockhart (1984, p. 133) defended it, claiming that memory would not be conceptually distinguished from other cognitive functions if one omitted the subject's attribution of the property of "pastness" to that of which he or she is aware. When, in contrast, Smith (1966) took issue with this requirement, Smith in effect stated that we take some retrowarenesses to be instances of mere imagining, but they are no less instances of remembering: "If we were to accept James's definition we would have to say of such cases that the remembering commences only when we realize that we are remembering, notwithstanding that nothing else is changed thereby" (pp. 33-34; contrast Malcolm, 1963, pp. 213-214).

Given the behaviorist origins of contemporary psychology, argument is needed for the existence and importance of retrowareness. For this purpose, I turn to the human behavior that I termed characteristic in the first sentence of this introduction: reporting the past. In order affirmatively to report about a state of affairs or event in the past, one must now have retrowareness of it, retrowareness that one takes to be veridical (cf. Smith, 1966, p. 81). Report behavior of all kinds requires that one consult mental states or occurrences. In the case of affirmatively reporting the past, one consults retrowareness. The exception that I discuss at the end of this section is the case of reporting on the basis of perceptual awareness states of affairs or events that have gone out of existence by the time the perceptual awareness occurs. Deliberately informing another person with regard to positive facts about a past situation, one does not simply emit spontaneous behavior (again, I must qualify; see next paragraph). Rather, one chooses to give overt expression to certain particular retrowarenesses of the past episode. After all, whenever we report anything, we are attempting to communicate; there is an audience to consider and getting what we tell them right. Since we are interested in informing rather than misleading, we must discriminate retrowarenesses from awarenesses that are like them though not veridical, and must give affirmative voice only to the former. The latter statement illustrates the usefulness of my veridicality requirement for application of the term *retrowareness*. An awareness that differs from a retrowareness only in veridicality should be given a name that combines the term with an appropriate prefix or adjective. I have already referred to a merely seeming retrowareness in characterizing the third of Smith's (1966) three cases. Perhaps a present awareness of a past state of affairs or event that is close to being veridical should be called a near retrowareness. And a pseudoretrowareness would be an awareness that the subject takes to be of a past state of affairs or event that, in fact, did not exist or take place. A vocabulary needs to be

constructed around *retrowareness* that will allow the efficient control of implications in discussions of consciousness and memory. Given the veridicality requirement, it may be objected that atemporal retrowareness fails to qualify because one does not place, thereby, the past state of affairs or event in the past. However, retrowareness need not be complete in order to be veridical; awareness of a single fact about a past state of affairs or event, when this awareness is nonperceptual, qualifies as a retrowareness.

After the latter important digression, let me return to the topic of reporting the past. The process of affirmatively reporting about a past state of affairs or event may take place quickly and without one's taking notice of the fact that one has consulted a retrowareness. For example, when someone asks you during lunch how you spent the morning, you may produce an answer as though automatically, without thought. However, must this be illusory? Could you not have produced your answer without consulting a retrowareness or any mental occurrence? Indeed, a meaningful, responsive utterance under the control of a heard question often does get emitted spontaneously. That is, hearing a question is an entry into a system of potential utterances, some of which may consequently find unpremeditated, though rule-governed overt expression (Aune, 1965, 1967; Sellars, 1963, 1968-1969, 1976; see Natsoulas, 1978c, pp. 157-158). And often we are in a position to produce more than a single utterance in this way. Think, for example, of a tourist guide or a museum guide who has a well-rehearsed body of remarks descriptive of past states of affairs and events to reel off in response to a question or at predetermined points on the tour. Although an audience will acquire knowledge concerning past states of affairs, the guide's behavior may be automatic after a point. While the guide thinks of other matters, such as what he or she will do after work, his or her verbal behavior may go forward spontaneously albeit mechanically. As Russell (1921) stated "A gramophone, by the help of suitable records, might relate to us the incidents of its past; and people are not so different from gramophones as they like to believe" (p. 166). I do not suggest that the guide's verbal behavior is involuntary, for he or she may choose whether to emit it, depending on the specifics of the question, on whether the audience has properly gathered round, and so on. However, once a mechanical performance begins, the well-practiced utterances qualify at most as overt retrowarenesses rather than reports about the past. Each behavior is evoked by the events preceding it, the guide exercising no further choice beyond the initial one to describe certain past events. Of course, the guide may choose to stop his or her presentation, but this has nothing to do with whether what the guide is saying succeeds in expressing relevant retrowarenesses. If we made our criterion for reporting the past the mere fact that the speaker is deliberately informing other people about the past, we would have to include speakers who used a language that they did not know, although they knew the sounds they uttered would be

understood correctly as descriptive of past states of affairs and events.

The process by which we make reports to others about the past is analogous to the process of perceptual reporting (Natsoulas, 1985a, pp. 336-337). Perceptual reporting involves perceptual awareness of the environment or of one's body; but it requires more, including a further kind of consciousness, a direct (reflective) consciousness. Reporting is a voluntary activity and, as Marcel (1983) properly stated, "Apart from 'reflex' activity, a percept has to be conscious if we are voluntarily to undertake one action as opposed to another *on its basis*" (p. 240). The phrase that I just italicized is crucial. It does not merely mean that the perceptual awareness causes or influences an action. Whenever an unconscious perceptual awareness affects an action (e.g., a guess that one makes; cf. "blind-sight": Weiskrantz, Warrington, Sanders, and Marshall, 1974), the behavior is not "based" on that perceptual awareness. Behavior affected by a perceptual awareness need not involve one's taking the awareness into account or even being aware of the perceptual awareness's occurrence. In contrast, a perceptual report about something that one is perceiving (or has just this instant perceived) requires noting the occurrence of one or more of a particular set of perceptual awarenesses. Absent one's noting any perceptual awarenesses of an event though they occurred, it would be for one as though one had not perceived anything about the event and the event had not taken place (Natsoulas, 1982, pp. 85-86; Natsoulas, 1985a, pp. 335-337). Perceptual awareness can influence behavior; one may well be aware of the behavior; but without consciousness of one's perceptual awareness, the latter cannot be a "basis" for voluntary activity.

We must be aware of our perceptual awarenesses in order to behave, as we do, in ways that take them into account. Analogously, if one had no retrowareness of a past state of affairs or event, one would not have a basis for affirmatively reporting anything about the past state of affairs or event. There would be, in the stream of consciousness, nothing pertinent to consult (cf. Tulving's, 1985, patient N.N.), whereas the reporting process is evaluational, as regards *what one apprehends* concerning that which is to be overtly characterized for another person's cognitive benefit. Someone may object, "Could one not consult the spontaneous utterances mentioned in the recent examples"? Following Sellars (e.g., 1963), I consider such utterances about the past to be retrowarenesses-out-loud or overt behavioral retrowarenesses (Natsoulas, 1977b, 1978c). Thus, I am qualifying my earlier statement to the effect that all retrowarenesses transpire in the brain. Consulting a spontaneous utterance, one may recognize it as true and, now, issue a report that says the same thing. One chooses to report what one is retroware of; and one may have to decide that one's particular retrowareness is not a matter of merely thinking that such and such is the case or an instance of imagining. In reporting the past, we often do not pass through a phase of doubt. This should not obscure the fact of our having

retrowarenesses whenever we issue true affirmative reports about the past; consulting a retrowareness involves being conscious of it but need not take place self-consciously, as it were (cf. Rosenthal, 1980, p. 311). Becoming conscious of one or more retrowarenesses, the person has a *basis* for reporting affirmatively about the state of affairs or event of which they make one aware, since one is aware of being aware of it, as opposed to merely being aware of it. Without retrowareness, or with retrowareness of which one was not conscious, one would be choosing to emit affirmative utterances about the past without a basis; that is, one would be unaware of being aware of anything positive about the past. One reports a positive fact about the past on the *grounds* that one is retroware of that fact as having obtained (cf. Smith, 1966, p. 81).¹

If retrowareness is defined as a present mental occurrence that is veridically about something that existed or took place at an earlier point in time, the following kind of critical question is likely to arise:

Given this definition of retrowareness, would not many perceptual awareneses qualify as such? Are not at least some perceptual awareneses also retrowareneses? When one sees a distant, already extinguished star, is one not aware of a past state of affairs? When one sees Charlie Chaplin in a film, is one not therein retroware of him? Does one not mentally apprehend a fact that was the case when one hears lightning?

All awareneses to which I want to refer under my concept of retrowareness are nonperceptual. It would not clarify discussion of consciousness and memory if, using *retrowareness*, my statements had to apply as well to certain ordinary perceptual awareneses. Retrowareness proceeds, in Gibson's phrase, "without the constraints of the stimulus flux." Gibson (1979) applied this phrase in describing three categories of "nonperceptual awareness." These were all produced by an activity of the visual system that Gibson called visualizing (cf. Gibson, 1974; Shepard, 1984.) One of these categories is a kind of remembering, namely, "an awareness of surfaces that have ceased to exist or events that will not recur, such as items in the story of one's life" (p. 255). As I have indicated and will return to, there are useful distinctions to make among kinds of retrowareness. Here my point is a different one: Although past stimulation makes retrowareneses possible and present stimulation often causes particular retrowareneses to occur here and now, retrowareness does not have as its object a state of affairs or event in the causal chain producing the present stimulation. The influence of the past state of affairs or event (that the present retrowareness is about) is not now stimulatory, though states of affairs often

¹The above discussion has not taken fully into account the kind of reporting the past that consists of one or more negative true statements concerning a past state of affairs or event. Among other ways, such statements are issued on the basis of nonveridical awareness of a past state of affairs or event that one recognizes to be nonveridical. See the fourth part of the final section of the present article (cf. Broad, 1925, pp. 244-245).

modify one's brain by, for example, reflecting light into one's eyes, and one can consequently be retroware of them later.

Conscious and Unconscious Retrowareness

In being retroware, one mentally apprehends a past state of affairs or event either qualitatively or purely conceptually (for this distinction, see next subsection). Thus, retrowareness is a species of someone's being conscious in the "transitive" sense that Malcolm (1984) recently addressed. As I stated above, retrowareness is a subcategory of my consciousness₃ (Natsoulas, 1978a, 1983a, 1983c). And it fits as well under Husserl's (1900/1970) third concept of consciousness: "Consciousness [is] a comprehensive designation for 'mental acts,' or 'intentional experiences,' of all sorts" (p. 535). Husserl began a chapter entitled "Consciousness as Intentional Experience" with the following words:

We must now embark upon a fuller analytic discussion of our third concept of consciousness, which ranges over the same phenomenological field as the concept of "mental act." In connection with this, talk of conscious contents, talk in particular concerning contents of presentations, judgements etc., gains a variety of meanings, which it is all-important to sort out and to subject to the sharpest scrutiny. (p. 552)

By including retrowareness under consciousness₃, I do not imply that whenever retrowareness occurs, it occurs consciously as opposed to unconsciously. In my view, unconscious retrowarenesses do take place, as do unconscious instances of other mental occurrences. However, I do not say that there are unconscious instances of all mental occurrences. I have previously discussed reflective seeing (Natsoulas, 1985a). This is a kind of seeing wherein we are aware of how the environment or our body is visually appearing to us. To this extent, reflective seeing is a necessarily conscious kind of seeing. At the very end of the present major section, I introduce a category of reflective retrowareness, which is analogous to reflective seeing. The present section has as its purpose to discuss how retrowareness partakes of consciousness beyond one's simply being aware of a past state of affairs or event. I have in mind direct (reflective) consciousness (Natsoulas, 1978c, 1983b, 1985a), which Ebbinghaus also had in mind in the quotation just below. Accordingly, I speak of reflectively conscious retrowareness and reflectively unconscious retrowareness.

Tulving (1985) would say that retrowareness is an "internally experienced outcome" of "noetic consciousness," which is "the particular capability of living systems" that allows one "to be aware of, and to cognitively operate on, objects and events, and relations among objects and events, in the absence of those objects and events" (p. 5). Does "cognitively operating" require awareness of absent objects to be conscious? Tulving's inclusion, under noetic consciousness, of a certain group of cases that Ebbinghaus (1885/1913) had identified suggests a positive answer:

Often, even after years, mental states once present in consciousness return to it with apparent spontaneity and without any act of will; that is, they are reproduced *involuntarily*. Here, also in the majority of cases we at once recognise the returned mental state as one that has already been experienced; that is, we remember it. Under certain conditions, however, this accompanying consciousness is lacking, and we know only indirectly that the "now" must be identical with the "then." (p. 2)

The next major section discusses consciousness and remembering, and especially Tulving's view of the relation between them. Here, the quotation from Ebbinghaus is useful for its suggestion that all members of his group of cases involve more consciousness than mere retrowareness, more consciousness than the mere occurrence of a "mental act" (Husserl, 1900/1970) directed on a past state of affairs or event in the environment. Whereas one may or may not recognize a mental state as returned, still one is aware, in either case, of its present occurrence. As for Sigmund Freud (see below) so apparently for Ebbinghaus (and Tulving?): in any mental state's "return to consciousness," a more or less knowledgeable accompanying self-consciousness is always involved. In my view, in contrast, a mental state's "return" may consist of only its inclusion once more in the stream of consciousness; one need not be aware of it.

A Different Distinction

Before proceeding with discussion of conscious and unconscious retrowareness, let me give brief attention to a different distinction within the category of retrowareness, namely, the distinction between qualitative retrowarenesses and purely conceptual ones. One can draw this distinction within some groups of retrowarenesses that consist of either conscious or unconscious members. I say some groups because, if Freud was right, one cannot divide unconscious retrowarenesses in this way. In his view, they are not conscious because they are not qualitative (Natsoulas, 1984a, 1985b). I shall explain, though here are some relevant quotations from Freud's writing at different points in his career:

Consciousness gives us what are called *qualities*—sensations which are *different* in a great multiplicity of ways and whose *difference* is distinguished according to its relation with the external world. (Freud, 1895/1964, p. 308)

Consciousness. . . we look upon in the light of a sense organ for the apprehension of psychical qualities. (Freud, 1900/1953, p. 574)

Thought-processes, i.e., those acts of cathexis which are comparatively remote from perception, are in themselves without quality and unconscious. (Freud, 1915/1957, p. 202)

Despite several contrary indications, I may have given the impression that all retrowarenesses are "experiences" (i.e., that all have "qualitative content": Natsoulas, 1974, 1978b). Some retrowarenesses are indeed "experiential"; when

one is qualitatively retroware, it is as though the past state of affairs or event *appears* to one in some part or degree. In James's (1890/1981) view, some instances of memory proper are a kind of recurrence of a past perceptual awareness. These instances would be the qualitative ones, whereas others are purely conceptual or symbolic, by James's description that I have already quoted above. I would say that one's retrowarenesses of a past state of affairs or event may be purely propositional. In such cases, one does not have a present (imaginal) experience of the past state of affairs or event. One simply has the mere thought that a certain particular something was the case. However, purely conceptual or propositional retrowarenesses are no less present awarenesses of past states of affairs or events than qualitative retrowarenesses.

I am addressing a distinction different from the frequently addressed distinction between pictorial and linguistic forms of representation. Accordingly, propositional awarenesses may be linguistic or nonlinguistic, and linguistic awarenesses may be qualitative or nonqualitative. An example of linguistic awareness that is qualitative is the case of "hearing" oneself, with the mind's ear, asserting a fact about a past state of affairs or event. Propositional awarenesses that are nonlinguistic fall under the category of "nonverbal, 'imageless' thoughts" on Shepard's (1984, p. 435) activation continuum of the perceptual/representational system. According to Shepard, such thoughts transpire when this system is activated at only the highest hierarchical level of "resonant modes." The subject is then aware of certain properties of an object, situation, or event abstractly represented. I would say that the subject is aware of these properties in a nonperceptual, nonqualitative, and nonbehavioral manner. I return to purely conceptual nonlinguistic retrowarenesses in the second part of the last major section of this article. I need also to mention, here, purely conceptual linguistic retrowareness, distinguishing it from the same kind of retrowareness that is nonlinguistic. For ease of expression, let me call the former verbal retrowareness. Such retrowareness is comprised of overt, covert, or incipient verbal utterances to the effect that something was the case (see Natsoulas, 1978c, pp. 167-168, for some discussion of incipient verbal utterances; Segal, 1977). Of course, verbal retrowarenesses are also propositional, but they differ from the corresponding nonlinguistic kind by virtue of their behavioral involvement. Insofar as the museum guide's verbal behavior about the past is not reporting the past, it qualifies as verbal retrowareness (cf. first part of final section below).

A further qualification of the qualitative-propositional distinction is that all retrowarenesses (and all awarenesses) are propositional even when they are qualitative. That is, all retrowarenesses involve the exercise of concepts or categories; they bring a past state of affairs or event under a concept. One is never aware of anything without conceptually apprehending it as something or as having one or more particular properties. James (1890/1981) argued that all

constituents of the stream of consciousness are awarenesses in this sense (Natsoulas, 1985–1986). He stated, “Consciousness from our natal day, is a teeming multiplicity of objects and relations, and what we call sensations are results of discriminative attention, pushed often to a very high degree” (p. 219; see Natsoulas, in press). Those components of James’s stream that we ordinarily call feelings are awarenesses equally as much as perceptual experiences and thoughts are. A feeling is a kind of qualitative awareness of our body or of something in our body; it even may be an awareness of something in the environment. Experiencing the latter feelingly, we are aware of something about it. Qualitative or not, a retrowareness must have propositional content in the sense that one is retroware of *something about something* if one is retroware at all. Qualitatively retroware now of something that happened or was the case, one’s present experience is not simply analogous to a picture, for example, or to a piece of speech. Rather, one has awareness now of that which is thereby “pictured” or “heard;” one is aware imaginally of something that was the case, something about it.

Three Categories of Unconsciousness

Among the constituents of the stream of consciousness, in my view, are unconscious retrowarenesses. The stream of consciousness does not consist entirely of mental occurrences that are conscious. Some of them are unconscious, though not in Freud’s topographical sense, nor in the sense that an organism may be unconscious; in the sense, rather, that the individual (whose stream of consciousness it is) is not directly (reflectively) aware of those constituents of the stream when they occur. I shall say that some parts of the stream are reflectively unconscious, although they have the potential, being part of the stream, to be conscious occurrences when they subsequently transpire. To some readers, this statement may seem paradoxical: How could an awareness be unconscious? (Cf. Arnold’s, 1984, pp. 8–9, understanding of consciousness as necessarily involving a reflective dimension). How can an unconscious retrowareness be considered a part of the stream of consciousness? (Cf. Freud, 1923/1961, p. 16: “A consciousness of which one knows nothing seems to me a good deal more absurd than something mental that is unconscious.”) A retrowareness, like any awareness, is an instance of someone’s being conscious of something. How could a consciousness be an unconsciousness? As Sartre (1943/1966) stated,

The necessary and sufficient condition for a knowing consciousness to be knowledge of its object, is that it be consciousness of itself as being that knowledge. This is a necessary condition, for if my consciousness were not consciousness of being consciousness of the table, it would then be consciousness of that table without consciousness of being so. In other words, it would be a consciousness ignorant of itself, an unconscious—which is

absurd. This is a sufficient condition, for my being conscious of being conscious of that table suffices in fact for me to be conscious of it. That is of course not sufficient to permit me to affirm that this table exists in *itself*—but rather that it exists *for me*. (p. 11; however, see Danto, 1975, p. 59, and Rosenberg, 1981, p. 258, for counterargument)

Although my statement that some parts of the stream of consciousness are reflectively unconscious may not be reconcilable with Freud's theory of consciousness (Natsoulas, 1984a, 1984b), the matter can be usefully cleared up with reference to his theory. I shall distinguish three categories of unconsciousness, of which two are clearly Freudian. My discussion shall pertain only to occurrent unconsciousness. Whatever is mental and latent, in the sense of not taking place now, does not thereby count as unconscious in any of the senses that I shall consider.

Reflectively unconscious retrowareness. Psychological processes that are not reflectively conscious can only occur, according to Freud, outside the perception-consciousness system; if a retrowareness occurs within this system, the person must be directly (reflectively) aware of its occurrence. As I stated in a previous article,

Freud [1915/1957] emphasized the idea that psychological processes cannot be conscious unless the person whose processes they are knows of their occurrence when they occur: "A consciousness of which its possessor knows nothing is something very different from a consciousness belonging to another person, and it is questionable whether such a consciousness, lacking, as it does, its most important characteristic, deserves any discussion at all" (p. 170). That is, a consciousness of which its possessor knows nothing when it occurs cannot really qualify as a consciousness; it deserves discussion, but not discussion in terms of its being a consciousness. (Natsoulas, 1984a, pp. 207–208)

In contrast to Freud's view, my view allows the young child and the adult who, at the moment, is totally unconcerned with his or her stream of consciousness to undergo the qualitative retrowarenesses that Freud placed in the perception-consciousness system. That is, a qualitative retrowareness and other mental occurrences that transpire in the latter system may do so without the individual's being aware of them. I do not assume, as Freud did (see below), that all reflectively unconscious retrowarenesses require a conscious stand-in in order for them to "become-conscious." Some can, themselves, literally be reflectively conscious.

Freud's concept of direct (reflective) consciousness is a self-intimational one, in the sense that any conscious psychological process is conscious by its own intrinsic nature; nothing needs to be added to it in order for it to be reflectively conscious (except, Freud, 1925/1961, p. 231, held that the activity of the entire perception-consciousness system would cease if the system did not receive a quantity of charge (cathexis) from the rest of the psychological apparatus). If one holds as I do (see below)—that for many retrowarenesses, being reflectively conscious of them depends on a further (though noninferential) awareness that

may or may not take place, then the presence of a retrowareness in the stream of consciousness does not necessarily mean that one is reflectively conscious of it. Yet I do accept the following one of Freud's theses: only those mental occurrences that are part of the stream of consciousness can be reflectively conscious; though I cannot confidently assume that a person has only a single stream of consciousness (see Bogen, 1969, 1981; Landis, Graves, and Goodglass, 1981; Puccetti, 1973, 1975, 1976, 1977, 1981a, 1981b, 1982). Accepting Freud's thesis is also to admit the existence of mental occurrences of which there cannot ever be direct (reflective) awareness. A materialist position on the mind-body problem (e.g., Natsoulas 1974, 1978b, 1984b) is highly compatible with this thesis. How mental processes are distributed in the brain is an empirical question that cannot be decided on the basis of how it seems to one. Why should only brain-occurrences of which one is aware count as mental? Also, Freud may be correct about how a subject can know that a permanently unconscious mental process is taking place here and now and having effects (see below). But to have this knowledge in the way Freud proposed is not to be directly (reflectively) aware of, say, the respective retrowareness. I return shortly to how one is directly (reflectively) aware of a retrowareness.

Descriptively unconscious retrowareness. From Freud's perspective, one way to distinguish descriptively unconscious retrowareness is in terms of its taking place outside the perception-consciousness system, that is, in another part or other parts of the psychical apparatus. The stream of consciousness consists of no more or less than all the psychical processes that have transpired, are transpiring, and will transpire in the perception-consciousness system. Therefore, the stream of consciousness does not include, according to Freud, any of the descriptively conscious retrowarenesses. A further point about the latter, as well as about all descriptively unconscious psychical processes, is that they do not constitute a "second consciousness." In this regard, Freud's view stands in some contrast to that of James (1890/1981), who held that dissociated awarenesses are

parts of *secondary personal selves*. These selves are for the most part very stupid and contracted, and are cut off at ordinary times from communication with the regular and normal self of the individual; but still they form conscious unities, have continuous memories, speak, write, invent distinct names for themselves, or adopt names that are suggested; and, in short, are entirely worthy of the title of secondary personalities which is now commonly given them. (p. 222)

James was referring in this context only to abnormal persons or persons undergoing abnormal conditions. However, he did believe, as Freud did not, that "the same brain may subserve many conscious selves, either alternating or coexisting" (James, 1890/1981, p. 379; cf. Laplanche and Pontalis, 1967/1973, pp. 427-429, on "the splitting of the ego", as well as Fingarette, 1969, Chapter 6). A

descriptively unconscious retrowareness could not be "a consciousness" (i.e., a reflectively conscious occurrence; see above quotation from Freud, 1915/1957, p. 170), as it would be if, *per impossibile*, it were part of the stream of consciousness. Thus, in Freud's view, reflective and descriptive unconsciousness coincide exactly: any descriptively unconscious retrowareness cannot be reflectively conscious, since there is no unconscious reflective consciousness. One may have an unconscious thought to the effect that one has, for example, a certain unconscious desire. However, neither the desire nor the thought about it are reflectively conscious (Natsoulas, 1985b, p. 218). For either of them to be reflectively conscious, according to Freud, they would need to have qualities, which only psychological processes in the perception-consciousness system possess. Also, any reflectively unconscious retrowareness must be descriptively unconscious in the sense that I adopted at the start of this paragraph. Namely, it must take place, if it does take place, outside the perception-consciousness system, in a different part of the psychological apparatus.

But surely, someone will protest, descriptively unconscious retrowarenesses are not necessarily defended against. Does this not mean that they may become conscious? Because a descriptively unconscious retrowareness transpires outside the perception-consciousness system, it must activate a "conscious representative" (Natsoulas, 1985b, pp. 191–192) of itself within the perception-consciousness system whenever, if ever, the descriptively unconscious retrowareness "becomes-conscious." Thus, when a descriptively unconscious retrowareness does "become-conscious," it does not become reflectively conscious; rather, it produces a corresponding reflectively conscious retrowareness in the perception-consciousness system. This conscious representative (a) has the same (or similar) conceptual content as the respective descriptively unconscious retrowareness and (b), being reflectively conscious, includes intrinsically, as part of itself, direct (reflective) awareness of its own occurrence. As I previously mentioned, the latter was Freud's basic conception of direct (reflective) consciousness; and a view similar to Freud's belonged to his teacher Brentano (1911/1973). Brentano held that mental acts without exception individually include apprehension each of its own occurrence (cf. Helminiak, 1984; Natsoulas, 1986a). Freud followed Brentano in this regard only with reference to those psychological processes that transpire "only at one particular point" in the psychological apparatus (Freud, 1938/1964, p. 196). And this "point" does not spread as descriptively unconscious psychological processes "become-conscious." Freud (1923/1961) stated that it would be "unimaginable" for unconscious psychological processes literally to "advance to the surface" that is consciousness, or for consciousness to "make its way to them" (p. 19). Even when it "becomes-conscious," a descriptively unconscious retrowareness remains, during and after, descriptively unconscious. At the moment when it "becomes-conscious," we are consciously occurrently retroware of a past state of affairs or event, but

not in the same way (i.e., nonqualitatively) that we are unconsciously retroware of it.

Dynamically unconscious retrowareness. Of course, dynamically unconscious retrowarenesses would be no more reflectively conscious than the merely descriptively unconscious ones. They, too, occur outside the perception-consciousness system, outside where none of the psychical processes are reflectively conscious. And again, in order for dynamically unconscious retrowarenesses to "become-conscious," they require the service of what amounts to a corresponding reflectively conscious retrowareness. However, dynamically unconscious retrowarenesses "become-conscious" with extreme difficulty, if at all, because of the operations of defense. Even after great efforts involving psychoanalytic psychotherapy, when a dynamically unconscious retrowareness (or wish, or conviction) "becomes-conscious," it does not become reflectively conscious. Perforce, it itself remains far from the stream of consciousness, retaining its status of descriptive unconsciousness. Still, one must infer its occurrence from its effects. When it "becomes-conscious," one may infer its presence from the premise provided by one's direct (reflective) awareness of the conscious representative that is among its effects. Having made such an inference, one's psychical apparatus may be affected in such a way that unconscious (and conscious) thoughts are activated to the effect that one has the particular unconscious retrowareness (or wish, or conviction). One has acquired knowledge of a part of the psychical apparatus to which one lacks direct access. However, such knowledge does not render an unconscious retrowareness (or wish, or conviction) reflectively conscious, since this requires more than knowledge. It requires direct (reflective) awareness.

Direct (Reflective) Awareness

A theory of direct (reflective) awareness is badly needed in psychology (Natsoulas, 1970, 1978c, 1983b, 1985a). Here, I list only a series of points that a psychological theorist would do well to consider in developing an account of this crucial phenomenon. Moreover, each of these points requires a good deal of discussion, which I leave for another occasion, when I will argue the merits of the kind of theory that I am able only to adumbrate in the present article. Before I list my seven points, let me mention a major obstacle that I see to a collective effort among psychologists to develop such a theory, namely, the difficulty that psychologists have in recognizing the phenomenon or set of phenomena that the theory would address. Whereas psychologists recognize that we need to explain how the perceptual systems function to give us awareness of the environment and our body, they have difficulty with the notion that such an explanation would not suffice as an account of conscious awareness. Elsewhere (Natsoulas, 1982), I suggested that this difficulty is a

consequence of psychologists' explicit or implicit concept of awareness as relational. Awareness is supposed to be a cognitive relation between the one who is aware and that of which he or she is aware (e.g., Burt, 1968, p. 67; cf. Burt, 1962, 1971). The one who is aware is conceived of as actively apprehending the object of his or her awareness, even as "constituting" it. This mental activity makes it difficult to conceive of the subject as being unaware of what he or she is "doing." The short way with this concept of awareness is to reject the assumption that the one who is aware is thereby engaging in some sort of action. Husserl (1900/1970) ran into the same problem because he relied on the concept of a mental act:

In talking of "acts" . . . , we must steer clear of the word's original meaning: *all thought of activity must be rigidly excluded*. [Husserl continued in a footnote as follows.] We are in complete agreement with Natorp . . . when he objects to fully serious talk about "mental activities," or "activities of consciousness," or "activities of the ego," by saying that "consciousness only appears as a doing, and its subject as a doer, because it is often or always accompanied by conation." We too reject the "mythology of activities": we define "acts" as intentional experiences, not as mental activities. (p. 563)

Elsewhere (Natsoulas, 1985c), I have described a point of view on all awareness that treats it as consisting of a kind of action. In being aware of anything, one addresses oneself as though one were another; one is or contains one's own audience, the generalized other (Mead, 1934; cf. Barlow, 1980). However, my presentation of Mead's account of consciousness was expository and not critical. I was critical of it in an earlier, unpublished paper entitled "Awareness" (UCD Psychology Department, 1983).

1. Some reflectively conscious retrowarenesses (but not all of them) are reflectively conscious through evoking distinct, noninferential awareness of themselves. Those retrowarenesses that are reflectively conscious in a different way, I shall call reflective retrowarenesses and come to in my seventh point. A retrowareness of the first group occurs and thereupon, or perhaps in part simultaneously with the retrowareness, the retrowareness produces an awareness that is directed upon it. For example, one first has the thought about Watson's election to the APA presidency and then one has a thought about the first thought. One thinks that the first thought just occurred to one, which it did. The second thought (as well as the first) is not a mental action; it is simply evoked by the first thought, and may or may not be evoked the next time the first thought occurs. Thus, a thought that is reflectively conscious at t_1 may be reflectively unconscious at t_n . One makes such direct (reflective) awarenesses more probable by deliberately adopting a set to take notice of the constituents of one's stream of consciousness. Deciding to read a page of text is somewhat analogous. As a consequence of the decision and its execution, the lines of print will evoke a sequence of thoughts as one proceeds to read them (cf. Mellor,

1977–1978, p. 99). Although the direct (reflective) awareness is distinct and external from its object, its occurrence is not therefore based on inference. The first awareness does not function as a premise. Nothing follows from the fact that Watson was elected president of APA when he was 36 years old as regards one's having that thought (see Natsoulas, 1977a, p. 33). Although the direct (reflective) awareness is highly conceptual and very much influenced by one's general understanding of the mental, this does not constitute reason to consider it indirect. Are any awarenesses conceptually uncontaminated?

2. Potentially reflectively conscious retrowarenesses (and other mental occurrences that may be reflectively conscious) must possess or involve a predisposing factor that makes it possible for them to serve as immediate causes (i.e., without cognitive mediation) of mental occurrences that respectively refer to them. Even if direct (reflective) awareness is learned, some retrowarenesses must be susceptible to becoming objects of direct (reflective) consciousness while others are not so susceptible. The latter are the permanently reflectively unconscious retrowarenesses. They are Freud's dynamically or descriptively unconscious retrowarenesses. It might be suggested that the difference lies in whether a retrowareness is part of the stream of consciousness, whether it occurs in the perception-consciousness system. If it does, then the predisposing condition is met; the retrowareness may evoke a direct (reflective) awareness of itself; the person can know directly, without inference, that the retrowareness occurred. However, the problem remains: a permanently unconscious retrowareness is part of the same mind as the potentially conscious ones. Why cannot that mind know all its mental processes in the same, direct way? Since reflectively conscious retrowarenesses are conscious by evoking a distinct awareness, one might suggest that the necessary wiring is not there in the case of the permanently reflectively unconscious ones. This might be Churchland's (1985) reply to my question. He wrote of "natural discriminatory mechanisms" that make it possible for us to apply more or less sophisticated learned concepts to (some of?) our mental occurrences (cf. primary introspection in Natsoulas, 1986b). Only some mental occurrences can evoke other awarenesses directed upon them. Of course, that is the question. Which ones can do it, and how do they do it?

3. Therefore, it is understandable that Skinner (e.g., 1945a, 1945b, 1953, 1957, 1969, 1974) tried to reduce all mental life, all of which is potentially reflectively conscious, to the flow of private stimulation (Natsoulas, 1983d, 1985b). He held that direct (reflective) awareness is learned, that it is a matter of verbal operant conditioning. Thus, we learn to label our private events, and this is the only direct access that we may have to them. There is no mental eye that can be trained on our mental life. If something going on within our body does not set the occasion for a verbal operant response to it, then we are not aware of the private event's occurrence (except possibly indirectly, e.g., by

inference from behavior or by instrument). There is much that proceeds inside us of which we are never aware, and much that we can never be aware of because it is not stimulatory or does not give rise to stimuli. It cannot serve, therefore, as the occasion for a verbal operant response that characterizes or identifies it, whatever learning procedure we may be subjected to. According to Skinner, this is true of the entire nervous system; we cannot be directly (reflectively) aware of anything that goes on within it because we do not have "nerves going to the right places," that is, no sensory access to it. The exceptions are activity in sense receptors and incipient responses that take place in the brain. Apparently, these do not have to give rise to stimulation in order to be responded to, or perhaps they do and Skinner has not yet indicated the nature of the stimulation (Natsoulas, 1986b). In this light, it is interesting to note that Freud (1895/1964) considered the stream of consciousness to consist entirely of qualitative episodes, which involve sensations. In his view, such episodes innately contain their own basic reflective consciousness. Consequently, we can learn to describe them on the basis of our primary direct (reflective) consciousness of them, which is impossible with regard to all other psychical processes (Natsoulas, 1984a).

4. I do not assume that retrowarenesses (or any mental occurrences) are exactly as one is reflectively conscious of them to be. After all, direct (reflective) awareness is often a reaction to a mental occurrence, and is external to it though being an awareness of it. I agree with Sellars's (1980) rejection of the *Myth of the Given*, which he stated as follows: "If we are directly aware of an item which in point of fact (i.e., from the standpoint of the 'best explanation') has categorial status C, then one will be aware of it as having categorial status C" (p. 16). We should not assume that direct (reflective) consciousness must be veridical simply because it is direct. In many cases, its directness is only a matter of the absence of inference; it is not a matter of a firm, direct grasp that shapes itself precisely to the object grasped. Positions on direct (reflective) awareness such as Skinner's do not fall into this error, because they assume that this awareness is verbal. Consequently, the awareness could be quite different from what it is and imply a very different nature for the object of awareness. At the same time, it would be foolish to ignore that which direct (reflective) consciousness tells us about our mental life. We certainly do not ignore that which we determine perceptually about the environment, notwithstanding physical science's better account of the same phenomena. Direct (reflective) awareness provides a start for hypothesizing; and it constitutes one reason to think what it "asserts" about a mental occurrence is true.

5. Particularly impressive in this regard is the direct (reflective) consciousness that informs us about the qualitative character of some of our retrowarenesses and other mental occurrences. That we are qualitatively retroware is extremely difficult to doubt: who has not had an experience of remembering

that was somewhat like seeing again what one had previously seen? Given such reflectively conscious retrowareness, a psychologist is more likely to wonder how direct (reflective) awareness takes place, by which the psychologist can tell that he or she was just now qualitatively retroware, than to wonder whether the retrowareness was indeed qualitative. How direct (reflective) consciousness of qualitative retrowareness takes place may be a question impossible to answer from the perspective that treats of direct (reflective) consciousness simply as a distinct, purely conceptual occurrence evoked by the respective retrowareness. If it is a distinct occurrence, must it not bodily include (cf. Husserl's, 1900/1970, p. 576, real [reellen] content) the very qualities that we experience in having the retrowareness itself? Otherwise how do we know these qualities? A mere reaction to the retrowareness may categorize it, but one would not have, thereby, an intimate awareness of these qualities. Though the direct (reflective) awareness is direct in the sense of noninferential, an even greater directness seems to obtain whereby the qualitative content of the retrowareness has "presence" for us (see my discussion of "presence" in the context of Skinner's theory: Natsoulas, 1986b). Compare: consciously experiencing pain does not simply amount to the experiencing combined with a presentiment to the effect that one is so experiencing (Natsoulas, 1983b, pp. 427–431). So too, remembering (consciously) how someone looked on a particular occasion, one's retrowareness is qualitative; having it is somewhat as though the person were again appearing to one visually. How does one tell that this is so about the retrowareness? Clearly, one is not simply aware *that* this is so. One has, it seems, a kind of *internal* access to the retrowareness.

6. I suggest that this internal access consists in reexperiencing the person *as the object of one's experience*; the latter phrase holds the key to how we know that some of our mental occurrences are qualitative. By means of this example and numerous similar examples of reflectively conscious qualitative retrowareness, we come to the concept of "reflective retrowareness" in two more steps. Think of your original visual experience of the state of affairs or event of which you are now qualitatively retroware. When you were in the past situation, you may well have had two kinds of visual experience of the perceived state of affairs or event. One of these was purely objective; that is, you were aware of what was there in a part of the environment and its characteristics (straightforward object-perception). The other kind of visual experience that you had of the state of affairs was subjective; that is, you experienced the particular situation as being perceived by you, as producing a flow of visual appearances. Husserl (1925/1977) described this kind of subjective or reflective visual experience as follows:

If I pass over reflectively in the...natural manner from the straightforward object-perception to the modes of givenness, then they are perceived, noticed in their subjective

existence. But the object itself also continues to be perceived and noticed, although it is not what is exclusively noticed, as when I am directed straightforwardly toward it. What I now grasp is the object as appearing in this or that *how* of its mode of appearance; or, vice-versa, the mode of appearance is preferred as the main theme, but still as mode of appearance of the object which so to speak is still in our grasp and remains in its previously posited actuality. (p. 129; cf. Natsoulas, 1985a, pp. 348-355)

Notice that both of these kinds of experience are visual, rather than the second's being awareness in a different category (introspection). Although straightforward object-perception may or may not be reflectively conscious, what I call reflective seeing is a visual awareness of how a part of the environment is appearing to one.

7. Thus, there is some truth to self-intimational theories of direct (reflective) consciousness. In the case of some mental occurrences, one is aware of having them in having them; one is aware of having them by being aware of the object of experience as such, as the object of experience. Surely this occurs as well in instances of qualitative retrowareness, which I therefore call reflective retrowarenesses. Husserl (1913/1983) had something very much like this in mind when he wrote of "reflection in memory" and stated,

In memory there is at first, perhaps, consciousness of, e.g., the course of a piece of music unmodified reflectively in the mode of the "past." But there belongs to the *essence* of the object of such a consciousness the possibility of reflecting on the having-been-perceived of that object. (p. 178; cf. McKenna, 1982, p. 112)

Otherwise, without reflective retrowareness, we could not tell firsthand that we have qualitative retrowarenesses. We can tell because some of our retrowarenesses are intrinsically of the reflective kind, just as we can tell the visual quality of some of our perceptual awarenesses by means of the occurrence in us of reflective seeing. In reflective seeing, we apprehend visually the flow of appearance-contents that constitute that visual apprehension. In reflective retrowareness, we apprehend qualitatively (though not perceptually) appearance-contents presenting a past state of affairs or event.

Consciousness and Remembering

A contemporary leader in the experimental psychological investigation of human memory recently stated,

Nowhere is the benign neglect of consciousness more conspicuous than in the study of human memory. One can read article after article on memory, or consult book after book, without encountering the term "consciousness." Such a state of affairs must be regarded as rather curious. One might think that memory should have something to do with remembering, and remembering is a conscious experience. To remember an event means to be consciously aware now of something that happened on an earlier occasion. Nevertheless,

through most of its history, including the current heyday of cognitive psychology, the psychological study of memory has largely proceeded without reference to the existence of conscious awareness in remembering. (Tulving, 1985, p. 1)

The psychological literature which pertains to the relation between consciousness and memory differs “by the dearth of both ideas and facts,” Tulving added, from the general literature on consciousness. He presented some of his own ideas on the memory-consciousness relation, which I shall address in this part of the article, making use of the ideas that I have developed to this point. Actually, I already have touched a little on Tulving’s ideas, since they resemble those of two early psychological authors who have entered my discussion. Ebbinghaus (1885/1913) was one of them, and was credited by Tulving as well. As I shall show, James’s (1890/1981) ideas about what he called “memory proper,” “remembering,” or “remembrance” also are rather similar to Tulving’s recent proposals.

Ebbinghaus, James, and Tulving on Remembering

1. Ebbinghaus (1885/1913) briefly wrote of remembering in terms of recognizing a “returned mental state as one that has already been experienced” (p. 2). His examples were “sensations, feelings, ideas” (which I have treated as James did: as occurrent awarenesses and components of the stream of consciousness). Ebbinghaus stated that a subject may fail to recognize a returned mental state as returned, though the subject is reflectively conscious of the state. Failing to recognize it as returned, the subject may yet *infer* that “the ‘now’ must be identical with the ‘then’” (p. 2). Such inferring does not qualify as remembering. To be reflectively conscious of a mental state and to know by inference that it has returned does not amount to remembering. Remembering involves a greater directness, namely, the noninferential recognition of the returned mental state as returned. Thus, Ebbinghaus’s view would seem to be like Wild’s (1969): “The phenomenon shows that memory is . . . the direct recovery of a past experience as past” (p. 172). Also, James (1890/1981) pictured the stream of consciousness as containing awarenesses that “greet” other awarenesses as returned: “The herdsman is . . . the real, present onlooking, remembering, ‘judging thought’, or identifying ‘section’ of the stream. This is what collects,—‘owns’ some of the past facts which it surveys, and disowns the rest” (pp. 320–321). Similarly, Tulving (1985) figuratively described the person as “roaming at will over what has happened as readily as over what might happen” (p. 5) by means of a special capability called “autonoetic (self-knowing) consciousness” (see below).

2. According to James, although each instance of remembering is “one integral pulse of consciousness,” it has a very complex internal structure which includes the following three constituents. (I have already included James’s

qualification of this statement in the form of his footnote to his definition of memory proper; see the first major section of this article.) (a) In my terms, one constituent of James's remembering is a qualitative retrowareness of the state of affairs or event remembered. However rich and detailed it may be, however, retrowareness does not by itself count as remembering. Simply to be veridically, qualitatively, nonperceptually aware of a past state of affairs or event is not necessarily to remember it. (b) "The fact imaged" or object of the qualitative retrowareness involved in a remembrance must be "expressly referred to the past, thought as in the past" (James, 1890/1981, p. 611). (Cf. Brewer and Pani, 1983, p. 7: "The personal memory episode is accompanied by a propositional attitude . . . that 'this episode occurred in the past.'") Some retrowarenesses transpire without involving, or being accompanied by, any reference to the past. Also, even when retrowareness itself does make reference to the past, the person may still believe that the object of retrowareness did not exist or take place. Williamson (1979-1980) suggested that this is "a kind of unconscious memory" on the grounds that the person does not think that the past event occurred, "does not think he remembers it, and knows nothing of the actual events. . . . The example is better cited as a case of forgetting [a past event] than of remembering one" (pp. 25-26). Accordingly, we speak of trying to decide whether we are remembering an event or are merely imagining it as having taken place. James pointed out the contents of these can be much the same. If we decide that we are only imagining an event of which we are retroware, should we not say that we have forgotten it? (c) The retrowareness must be recognized as a mental state "returned" from when what is remembered took place: "I must think that I directly experienced [the latter] occurrence" (James, 1890/1981, p. 612). (Cf. Brewer and Pani, 1983, p. 7: "A personal memory is accompanied by a belief that the remembered episode was personally experienced by the individual.") Thus, James implied that the stream of consciousness may contain not-quite-remembrances, which lack only the feature of being personal. They have reference to the past and are accompanied by the belief that the past state of affairs or event did exist or take place. However, the person does not think he or she originally experienced the state of affairs or event, though the person now has qualitative temporal retrowarenesses of it and takes them as such.

3. For Tulving (1985) remembering was "a conscious experience". He wrote of "the characteristic phenomenal flavor of the experience of remembering" (p. 1). As I understand him, Tulving considered any instance of remembering to be a reflectively conscious occurrence. Accordingly, to remember something has, at its core, a reflectively conscious retrowareness. I believe that nearly all signs point to this retrowareness being, for Tulving, a qualitative retrowareness. This interpretation is consistent with how Tulving (1985) described an amnesic patient: "N.N.'s knowledge of his own past seems to have the same impersonal

experiential quality as his knowledge of the rest of the world" (p. 4). More generally, Warrington (1986) identified amnesic patients as patients who are

quite unable to recall what is happening, what has happened or what is going to happen. Yet, at the same time [they are] able to perform a variety of intelligence tests at a normal level. . . . Verbal vocabulary can be intact, and there have been numerous demonstrations that access to, and retrieval from, systems subserving verbal and visual information can be unimpaired. (p. 6)

Presumably, N.N. could have "autonoetically conscious" occurrent thoughts as regards his date of birth, when his family moved into their present home, where he spent his summers as a teenager, among other things. (Shortly, I shall in effect argue that my use of *autonoetically conscious* in the previous sentence is fundamentally consistent with Tulving's conception, despite his claim that N.N. lacks autonoetic consciousness.) Although N.N. was able to make some true assertions about his past, he was completely unable to remember (in Tulving's sense) any particular event or incident from his life. I take this to mean that N.N.'s stream of consciousness included some reflectively conscious retrowarenesses that were temporal and personal, but that none of them were qualitative. Given Tulving's careful questioning of N.N., N.N. surely would have given signs that he was qualitatively retroware if he was. Only at one point in Tulving's description of N.N. does any question about this arise, when Tulving (1985) wrote, "He knows what the North American continent and the Statue of Liberty look like, and can draw their outlines" (p. 4). Draw their outlines in what sense? Did N.N. have to consult a qualitative retrowareness in order to do this? Also, perhaps N.N. could "hear," with his mind's ear, his voicing a statement about a past state of affairs or event; recall that linguistic retrowarenesses may be qualitative. Surely, however, N.N.'s huge deficiency in remembering had at its core a dearth of qualitative retrowarenesses.

Remembering for Tulving is not any kind of effort to mentally secure facts about the past. Nor is it answering questions correctly about the past or one's own past, which N.N. could do to some extent. An instance of remembering is for Tulving a brief segment of the stream of consciousness that includes, *inter alia*, qualitative retrowareness. Notice the relevance of the veridicality requirement for retrowareness: we speak of falsely remembering or not remembering something when the respective awareness of a past state of affairs or event is not veridical. Actually to remember involves retrowareness, which is veridical. My understanding of Tulving's experience of remembering is based as well on S.S., an amnesic whose awareness of past events had, according to Tulving, "the same impersonal experiential quality" as N.N.'s retrowarenesses. Cermak and O'Connor (1983), who studied S.S.'s memory abilities intensively, found it difficult to express his deficiency of memory for specific events. They tried contrasting the ability to relate a family story about oneself with "truly

remembering" the events that the story recounts. S.S. talked about specific events from his past, but he was unable to "retrieve memories which could truly be considered episodic" (Cermak and O'Connor, 1983, p. 230). They expressed S.S.'s deficiency still better by stating that he recalled "the fact that an event had happened rather than the event itself" (p. 230; cf. Schacter and Tulving, 1982, p. 44). The difference that Cermak and O'Connor were indicating must be between (a) having purely conceptual awarenesses that "assert" certain facts about the event and (b) having qualitative awarenesses by which one reexperiences the event in some part or degree. However, even if S.S. (or N.N.) had responded in a way indicative of qualitative retroawareness, Tulving (1985) would not necessarily have considered him to be remembering. The person must be qualitatively retroaware of the event "as a veridical part of his own existence" (p. 3; cf. Reiff and Scheerer, 1959, p. 25). This corresponds to James's third constituent of remembrance (listed above).

Tulving's Auto-noetic Consciousness

Tulving (1985) did not believe that the young child can remember: "Every young child is an extremely capable learner: her behaviour and experiences can have readily identifiable consequences for her future behaviour and experiences. Yet she need not have any (auto-noetic) conscious awareness as to the origin of these consequences: there need be no remembering" (p. 6). The young child does not remember, in this view, because he or she has not yet developed auto-noetic consciousness, and therefore cannot subjectively place an event in his or her personally experienced history. Thus, the young child is like N.N. and S.S. Tulving (1985) linked together episodic memory and auto-noetic consciousness. Schacter and Tulving (1982) defined episodic memory as involving what amounts to auto-noetic consciousness: "Retrieval of information acquired during a unique learning episode does not constitute, by itself, evidences of episodic memory; autobiographical reference and memory for temporal and spatial context must also be present" (p. 44). Thus, young children are supposed to have neither episodic memory nor auto-noetic consciousness. However, it is not at all clear that Tulving's "hypothesized relation" between episodic memory and auto-noetic consciousness needs to require that these two capabilities be present or absent together at all ages. Someone might argue that auto-noetic consciousness needs instances of episodic memory on which to be directed. But as will be seen, auto-noetic consciousness is not restricted to the products of the episodic memory system.

The young child's stream of consciousness might include qualitative retro-awarenesses without also including auto-noetic consciousness. Qualitative retro-awarenesses would be joint products of the "episodic memory system" and the biological capability of *noetic* consciousness, which is distinct from auto-noetic

consciousness. (Tulving's definition of noetic consciousness appears near the beginning of the second major section of the present article.) The young child who lacked auto-noetic consciousness would not remember an event of which he or she was qualitatively retro-aware, because this child could not be aware of the event as an object of his or her past stream of consciousness. Concerning the lack of auto-noetic consciousness, a stronger statement than Tulving's applies: a child without auto-noetic consciousness could not be reflectively conscious of his or her stream of consciousness *in any part*. All the child's mental life would proceed, from the child's perspective, as though it did not. A young child who possessed auto-noetic consciousness, in the broad sense of being reflectively conscious, but who lacked all qualitative retro-awareness also would not remember, since remembering involves qualitative retro-awareness of a past event. Possessing auto-noetic consciousness, the young child could be directly (reflectively) aware of other occurrences in his or her stream of consciousness. For example, perceptual awareneses would still go on. Only the products of the episodic memory system would be missing from the stream.

Tulving's description of N.N.'s performances gives good reason to interpret his case along the latter lines. My contention is that N.N.'s inability to remember is not a result of N.N.'s deficiency in auto-noetic consciousness, as Tulving claimed. To argue my point requires that I briefly consider Tulving's concept of auto-noetic consciousness. This concept refers to a capability that, when exercised, results in awareness of a past event as a veridical part of one's own existence. However, this capability may be exercised with regard to present and future events as well. Although Tulving (1985) was largely concerned with auto-noetic consciousness as involved in remembering, he did not totally neglect its broader scope: "Auto-noetic (self-knowing) consciousness is the name given to the kind of consciousness that mediates an individual's awareness of his or her existence and identity in subjective time extending from the personal past through the present to the personal future" (p. 1). Tulving distinguished auto-noetic consciousness from noetic consciousness. The latter makes one aware of objects and events in their absence. Auto-noetic consciousness (self-knowing) yields awareness not simply of objects and events but of one's experience of objects and events. At the core of auto-noetic consciousness is direct (reflective) consciousness of present awareneses (including present retro-awareneses). One's past and future stream is, of course, not available now to directly provide objects of reflective consciousness (cf. Natsoulas, 1979, 1984d). Instead, one is directly (reflectively) conscious of awareneses that are about past, present, or future states of affairs or events. Somehow the capability of auto-noetic consciousness makes us aware that the object of our present awareness is either a state of affairs or event that we are perceptually experiencing at this moment, or one that we have perceptually experienced, or may perceptually experience.

This brings me back to N.N. and whether he lacked auto-noetic consciousness, as Tulving suggested. Had N.N. really lacked auto-noetic consciousness, I do not believe that Tulving's description of him would have been as it was. Tulving described N.N. as aware of many things about the world and as knowing that he was so aware. N.N. could express his knowledge "relatively flexibly" (cf. the above discussion of reporting the past), and he was capable of introspection. Several times, Tulving (1985) asked him to describe his state of mind while he tried to think what he will be doing the next day:

When asked to compare his state of mind when he is trying to think about what he will be doing tomorrow with his state of mind when he thinks about what he did yesterday, he says it is the "same kind of blankness." N.N. makes all these observations calmly and serenely, without showing any emotion. Only when asked whether he is not surprised that there is "nothing there" when he tries to think about yesterday or tomorrow, does he display slight agitation for a moment and utter a soft exclamation of "Wow!" (p. 4)

Such introspective blankness is not an absence of auto-noetic consciousness; it is a deficiency in noetic consciousness, that is, of awareness of events in the past and anticipated future. Auto-noetic consciousness can only function relative to what the stream of consciousness provides in the way of perceptual and nonperceptual awareness. As Schacter and Tulving (1982) stated, "One of the qualities of amnesics' memory that has been noted in the literature is that the retrieved information simply 'pops into their minds'" (p. 44). We would not know this if amnesics lacked auto-noetic consciousness.

Tulving stated that N.N. is "clearly conscious" and "conscious in many ways". Tulving would not have so concluded if N.N. had no direct (reflective) access to anything that transpired in his mind. He would not have judged N.N. conscious had N.N. been only unconsciously aware of his environment. A completely blind-sighted individual would give himself or herself away, however good his residual visual capacity might be (e.g., Weiskrantz, 1980; Zihl, 1980; see Natsoulas, 1982): without auto-noetic consciousness, N.N. would not know when he had succeeded in experiencing something he tried to experience. He would go on trying to do so even after he had experienced it, *since he could not be aware of that experience*. N.N. would have no idea what to say when interrogated about his stream of consciousness. He would not speak of blankness as opposed to something more than blankness. I suggest that N.N. had a stream of consciousness to which he had inner access. The stream consisted of a flow of awarenesses that was distinctive not for its inaccessibility but for its limits on what it could present or represent. As Kinsbourne and Wood (1982) stated, "A normal person's mental life is riddled with the reexperience of episodes, the cuing of which is presumably internally generated [much if not most of the time]. If one were to interrogate amnesiacs about the incidence of remembered episodes in their 'stream of consciousness' one would presumably find them

devoid of such episodes" (p. 210). An amnesiac may well report this condition with dismay, a feat that requires auto-noetic consciousness.

Objections and Qualifications

1. To Tulving's (1985) thesis that remembering is a conscious experience, or that remembering involves what I have called qualitative retrowareness, Wittgenstein (1947/1980) would object as follows: "If someone asks me what I have been doing in the last two hours, I answer him straight off and I don't read the answer off from an experience I am having. And yet one says that I *remembered*, and that this is a mental process" (p. 23). If an experience of remembering does take place, one should be able to discover a content belonging to it. Wittgenstein asked what the content is in his example of remembering. In effect, he stated that trying to find a content here is like N.N.'s trying to think what he did yesterday: "We feel. . . that there just is *no* content there" (p. 23). Wittgenstein's straight-off answer to the question someone asked him, of course, does have content. But there is no further content, he held, that lies behind his answer and belongs to an experience that his answer expresses. Evidently, Wittgenstein consulted no retrowareness in giving his answer, as far as he could tell. Should we assume along with him that no retrowareness occurred? Might a retrowareness have occurred that was not accessible to him? Another possibility is that a retrowareness did occur and played a different role than in other situations of remembering; that is, it occurred peripherally rather than centrally. In either case, Wittgenstein did not consult a retrowareness in giving his answer. I assume this although consulting a retrowareness is not always, in turn, reflectively conscious.

No one will deny that Wittgenstein manifested awareness of his activities of the last two hours when he answered the question. And his present report to us about that incident indicates that he was, at the time, conscious of answering the question. His present report to us is based on his now remembering how he had answered the question and what was involved in his so doing. The spontaneity of Wittgenstein's answer to the question does not mean that he was, at the time of answering, like someone in such a distracted state that he or she answers questions with no awareness of doing so. Nevertheless, his present remembering was not of the same kind as that particular past remembering. His present remembering, which determined his report to us about his past remembering, was of the kind that he described as follows: "There is also such a thing as 'I believe I remember that,' whether rightly or wrongly—and here there comes into view what is *subjective* about the psychological" (Wittgenstein, 1947/1980, p. 23). In reporting to us now about his past remembering, Wittgenstein decides how it was. He consults one or more retrowarenesses in making his report. In the case of the past remembering at issue, one possibility is that

descriptively unconscious retroawareness took place and was causally responsible for Wittgenstein's answer, even though it did not produce a conscious representative in the perception-consciousness system. Two relevant points have been previously considered: (a) A descriptively unconscious retroawareness is necessarily reflectively unconscious. Thus, there is no content to consult if the descriptively unconscious retroawareness has not evoked a retroawareness in the stream of consciousness. (b) Retroawarenesses may transpire in behavioral form; a spontaneous utterance such as Wittgenstein's to the effect that something was the case may itself be a retroawareness. Such verbal occurrences also take place covertly, as well as incipiently—when they would be considered, perhaps, part of the stream of consciousness. When they occur overtly and consciously, as in Wittgenstein's example, one may well hesitate to say that they are reflectively conscious, for the simple reason that the person is not aware of them by direct (reflective) awareness. Wittgenstein's awareness of what and how he answered was external rather than internal; that is, perceptual rather than direct (reflective) consciousness was at work. Before Wittgenstein gave his answer, he was evidently unaware of it. Answering "straight off," he became conscious of his answer as he produced it; he heard and felt himself uttering it.

2. N.N. and other amnesics like him are greatly deficient in qualitative noetic consciousness. However, they are able to report some facts concerning some of the past states of affairs or events in which they were involved. For such reporting, nonqualitative retroawarenesses provide the necessary basis in the stream of consciousness. In N.N.'s case, a great many of these were, no doubt, verbal retroawarenesses. Tulving would not consider the application of auto-noetic consciousness to such retroawarenesses to be instances of remembering. Recall Tulving's requirement of qualitative retroawareness for remembering. He stated, "When a person does not *remember* an event, she may [nevertheless] *know* something about it" (p. 6). Although one may have qualitative retroawarenesses of, among other things, one's own or another's speech, verbal retroawarenesses should not be confused with them. Verbal retroawarenesses are not a matter of "hearing" one's own or another's past speech. Rather, they are overtly, covertly, or incipiently behavioral and are descriptions of past situations or events. Tulving would interpret Wittgenstein's spontaneous reply as simply a manifestation of what Wittgenstein *knew*; it was an expression of noetic consciousness, as opposed to remembering. Wittgenstein experienced no qualitative awareness of that past state of affairs or event in giving his answer, whereas remembering must involve a degree of reexperiencing the past, according to Tulving. I agree that auto-noetic consciousness does not make one *qualitatively* aware of the content of a verbal retroawareness. Whereas auto-noetic consciousness *does* make one aware of this kind of retroawareness *as true*, it does not necessarily place the "remembered" state of affairs or event in "one's own existence." It may do so, if the verbal retroawareness is itself already personal-

temporal, as for example: "We arrived in Boston late that night in January of 1953." Other verbal retrowarenesses will concern states of affairs and events that one has not experienced.

Purely conceptual retrowarenesses that are neither behavioral nor linguistic need consideration here as well. Gibson's (1966, 1979) theory of directly perceiving the ecological environment provides reason to expect many retrowarenesses that are not qualitative. Recall his consistent emphasis on the merely accessory role of all qualitative experiences in perceiving the world (Natsoulas, 1984e). Perceiving, he often stated, is a matter of the pickup of information and the direct acquisition of facts about the world, one's body, and one's behavior. Making explicit the implications for remembering, Woodworth (1915) argued similarly in a discussion of "imageless recall":

If you set yourself to discover what are the objects of your attention in a sensory experience, you will usually find that the actual sensations are less prominent than the things signified by them. You are more conscious of a horse galloping past than of the actual noises that you hear. When, therefore, you later recall hearing a horse gallop past, it is not surprising that the thing signified should be recalled more distinctly than the noises; and you are left in doubt whether to class the recall as an image or not. This is a type of numerous cases. (pp. 14-15)

Gibson would say that this is the usual type of perceptual awareness, and he would naturally extend this thinking to retrowareness. How we were perceptually aware determines how we remember the past facts of which we are now aware. That is, we have purely conceptual, nonqualitative retrowareness because of the nature of perceptual awareness itself. (Gibson, 1979, would object to the latter statement, however, because he did not believe that perceptual awareness involves concepts.) If Gibson and Woodworth were right, much remembering that involves nonlinguistic retrowareness will be as difficult to consider experiential as remembering that involves verbal retrowareness. As in the latter case, one would remember facts about the event or state of affairs, and one would not remember, as they say, the event or state of affairs itself.

3. As mentioned in the first major section, Smith (1966, p. 34) objected to James's (1890/1981) notion that remembering must involve knowledge that one is remembering. Also, Ayer (1969) considered this part of James's analysis of remembering to contain the most serious defect of any part:

We recollect scenes which we have witnessed without recollecting our reactions to them, or indeed without thinking of ourselves at all; and I see no reason why these should not count as genuine memories. It is true that if we were asked, in such cases, whether we had been witnesses of the events in question, we should normally reply that we had; but this does not mean that when we recalled them our act of recollection included any reference to ourselves. If we were conscious of having been present at the scene, it was in a purely dispositional sense. And even this is not absolutely necessary. (p. 245)

This objection applies as well to the view of Tulving, who insisted on the

personal-temporal dimension of remembering; thus, a reflectively conscious retroawareness does not necessarily constitute an instance of remembering. One may have such awarenesses without taking them to be more than imaginings. One does not base reports about the past on what one takes to be mere imaginings. Trying to remember, one rejects what they reveal: "We reject what [is offered] until the one thing which we want is presented. When it is presented to us we say 'This is it,' but we would not say this unless we recognized it, and we would not recognize it unless we remembered it" (St. Augustine, 397–398/1961, p. 225). Some reflectively conscious retroawarenesses will be considered interferences produced by the imagination.

Suppose that one hallucinates a scene that one previously experienced, yet it is now completely unfamiliar. Wittgenstein (1929–1948/1981) would agree with Tulving: one does not thereby remember the past. And Wittgenstein saw this case as relevant to an understanding of what remembering is: "Remembering: a seeing into the past. *Dreaming* might be called that, when it presents the past to us. But not remembering; for even, if it shewed scenes with hallucinatory clarity, still it takes remembering to tell us that this is past" (p. 115). Qualitative retroawareness provides veridical content for remembering. We cannot remember without remembering something, just as we cannot perceive without perceiving something. But just as we can be perceptually aware of something without recognizing it as something of which we have been perceptually aware before, we can be qualitatively retroaware of something without recognizing it as something of which we had been perceptually aware before (cf. Ebbinghaus, 1885/1913, p. 2). This may render more understandable Tulving's insistence that remembering is tied up with auto-noetic consciousness. Noetic consciousness can occur without one's being directly (reflectively) aware of the awarenesses that it yields. And one can be directly (reflectively) aware of noetic awareness without recognizing its object as already experienced at an earlier time (i.e., without remembering). So, too, spontaneous verbal utterances about the past do not count as rememberings when they occur unconsciously, when they occur without the speaker's being aware of them. To remember a state of affairs or event of which one is verbally retroaware, one must be aware of the retroawareness as true. By definition, a spontaneous verbal utterance was not selected, for its truth or otherwise. Such selection does occur when one makes a (deliberate) report about the past. Reporting the past depends on deciding what happened or was the case, which means consulting retroawareness. Such reports do not depend simply on having veridical imaginal awarenesses or true occurrent thoughts about the past. As Wittgenstein (1929–1948/1981) asked, "But if memory shews us the past, how does it shew us that it is the past?" To consider remembering as independent of auto-noetic consciousness has the problem of the many forms auto-noetic consciousness can take relative to retroawareness. Ayer (1969) mentioned that someone might sincerely deny having witnessed an

event that he or she was recollecting; one's present experience of the past event, therefore, could not be a remembrance of the past event. One has forgotten the fact that one previously experienced the past event. Or one might deny that the past event was the way one is now qualitatively retroware of it. One may reason, against one's retrowareness, that the past event could not have happened as one now imagines it. Whether or not one is remembering would seem to depend on whether one is auto-noetically conscious of one's retrowareness as presenting a content that one had before or as representing a content that is truly about the past.

4. Tulving (1985) stressed that auto-noetic consciousness results in awareness of the state of affairs or event remembered not simply as having occurred but also as having been experienced by oneself; a person who remembers a personally experienced event is "aware of the event as a veridical part of his own existence" (p. 3). James (1890/1981) also stressed that memory proper requires that one thinks one directly experienced the occurrence of the event remembered. But James acknowledged in a footnote certain phenomena of remembering that do not involve such affirmative awareness:

How do the believers in the sufficiency of the "image" formulate the cases where we remember that something did *not* happen—that we did not wind our watch, did not lock the door, etc.? It is very hard to account for these memories of omission. The image of winding the watch is just as present to my mind now when I remember that I did not wind it as if I remembered that I did. It must be a difference in the mode of feeling the image which leads me to such different conclusions in the two cases. (pp. 610–611)

We remember that we *did not* do a certain thing or that it *did not* happen at a particular time and in a particular situation. Wild (1969) considered this a telling argument against "the copy theory" of remembering, which James partially espoused. James repeatedly wrote of referring the content of a present qualitative retrowareness to the past; this was an essential constituent of remembering. However, one may remember *not* doing something in a particular situation by means of imagining doing it in that situation and at the particular time; what one experiences in remembering *contradicts* what one remembers. And we make use of the "counter-retrowareness" with the knowledge that it is not veridical. Auto-noetic consciousness may properly grasp part of our past existence by denying that what we imagine transpired. From similar cases, Broad (1925) argued that "the connection between the objective constituent and the epistemological object is much looser in the memory-situation than in the perceptual situation" (p. 244). He was referring to the content of a retrowareness or perceptual awareness (the objective constituent) and to the state of affairs or event remembered or perceived (the epistemological object). James had suggested that negative remembrances may differ from the affirmative ones with regard to how well the situation imaged is embedded with its

“associates of past date and place.” Broad pointed out that there really would not be a crucial difference between the “negative memory-situation” and the positive one if, only, one’s negative judgment took longer to arrive at. The real alternative hypothesis is that, also, one must be (positively) retroware of what did take place in order for the negative judgment to be formed. Broad (1925) suggested this was unnecessary: “The essential point is the felt fitting or non-fitting of suggested characteristics” (p. 247). The negative memory example is an important reminder to psychologists who will study memory and consciousness not to simplify the functions of autonoetic consciousness. It is premature to theoretically force this capability to deliver only positive awarenesses.

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