Vantage point in episodic memory

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University undergraduates undertook a series of manual tasks (e.g., shaping objects out of clay) and later recalled the experiences they had while doing so from either a *field* or an *observer vantage point*. In the former case, the subjects mentally reinstated the original task environment as if they were seeing it again through their own eyes; in the latter condition, the original task environment was envisioned from the perspective of a detached spectator. Analysis of the subjects' recollections revealed marked differences in the contents of field and observer memories. For instance, whereas field memories afforded richer accounts of the affective reactions, physical sensations, and psychological states that the subjects experienced as they performed the tasks, observer memories included more information about how the subjects looked, what they did, or where things were. Discussion focuses on prospects for future research whose aim would be to investigate the forensic and clinical implications of the field/observer distinction.

When people recollect an episode or an event from their personal past, such as the day they graduated from high school or the night their first child was born, they sometimes take the perspective of an autonomous observer or spectator, so that they see themselves as actors in the remembered scene. On other occasions, however, people re-experience the event through their own eyes, as if they were looking outward, perceiving the situation now much as they did before. These two different modes of remembering are referred to as *observer* and *field vantage points*, respectively.

Although the observer/field distinction has long been recognized—Freud (1899/1959) maintained that it had important psychodynamic implications for understanding memory (also see Henri & Henri, 1897)—empirical studies of the distinction are scarce. What little research has been done has revolved mainly around two issues: why a person selects one vantage point over the other to guide his or her recollection, and how the chosen vantage point affects the subjective experience of remembering.

Taking the second issue first, Robinson and Swanson (1993) asked subjects to recollect autobiographical events from various times in their lives. The subjects classified each event as either a field or an observer memory and rated its original and current emotional intensity (i.e., how the event made them feel when it took place vs. how they feel about it as they recollect it). One week later, the sub-

jects recalled the same events a second time—either from the original vantage point or from the alternative perspective—and again rated their past and present emotional intensity. Although there was little change in rated emotionality (either original or current) when the vantage point remained constant or when it shifted from observer to field, switching from field to observer produced a marked decrease in both measures. As Schacter (1996) has remarked, these results suggest that not only does the emotional intensity of an event depend in part on how one goes about remembering it, but also the emotions one attributes to the past sometimes arise from the way in which memories are retrieved in the present.

Regarding vantage point selection, several factors seem to be involved. One factor is event age: In general, people tend to see themselves as actors in events of the distant past but reexperience recent events from something akin to the original perspective (see Frank & Gilovich, 1989; Kihlstrom & Harackiewicz, 1982; Nigro & Neisser, 1983; Robinson & Swanson, 1993; Schacter, 1996). Personality factors also play a role: Observer memories predominate when publicly self-conscious individuals recollect their social interactions (Robinson & Swanson, 1993) or when people high in harm avoidance, a construct closely related to neuroticism, recall their earliest autobiographical experiences (Kihlstrom & Harackiewicz, 1982). Related to this, situations involving a high degree of self-awareness, social anxiety, or threat (e.g., public presentation and running from a threatening situation) lead to more observer memories, whereas situations with greater general affective involvement (e.g., feeling elated or angry and watching a horror film) lead to more field memories (Nigro & Neisser, 1983). And whereas instructions to concentrate on the objective circumstances surrounding an event often elicit observer memories, asking people to focus on the feelings associated with the original event typically engenders field memories (Nigro & Neisser, 1983).

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In common with others (e.g., Robinson, 1996; Robinson & Swanson, 1993), we conceptualize vantage point as a cognitive strategy that is used during the recollection of episodic memories. Given that allied research has shown that subjects remember different kinds of information when recall is guided by different schematized roles (Anderson, Pichert, & Shirey, 1983) or by different emotional states (Eich, 1995), it makes sense to ask the following: Does the selection of a particular vantage point (either field or observer) similarly influence the content of one's memory for personally experienced events?

To address this question, we had university students undertake several hands-on tasks (e.g., lifting small barbells) as they walked around a large, distinctively decorated room. Later, while sitting in a small, sparsely furnished office, the subjects attempted to recall their experience of the original environment, and of the tasks they had performed within it, from either a field or an observer vantage point. Following recall, we solicited the subjects' own opinions on how the specified vantage point may have affected their memory, and we recruited two coders (both blind to recall condition and experimental hypotheses) to carefully analyze the contents of the subjects' tape-recorded recollections, using a scoring key. In this manner, we sought to (1) develop a methodology for reliably evoking memories from field and observer vantage points, (2) explore whether the subjective experience of retrieval is influenced by vantage point within the context of a controlled encoding situation, and (3) examine the extent to which different vantage points give rise to different types of remembered material.

METHOD

Fifty-two university undergraduates (31 women and 21 men; mean age, 19.0 years), all of whom were fluent in written and spoken English, received course credit in return for their participation. The subjects were tested individually throughout the course of the experiment, which consisted of a single session lasting about 45 min.

The subjects were told at the outset that they would be asked to spend about 10 min completing a series of manual tasks and that they would later be asked to recall the experiences they had had while performing these tasks, including the surrounding environment. The tasks, which were designed to be actively engaging and replete with sensory and other experiential elements, included (1) molding a ball of clay into an object of the subject's own choosing for 3 min, (2) throwing a small foam basketball into a hoop for 1 min, (3) touching a furry object for 1 min, (4) folding paper, with gloved hands, to match a model abstract design for 1 min, (5) lifting 1-kg barbells (bicep curl) five times with both arms, and (6) twice attempting to flutter a sheet of paper in front of a fan and a heater. Task materials (clay, barbells, etc.) were laid out on a conference table, which the subjects moved around in a clockwise direction, completing the tasks in one of two randomly determined orders. The table itself was located in a large room that was decorated with wall posters and suffused with classical music.

On completing the last task, the subjects were escorted to a nearby office containing two chairs, a bare table, and several empty bookshelves. Depending on the recall condition—either field or observer vantage point—to which they had been assigned, at random and in equal numbers, the subjects received one of two sets of instructions.

In the *field condition*, the subjects were asked to mentally reinstate the original room as if they were seeing it again through their own eyes; in the *observer condition*, the subjects were asked to mentally reinstate the original room as if they were viewing it from the vantage point of a spectator or detached observer, watching themselves in the remembered scene. While maintaining the specified vantage point, the subjects were asked to recall—aloud and in as much detail as possible—their experience of the original room and of each of the tasks they had performed within it, starting with the first task and continuing on to the other five. All of the subjects' recollections were recorded on audiotape.

Following recall, the subjects completed a six-item questionnaire that asked the following: (1) For what percentage of the total recall time were you able to maintain the field [observer] vantage point, (2) how strongly did you maintain the field [observer] vantage point, (3) how easy was it for you to maintain the field [observer] vantage point, (4) to what degree did the field [observer] vantage point influence your recollections, (5) how rich in detail were your recollections, and (6) how rich in emotion were your recollections? Responses to the last five questions were made on 7-point scales, where 7 meant *strongly maintained/easy to maintain/large influence/much detail/much emotion* and 1 signified *not strongly maintained/difficult to maintain/small influence/little detail/little emotion*. The subjects left the lab with a written account of the study's aims and methods and a credit slip for their participation.

RESULTS

Postrecall Questionnaire

Multivariate analysis (Hotelling's T test) indicated significant differences between vantage points in the subjects' responses to the six-item postrecall questionnaire [$F(6,45) = 11.42, p < .01$]. To isolate these differences, follow-up t tests were conducted using a Bonferroni-adjusted alpha of .02 (i.e., .10/6; given that the Bonferroni adjustment is conservative, an alpha level of .10 was judged to be a reasonable compromise between control for Type I error inflation and maintenance of statistical power).

By their own account, the subjects found it easier to maintain the field than the observer vantage point during the recall period [mean ratings = 4.2 vs. 2.5; $t(50) = 4.70$]. In addition, the subjects rated field memories higher than observer memories in their richness of detail [means = 5.0 vs. 3.9; $t(50) = 3.27$] and emotionality [means = 4.4 vs. 2.9; $t(50) = 4.12$]. However, there was no reliable difference between field and observer vantage points in how long they were maintained over the course of recall [mean total time percentages = 81% vs. 73%; $t(50) = 1.89$], how strongly they were held (mean ratings = 4.9 vs. 4.8; $t < 1$), or the degree to which they influenced recall (mean rating = 4.8 vs. 4.8; $t < 1$).

Coding and Analysis of Recollections

A verbatim transcript was prepared of each subject's tape-recorded recollections, and the total number of words was calculated by computer program. There was a non-significant—but nonetheless notable—tendency for longer field than observer transcripts [means = 844 vs. 659 words; $t(50) = 1.94, p = .06$]; the typical transcript contained 750 words.

Each transcript was coded according to 11 categories by two trained assistants, both blind to recall condition and study hypotheses (intercoder reliability > .85), and for memory errors to assess the accuracy of the subjects' accounts. The 11 categories were defined in terms of statements (single words or phrases) reflecting (1) *affective reactions*, whether emotional or motivational in nature (e.g., it was *fun* playing with the clay; I was *determined* to make my basketball shots); (2) *physical sensations* from any sensory modality (e.g., the clay felt *soft*; I *listened* to some music); (3) *psychological states* (e.g., I *wondered* how much time was left while I was folding the paper; I was *confused* about what to do); (4) *associated ideas*, including knowledge or experiences gained outside the current experimental context (e.g., my grandmother raised rabbits and the fur led me to think of her; I made a car out of the clay because I just bought a new Miata); (5) the subject's *personal appearance* (e.g., I can see myself in my sweater; I can see my ponytail waving while I'm shooting the basketball); (6) *physical actions* made in the course of performing the tasks (e.g., I *shot* the basketball; I *sat* at the table); (7) *spatial relations* among objects used in the tasks, relative to other objects or to the subjects themselves (e.g., the basketball hoop was *above* the table; the clay was *to the left* of the model airplane); (8) *first-person accounts* (e.g., I, me, myself); (9) *third-person accounts* (e.g., he, she, the experimenter); (10) *fine details* of the task objects, including color, shape, size, and numerical quantifiers (e.g., the clay was *blue*; the paper was shaped like a *triangle*; the barbell was *small*; I took *20* shots at the hoop); and (11) *peripheral details* of the room that were not central to the tasks (e.g., there were *Coke cans* sitting on the *bookshelf*).

The total number of statements in each category was calculated for each subject, and the resulting data were then averaged over subjects to yield the mean frequencies shown in Table 1.

A Hotelling's *T* test was performed between the field and the observer conditions with 11 dependent variables.

Table 1
Mean Number of Statements in 11 Memory Content Categories as a Function of Vantage Point at Retrieval

Content Category	Vantage Point				F-O
	Field (<i>n</i> = 26)		Observer (<i>n</i> = 26)		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Affective reactions	8.0	3.9	1.2	1.7	6.8*
Physical sensations	6.3	5.5	1.4	1.4	4.9*
Psychological states	11.0	9.1	2.3	2.5	8.7*
Associated ideas	3.5	3.5	0.1	0.3	3.4*
First-person referents	65.7	37.5	29.6	23.0	36.1*
Personal appearance	0.0	0.0	2.2	3.7	-2.2*
Physical actions	21.9	13.1	35.1	17.3	-13.2*
Spatial relations	2.6	3.2	5.1	3.3	-2.5*
Third-person referents	0.0	0.0	14.2	25.9	-14.2*
Fine details	24.8	17.7	25.5	10.0	-0.7
Peripheral details	3.8	6.1	4.9	5.6	-1.1

Note—Asterisks denote comparisons, made using independent-sample *t* tests that were significant at a Bonferroni-corrected alpha of .01.

The multivariate effect was significant [$F(11,40) = 11.32$, $p < .01$], and supplemental *t* tests were carried out using a Bonferroni-adjusted alpha of .01 (i.e., .10/11).

Inspection of the table reveals that field memories contained more statements reflecting the affective reactions [means = 8.0 vs. 1.2; $t(50) = 8.13$], physical sensations [6.3 vs. 1.4; $t(50) = 4.43$], psychological states [11.0 vs. 2.3; $t(50) = 4.72$], and associated ideas [3.5 vs. 0.1; $t(50) = 4.9$] that the subjects experienced in the course of completing the tasks. In contrast, observer memories contained more statements reflecting the subjects' personal appearance [0 vs. 2.2; $t(50) = 2.88$], the actions they made while performing the tasks [21.9 vs. 35.1; $t(50) = 3.11$], and the spatial relations among the task objects [2.6 vs. 5.1; $t(50) = 2.84$]. As is also apparent in Table 1, first-person accounts were much more common for field than for observer memories [65.7 vs. 29.6; $t(50) = 4.05$], whereas the opposite was true for third-person accounts [0 vs. 14.2; $t(50) = 2.80$]. The only dimensions along which field and observer memories did not differ reliably were fine details relating to the task objects (including their color, shape, and size; 24.8 vs. 25.5; $t < 1$) and peripheral details concerning the room in which the tasks had been performed (3.8 vs. 4.9; $t < 1$).

Regarding the veridicality of the memories from each vantage point, there was a total of only two errors, both made by the same subject in the field condition. This person reported that the blackboard was a whiteboard and that the basketball hoop had a backboard, which it did not.

DISCUSSION

The results of this study suggest that what one remembers about events of the past depends in part on which retrieval mode or vantage point one adopts at the present. Taking a field, as opposed to an observer, perspective predisposed the subjects to recall phenomenological aspects of the remembered episodes. In particular, field memories included more information concerning the affective reactions, physical sensations, and psychological states that the subjects experienced as they shot basketballs, shaped clay objects, and performed other manual tasks. Also embedded within field memories were associations to other, related ideas or experiences—a type of remembered detail that was virtually absent from memories retrieved from an observer perspective. Instead, observer memories contained information that would have been especially salient to a detached spectator—specifically, information about how the subjects looked, what they did, or where things were. As further evidence of the strength of the vantage point manipulation, the subjects assigned to the field condition were more likely to talk about their memories in first- than in third-person terms, whereas the opposite was true for the subjects in the observer condition.

Vantage point also influenced the subjects' own experience of remembering. The subjects in the field condition

perceived their memories as being more emotional and more detailed than did the subjects in the observer condition. Although the former perception was borne out by content analyses of their recollections, the latter perception was not: The two vantage points yielded equivalent numbers of peripheral and fine details.

A potentially thorny issue, endemic to studies entailing manipulations of retrieval perspectives—or any other psychological state—is the influence of *demand* characteristics. Although *all* instructions given to subjects have an element of experimental demand—otherwise, they would not be instructions—the degree of demand they convey lies on a continuum.

To illustrate this claim with a well-known example, Anderson et al. (1983) had subjects recall a story about a house from the point of view of either a home buyer or a burglar. Although all the subjects had originally read the same story, they remembered it differently depending on the recall instructions. Those who recalled from the home buyer perspective were more likely to remember details about the appearance and integrity of the house, whereas those who took the burglar perspective were more apt to recall how to get into and out of the house, as well as what loot it contained.

What made these differences interesting is that they emerged even though the instructions were very simple and nonspecific. Thus, in one condition, subjects were asked to recollect the story “from the perspective of a potential home buyer” (Anderson et al., 1983, p. 273), which is different from saying “from the perspective of a potential home buyer, including the condition of the house, its attractive features, and its detracting characteristics.” Between these two examples are many possible degrees of experimental demand. Similarly, in the other condition, one could have instructed subjects to recall the story “from the perspective of a burglar”—which is what Anderson et al. (1983, p. 273) did—or one could have said “from the perspective of a burglar, and you should pay particular attention to ways into and out of the house, as well as to the types of valuables inside.” Thus, although the instructions used by Anderson et al. necessarily placed demands on the subjects, they did not come close to specifying all the types of details that were actually remembered.

The same applies to the present study, which revealed reliable differences between field and observer memories in several specific domains (e.g., affective reactions, physical sensations, and spatial relations), none of which was alluded to in the general instructions we provided. To underscore the point, results similar to those reported here have been obtained in a recent clinical investigation (McIsaac & Eich, 2002), in which changes in vantage point occurred naturally (i.e., without instruction) when individuals recollected traumatic as opposed to nontraumatic events. This suggests that the field/observer differences detected in the present study arose not as a by-product of implicit experimental demand, but rather as a consequence of the particular vantage point the subjects adopted during recollection.

The present results have important potential implications for both forensic and clinical practice. Regarding the former, police investigators routinely administer to crime eye-witnesses the Cognitive Interview—a four-part protocol designed to elicit detailed information through different types of memory instructions (see Geiselman, 1999). One part of the interview asks witnesses to describe the crime from an observer vantage point. Although the Cognitive Interview has been shown to yield significantly more information than standard methods of witness interrogation (Fisher, Geiselman, & Amador, 1989; Geiselman, Fisher, MacKinnon, & Hollon, 1986), the contents or characteristics of this extra information have not yet been explored.

In light of the results reported here, it may be that some of the memorial advantage of the Cognitive Interview over standard interrogation methods lies in the improved recall of information specifically related to the witness’ appearance, actions, spatial layout of the area, and other physical details of the remembered scene that are salient from an *observer* vantage point. If so, this would be of considerable value to police investigators, who prize precise recollections of physical details over an eyewitness’ retrospective accounts of his or her emotional reactions or psychological states—information that is especially accessible from the *field* perspective. Moreover, our results suggest that memories retrieved from either vantage point are equally accurate: When tested for recall only minutes after completing a series of manual tasks, observer-condition subjects made no memory errors, whereas their field-condition counterparts made a total of only two. An interesting issue for future research is whether this equality holds even when the overall error rate increases, as it surely would if the retention interval were lengthened to several hours or even days.

Concerning clinical implications, the use of the observer vantage point has been noted in a number of psychiatric populations, including those with posttraumatic stress disorder (PTSD; Foa & Rothbaum, 1998) or social phobia (Clark & Wells, 1995). In PTSD, which is typically precipitated by extreme distress experienced during a traumatic event, taking an observer vantage point may serve to distance the individual from the event, especially its overwhelming emotional aspects (see Cardena, 1997). Given that observer memories are experienced as less emotional than field memories, adopting an observer vantage point when recalling traumatic events may offer a sense of emotional relief, thereby reinforcing the use of this perspective during subsequent recollections (i.e., a cognitive avoidance strategy). Current theories of PTSD treatment, however, suggest that emotional engagement during recollection is essential for the effective resolution of traumatic experiences (Foa & Hearst-Ikeda, 1996; Foa & Kozak, 1986; Rachman, 1980); thus, by muting emotional engagement, the chronic use of the observer vantage point may have the unintended, and unfortunate, consequence of impeding clinical progress and trauma recovery. Research is now underway whose aim is to ad-

dress this and related clinical implications of vantage point selection.

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