

Developments and debates in the study of human memory

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THE STUDY of human memory is currently evolving and changing at a rapid pace. Issues on which researchers were once silent, such as emotions, the self, autobiographical memories, collective memories, consciousness, and recollective experience now feature large in the major cognitive psychology journals. Moreover, the stress that accompanies rapid change has thrown up sometimes acrimonious and certainly always lively debates as to how memory research should proceed. Questions about the functions of memory, the proper subject matter of memory research, and criteria for acceptable methodologies, have preoccupied researchers in a number of recent exchanges. The *discourse analysis* (DA) approach to memory is a newcomer to these debates and the purpose of this special issue of *The Psychologist* is to highlight some of the important considerations which the DA approach brings to study of human memory.

I invited Edwards, Middleton, and Potter to write a fairly brief paper on the DA approach to memory which clearly summarised their view and which mentioned some of the DA type of research. We agreed that their paper would then be sent to various leading memory researchers for short peer-review comments and that Edwards *et al.* would then write a reply to the comments. The paper, comments, and reply follow this introduction. However, before turning to the DA approach directly it may be useful to consider very briefly the current climate of memory research in which the Edwards *et al.* paper finds itself.

As I indicated above, the current climate of memory research is hot and the temperature continues to rise as memory research expands and diversifies. One of the main reasons for this relates to a critique of mainstream laboratory-based memory research which first emerged in late 1970s and which flowered in the 1980s. The critique can be localised to the publication of Neisser's (1976) book *Cognition and Reality* which argued that cognitive psychology in general had become too laboratory oriented and that, as a consequence, theory and findings tended to ignore a critical component of human cognition - namely that human cognition takes place in everyday environments and interacts with those environments. Cognition evolved in response to aspects of the environment and by only considering cognition in the somewhat sterile and artificial environment of the psychological laboratory, psychological theory and research was necessarily limited in its generalisability and applicability.

The ecological approach to cognition was subsequently employed by Neisser (1978) in a highly critical appraisal of laboratory-based memory research. The effect of Neisser's (1978) article and the "Practical Aspects of Memory Conference" at which it was delivered, was to provide a strong impetus to ecologically-based types of memory research - research which subsequently became known as *everyday memory*. Everyday memory research has proliferated in the past 15 years. For example, the second "Practical Aspects of Memory Conference" held in 1987 attracted sufficient papers to easily fill two very large volumes, compared to the single (large) volume of proceedings from the first conference, (Gruneberg, *et al.*, 1978, 1988). These developments have not, however, been rapturously received by all laboratory-based memory researchers and despite the diversification of research occasioned by the ecological movement laboratory-based research papers continue to dominate the journals and everyday memory papers comprise only a small percentage of all publications. Furthermore, in a smouldering paper Banaji and Crowder (1989) launched a bitter attack upon what they perceived as the low scientific credibility of everyday memory research, exhorted researchers to abandon this type of research, and suggested that the ecological critique was of little substance. A series of replies and counter replies then ensued (see Conway, 1991; Ceci & Bronfenbrenner, 1991; and the many comments in *American Psychologist* in January 1991).

Within this (over) heated discourse the DA approach to memory is firmly located in the everyday memory camp

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taking, as it does, naturally occurring discourse as the object of study. The central focus of the DA approach is on how people use knowledge of the past in current interactions to generate shared meanings and communicate with each other. Thus, DA is principally (Edwards *et al.* would, no doubt, say "exclusively") concerned with how people use knowledge of the past in the present rather than with how such knowledge was acquired, retained, and retrieved, - the traditional concerns of both laboratory-based and everyday memory-based research. How knowledge of the past is used in present discourse is, of course, an important area in its own right. Yet in addition to the intrinsic interest of the area, findings from DA projects clearly should feedback to inform research concerned with acquisition, retention and retrieval. After all one of the main ecological demands on human memory is that it is able effectively to deliver knowledge of the past, in appropriate form, when required by an individual in some current discourse. Thus, how people use knowledge of the past in present discourse should tell us something about what the nature memory must be. I take this to be the central contribution of the DA approach and, importantly, it focusses attention on the purposive use of memory - a central issue almost completely overlooked in memory research.

However, the DA approach is, like the everyday memory approach, bound up with a programmatic series of criticisms of laboratory-based memory research and of the meta-theoretical framework of functionalism (the computational theory of mind). Indeed, many of Edwards *et al.*'s comments are aimed directly at what they perceive as

shortcomings in laboratory-based *and* everyday memory-based studies of human memory. In my opinion such criticisms mainly serve to distract the reader (and, perhaps, the theorist her/himself) from the theoretical substance of a proposal.

Thus, the question I want to close this introduction with is: Do these different approaches, laboratory experiments, everyday memory, the DA, necessarily have to take adversarial stances to one and other? The answer, I think, is that they do not. Perhaps, in the politics of science taking strong confrontational stances is pragmatically useful - if nothing else it is an effective way to get a hearing for one's view. In the development of a general theory of human memory - which is what I assume we are all ultimately working towards - it is the theoretical substance which will count and any approach emphasising an overlooked aspect of human memory is to be welcomed.

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Toward a discursive psychology of remembering

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WHAT IS memory, and how can we study it? As psychologists, we need some operational definitions, and there are many possible starting points, none of them theoretically neutral. The psychology of memory is heavily shaped by which of these starting points we choose. Memory is commonly defined as retention: the difference between input and output or between learning and re-learning, or simply what is not forgotten, or what is added to experience. Or it is the total of an individual's knowledge of the past, its semantic organisation, or the reconstruction of experienced events, or the total of recollections; or everything we need to know to do whatever we do next. We can devise laboratory tasks, in which different kinds of input and output, and intervening conditions, and contextual conditions, are varied to see what kinds of mental processes are revealed. Or we can pursue ecological realism, where the problem of memory arises as a problem of everyday living: we experience loss of memory, an inability to recall, we keep a diary, try to remember a phone number or a birthday, recount events to somebody, and so on.

Language has provided the most pervasive basis for operationalising and theorising about memory. Linguistic materials are used as experimental input, either for their readily definable linguistic properties (phonetic, semantic, grammatical, presuppositional, etc.), or else as textual stand-ins for the events they describe, and for subjects' cognitions about those events. It is this latter use of linguistic materials, as representations of events and of event cognition, that we shall focus on here. Linguistic materials are not only useful for method, but feature strongly in theory too. Distinctions between STM and LTM, or between different depths of processing, or other kinds of memory (semantic and episodic, etc.), often appeal to linguistic distinctions or are heavily based upon linguistic and textual representations and metaphors.

The aim of this discussion is to outline a recently developed way of operationalisation and theorising about memory, which also focusses upon language. This is discourse analysis (DA), the study of how everyday *versions* of events (including persons, things, states of affairs) are *constructed* and *occasioned* in talk and text. Because descriptions of events (etc.) can be indefinitely varied and extended without becoming objectively wrong (see Heritage, 1984), DA focusses upon how specific versions are produced and fitted to the occasions of their production. The analytic focus is upon how versions are produced (how events are described, and so on), and what interactional business participants accomplish by constructing their descriptions in one way rather than another (cf Potter & Wetherell, 1987). Any event report is one of an indefinite number of possible reports, but often contrasts rhetorically, with some more narrowly defined alternative version that might otherwise be assumed (Billig, 1987). Even the idea of versions being "wrong" can be dealt with as a matter to which participants orientate their discourse, rather than being legislated for by the analyst. The factual and cognitive status of a report, as being offered "from memory", or on the basis of direct experience, or as lies, error or hearsay, are also studied as participants' concerns, rather than as categories applied by the analyst. By locating the study of memory within the study of discourse, many of the psychologist's theoretical concerns are re-defined in this way, as matters that may arise for participants (Edwards & Potter, 1992a).

Of course, psychologists have a legitimate concern for what people really do, or really can, remember, not just what they happen to report. But empirically, this is no easily maintained distinction. All studies of memory are studies of actual performances, operationalised for measures of capacity. We always have to make assumptions (or offer arguments) about what kinds of performances are going to tell us about the "real" nature of memory, or remembering, or

whatever it is that people do in relation to past events. By studying performances that experimental subjects produce on demand, rather than spontaneously in the context of their ordinary lives, it is assumed that specific content, timing and context in which a version is produced are not important, or else are variables that may *affect* memory, but are not constitutively part of it. It is a choice that we make, rather than a discovery, that memory is a capacity abstracted across many individual subjects, rather than as patterns of actual, situated performances. Undoubtedly there are important generalisations to be made about capacity. But undoubtedly also, everyday remembering is governed by performance criteria that are not determined by efforts at dispassionate total recall. The study of discursive remembering even casts doubt on the possibility, and theoretical coherence, of such a thing. Our argument is that actual rememberings are always particular realisations from indefinitely many possibilities.

The notion of indefinitely many possible versions raises a key issue for discursive remembering: The importance of *description*, the ways in which things and events are put into words. It points at the same time to a major contrast with most other approaches to memory. Most studies of memory, which define it as information processing, measure memory as a discrepancy between input and output. Lists of items, prose passages, input sentences, etc., are presented to subjects, and recall is asked for, prompted or probed such that task performance can be compared with input materials. Any discrepancies (omissions, substitutions, additions, distortions, re-orderings) are then the basis for theorising about intervening cognitive structures and processes. This procedure requires that input and output are comparable, and the usual way of ensuring this is to make them share the same representational form; textual recall for textual materials, or recognition for pictures or sentences that were originally presented in the same form. Memory performances can be compared to an exact, and directly comparable, original input. But in everyday remembering, people overwhelmingly describe things rather than recite them, putting nonverbal experiences into words or glosses upon complex events, as well as offering some direct quotations or formulations of what people have actually said. (But even direct quotations can be a more a matter of presentation or "footing" than of accuracy: Wooffitt, 1992.) The usual mode of discursive remembering is descriptive rather than reproductive, what we have called "cross-modal" (Edwards & Middleton, 1987). So information processing experiments typically avoid, or fail to take into account, one of the key issues for everyday remembering, the indefinitely variable nature of description.

This means that information processing approaches gain an important and highly fruitful methodological advantage, enabling memory performances to be studied in a precise and measurable way. But this advantage is bought at a heavy price in any study which relies upon language as a resource for method and theory. It is not only that, ecologically, people ordinarily perform many rememberings which happen not to be of the single-modal, reproductive sort, where input and output are both textual (or pictorial, tested by recognition). It is that such uses of language seem rather peculiar uses of language! Language does not, arguably, exist primarily as a representational domain for individual cognition, no matter how useful this may be as a domain for designing experiments on memory. From a discursive perspective it exists as a domain of social action, of communication and culture, whose relations to an external world of events, and to an internal world of cognitions, are a function of the social and communicative actions that talk is designed for. It is no accidental or matter-of-fact observation, that everyday talk about past events is seldom a series of best efforts at textual reproduction. To conclude that such everyday talk is therefore not really or strictly "memory" would merely beg the important question, of

what kinds of everyday cognitive performances the study of memory is supposed to tell us about.

One of the assumptions of input-output information processing studies is that memory has to be measured against known past events. If we were unable to refer to what really happened, or what the original stimuli were, we would be unable, on this assumption, to measure the workings of memory. In the case of everyday discursive remembering, we often have no such external criterion, though we could seek to restrict studies to cases where we do. But again, this misses an important feature of everyday event reporting. Not only are possible (cross-modal) descriptions endlessly variable before becoming simply or obviously wrong, but it is one of the prime features of *such talk itself* to establish what it is that actually, merely and definitively happened. In an important sense, and one very relevant to the psychology of participants, the truth of original events is the *outcome*, not the input, to the ordinary reasoning processes that talk displays. This derives from the vagaries of description, an essential feature of the workings of language as a mode of representation.

This inversion of the logic of information processing (reality as outcome, not input to event construction) holds whether we are examining mundane conversation, or the textual practices of formal science itself (Gilbert & Mulkey, 1984; Latour, 1987). While it is quite feasible, and often highly productive, for the analyst to define procedurally, independently of people's rememberings, a definitive version of events, it has to be understood that in choosing that operational path, the psychologist also chooses to side-step one of the most important features of talk about events, which is their to-be-established nature for participants. In the study of discursive remembering, it is precisely the procedures by which definitive versions are produced, sustained, defended, bolstered, refuted, etc., by participants, that is the object of investigation. This effectively transforms the possibilities of studying remembering as an everyday activity, from one that is restricted to the study of single modal, reproductive, known input studies, to one that is sensitive to the kinds of things that rememberers are ordinarily doing when they produce versions of events. The devices by which versions are produced as true, or otherwise, are studiable in discourse.

Some of these features of discursive remembering, both the phenomena and principles for their analysis, are set out below, and fleshed out afterwards (adapted from Edwards & Potter, 1992a & b).

A Discursive Action Model of Remembering.

1. The explanatory basis is action, not cognition.
2. "Remembering" is operationalised as reports, versions, descriptions, etc.
3. Versions (etc.) occur within activity sequences.
4. There is a dilemma of stake or interest.
5. Versions have to be constructed/displayed as factual.
6. Versions are rhetorically designed to undermine alternatives.
7. Versions attend to agency and accountability in reported events.
8. Versions attend to accountability in the current action of reporting.
9. Features 7 and 8 are treated as mutually implicative.

Rather than treating event reports as produced by, or evidence of, prior and underlying (cognitive) event representations, reports are treated as parts of discursive actions

(point 1). Memory is operationally defined as discursive reporting, and analysis focusses upon how reports feature, via their precise content and sequential placing, as parts of activities such as blaming, rebuttals, compliments, invitation refusals, etc. (point 2). Talk is analysed as performing situated social actions (point 3). Because versions perform such actions, and are organised and responded to on that basis by participants, a dilemma of fact and interest arises (point 4). Any report is available to be seen as interested, as designed to serve such actions, and this threatens its status as a mere, or factual, report (point 5). So reports or versions can be examined (by both analysts and conversational participants) for their rhetorical design and placement, for how they accomplish factuality, or disinterestedness, and in turn how they are designed to undermine alternatives, and are subject to undermining (by participants, in discourse: point 6). The production of versions of events in ordinary talk is therefore a heavily contextualised affair, and reports can be expected to vary according to their conversational placing and the actions they are designed for.

The issues of agency and accountability (points 7 to 9) also arise as features of the action orientation of event reportings. Many everyday reports describe human events, ones in which people are involved, and where issues arise of who did what and why, and who was responsible (point 7). Often they are reports of events in which the reporter was involved. But even when they are not, they are still likely to be events or states of affairs in which the current speaker may have some interest, some stake in how they are described and understood. The current act of reporting those events is also a social action, a human event in the making, with its own issues of who is doing what and why (point 8). Indeed, this is the discursive business at hand, the implications of the event as reported, for the current interaction, and it is precisely this kind of "stake" or "interest" that a report or telling will be designed to manage, and with regard to which its factual status is at risk.

The mutual implications of responsibility in events and in their reportings (point 9) is best dealt with via illustration. Take an invitation refusal. Instead of simply rejecting an invitation, speakers routinely offer "inability" accounts (Drew, 1984) that contain event reports to the effect that, contrary to the refuser's wishes, the rejection is forced upon them by circumstances. In the context of such current conversational activities, circumstantial reports are clearly designed, in their content and placing, for their interactional implications. Similarly, the current act of reporting may have implications for the earlier events reported: as when Mrs Thatcher, when providing an account of how her Chancellor Nigel Lawson came to resign, expressed regret at his going. To be regretful now was to imply that, contrary to suggestions, she did not push him out in the first place (Edwards & Potter, 1992). These implicative relationships between the flexibilities of description, the to-be-established nature of original events, speakers' interests in those events, and the current activities in which reports are produced, are pervasive features of discursive remembering.

Empirical studies of discursive remembering are ones in which traditional psychological issues such as memory capacity, or an individual's real, best or definitive recollection, are replaced by, or subordinated to, issues of social action. The question becomes, what shapes this particular account or description, in this context: what is being *done* here, in this formulation of events? We would resist the argument that this implies an abandonment of concern for the psychological workings of memory. Rather, it implies a re-definition of the phenomenon, in three ways: topic, method and theory. The *topic* is accounts and reports of past events, as these occur spontaneously in discourse. The *method* is the close analysis of actual reports, descriptions and versions, in terms of their content, sequential placing

and rhetorical organisation within discursive activity sequences. This involves the collection and transcription of conversational and textual materials, the searching of patterns of action and response, the comparison of various accounts of the same phenomena across different functional contexts, and other methodological canons of discourse and conversation analysis (see for examples, Atkinson & Heritage, 1984; Edwards & Potter, 1992; Levinson, 1983; Middleton & Edwards, 1990a; Potter & Wetherell, 1987). The *theory* is derived from the broader principles of discourse analysis, rhetorical and discursive psychology, which stem in turn from features of cultural psychology, linguistic philosophy, ethnomethodology, classical rhetoric and the sociology of science. This is, essentially, a theoretical orientation in which versions of mind and reality, including event reports, are explicable in terms of principles of report construction, as situated discursive action, prior to any status they may have as clues to the nature of the world, or to the workings of mind. Specific versions of events (and other things) are seen as socially produced outcomes, or accomplishments, of discourse, rather than as neutral inputs to psychological processes, or as cognitive states that versions reveal.

This is inevitably a highly condensed treatment of the nature and scope of discursive remembering. And since empirical studies tend to be analyses of extended extracts of conversation and text, we can do no more here than offer a flavour and overview of some of those studies (see also Middleton & Edwards, 1990a). Most of the empirical work has two strands. One of these concentrates on the detailed conversational and textual devices of event construction, the rhetoric of description and event reporting, and the situated actions that versions are organised to perform: the kinds of issues defined in the Discursive Action Model. The second strand is concerned with how such performances take place within various organised and institutional settings, and the ideological themes at stake in them, such as schools, families, therapy and health practitioner groups, scientific texts, court rooms and political event reporting. In fact, most of our studies address both of these concerns, such that the kinds of issues (fact, rhetoric, social action, stake and interest, accountability) that the Model identifies are referenced (by participants) to the broader institutional settings in which versions of events are produced. In keeping with our topic, we shall adopt a narrative rather than analytical form for outlining some empirical work.

Our first exploration of discursive remembering was of a transcribed conversation in which a group of eight people had been asked to remember everything they could about the film "E.T." (Edwards & Middleton, 1986a). The analysis focusses upon the conversational devices by which the participants set about producing a joint version, building via the default continuity of sequential turn taking a reconstruction of the film's narrative sequence, sharing the burden of recall, comparing recollections, inserting out-of-sequence reminiscences, and commenting at particular kinds of junctures (when the account ran into difficulty) on meta-mnemonic features of what they were doing. The study convinced us of the richness of such data for the study of remembering as a conversational activity, and emphasised the usefulness of conversational data in providing explicit formulations by participants of the kinds of causal and inferential links and rationalisations that laboratory studies have suggested, via input-output discrepancies, must intervene in textual event memory. Not only do participants often explicate such links and inferences ("so he meets the older boy um because doesn't he bring him in and says..."; *ibid.*: 444), but their occurrence in conversation provides more than just an impression of individuals problem solving mnemonic solutions, but of a rhetorical exercise in which participants justify and warrant versions against alternatives and the possibility of refutation.

It also drew our attention to the importance of the task setting, or conversational ground rules, for the talk. At the end of the recording, having apparently satisfied the experimenters' requirements for narrative reconstruction, the group fell into exchanging a set of personal reactions, reminiscences and exchanges about various aspects and "bits" of the film that they found personally significant - "I thought the best bit was when they found him lying there...", etc. In contrast to sequential reconstruction, recall was now an exchange of the bits that were best, boring, funny, pathetic, significant. But still, all these reminiscences were referenced to what the other people remembered, and how they reacted. It seemed to us that these sorts of conversational materials were useful in exploring not only the technical nature of conversational remembering, but also the *what* and *why* of everyday remembering: the criteria of memorability, and its situated, context-orientated nature. In a further study (Edwards & Middleton, 1986b) differences between oral and written records were analysed in terms of the different mnemonic conventions of informal talk and written text. As before, discourse emerged as no neutral medium for displaying the workings of memory. Rather, the precise form, content and occasioning of version production again appeared important, with implications for the psychology of language and memory, and in particular, for the now strange-seeming use of written materials (designed to serve as re-consultable records) in many studies of unaided recall.

These explorations of laboratory conversations, despite that restricted location, pointed strongly to the importance of the functional settings within which accounts are produced, and to the crucial importance of personal stake, and social occasions, in the production of versions of events. We moved towards examining talk in more worldly contexts, such as families at home (Edwards & Middleton, 1988), Morris dancers at work/play (Middleton, 1987), paediatric assessment groups (Middleton, 1988), and school classrooms (Edwards & Mercer, 1987, 1989; Edwards, 1992). At the same time, these explorations of discourse and cognition expanded their methodological and theoretical horizons to meet new developments in text orientated social psychology, specifically the study of rhetoric and ideology (Billig, 1987; Billig, *et al.*, 1988), and the promotion of discourse analysis (Potter & Wetherell, 1987), all of which came together around this time at Loughborough University.

Studies of conversational remembering in families, in schools and recently in the context of elderly "reminiscence" groups (Middleton, Buchanan & Suurmond, forthcoming) share a concern with how conversation provides a forum for the creation of collective rememberings (Middleton & Edwards, 1990b). Invariably these rememberings have a strong institutional, and ideological component. In schools, the detailed discursive practices of describing, summarising and re-capping what has been done and learned, emerge as opportunities for casting classroom experiences into the conceptual forms understood by teacher and curriculum (Edwards & Mercer, 1987, 1989; Edwards, 1992). Educational processes, studied discursively, are revealed as practices for the enculturation of children into received modes of thought and talk, including the definition of what has ostensibly been "learned from experience".

In families, studied via their conversations around holiday snapshots (Edwards & Middleton, 1988), talk about past events and experiences also displays the general features of discursive remembering outlined in the Model. And as with school classrooms, features of event description, factual warranting, rhetoric and accountability are referenced to the particular social actions which the talk performs. These include children's expressions and rationales of sibling rivalry

Son: (to his sister) You were damaging my things weren't you?... I wish Katie wouldn't touch my metal spade.

Mother: Why not?

Son: It's dangerous for her.

and parents' efforts at socialising them into a more friendly appreciation of each other:

Mother: That's nice. You look as if you're talking to Katie.

Son: Ugh. Don't.

(*ibid*: 17).

The conversations were rich in exchanges of personal significances, emotional reactions and elaborations of recalled events. Discursive rememberings were clearly very much an integral part of formulating a sense of identity, of one's place in the family and the wider world. But rather than seeing these formulations as *reflections* (or evidence) or some underlying psycho-social development, they are analysed in their contexts of occurrence, as actions that assert, defend and resist such things.

"Reminiscence" is a process that has recently been promoted, but also denigrated, as therapeutic or beneficial for elderly people. It involves engaging in conversational remembering, often of events in the participants' distant past. Rather than evaluating it in terms of its measurable cognitive benefits to individuals, Middleton *et al.*, (forthcoming) examine the process as a forum for "re-remembering" (becoming members again). The emphasis is on how participation in such sessions provides for the development of communities of memory, which act as contexts for maintaining, reworking and renewing feelings of belonging and group allegiance. Like earlier work on institutional group remembering, it develops a critique of individual-orientated models of memory, and shows the value of tracing rememberings as they develop through time (from session to session: cf Edwards & Mercer, 1989), and of examining the socialising context of such rememberings, while emphasising the importance to participants of being able to develop a "first person right to speak as author of your own account" (Middleton *et al.*, forthcoming). Clearly the discursive perspective, when developed in the context of practical settings such as this, brings with it a re-orientation of research questions, assumptions about what is important, and methods of evaluation.

The Discursive Action Model was developed most directly to deal with relations between event descriptions and causal inferences in some studies of public political discourse (Edwards & Potter, 1992a, b, c; Potter & Edwards, 1990, forthcoming). These events were ones whose proper description was a matter of disputation between participants; they included a meeting between Chancellor Lawson and a group of journalists, in which he was reported (but denied) stating that pensions would no longer be universally paid, but would depend upon means testing. Analysis focusses upon the ways in which what was said at the controversial meeting was differently formulated by Lawson and the journalists, how the factual accuracy of each account was established and undermined, and basically how descriptions of events were explicable as a function of the interactional "work" they were designed for. A second set of materials stemmed from Lawson's later resignation, and the different accounts of this offered by the then Prime Minister (Mrs Thatcher) and by Lawson himself. These materials offered a rich vein of discursive event reporting, publicly available in newspaper reports, Hansard (the official Parliamentary record) and interviews on television and radio.

While one of our interests was in the details of event reporting, it was clear that, for participants, there was a great deal of interactional business at stake in the establishment of "what happened". The Discursive Action Model clarified important aspects of these materials, where rhetoric, competing versions, the work needed to establish one version over another, and issues of accountability for

actions and reports (what social psychologists call "attributional" issues) were integrally related, and openly available for analysis. But the very clarity and suitability of these kinds of materials for a "discursive" approach can easily be inverted, and needs to be addressed: is this not merely a study of political rhetoric, of obviously contentious stuff voiced by just the kinds of people (politicians and journalists) that nobody should simply believe, and therefore a study that either distorts or lacks relevance to a theory of ordinary remembering? To the contrary, we would argue that the kinds of rhetorical concerns that these materials evince are ones that are pervasive in ordinary discursive remembering, and integral to any psychology of what is going on when people produce versions of events. What is artificial is the abstraction, widespread in psychology, of disinterested, reproductive recall.

In fact, there are studies of the cognitive workings of memory which rely upon similar kinds of materials, notably Neisser's (1981) analysis of John Dean's testimony to the Watergate hearings. The dispute between Lawson and the journalists was even dubbed "Lawsongate" in the press because of such parallels, and our discussion of those materials begins with a re-examination of Neisser's study. The discursive perspective shows how Dean's testimony is *designed to accomplish* authenticity and accountability, rather than being a man's best (but flawed) efforts at accurate recall (Edwards & Potter, 1992a, c). But even outside of politics and legal cross examinations, these issues of rhetoric and accountability prevail. We have found them at work in families' descriptions of events on holiday (Edwards & Middleton, 1988), in reminiscence in the elderly (Middleton *et al.*, forthcoming), in teachers' and pupils' reconstructions of what supposedly happened in a science lesson (Edwards & Mercer, 1987), and they abound in informal conversational materials of all kinds, where versions of events are produced (Wooffitt, 1991; Heritage, 1984). And if studies of "autobiographical memory" (eg. Rubin, 1986) were based upon spontaneous, situated accounts of people's lives, we would expect to find them there too.

Let us take two familiar kinds of remembering, which occur both in laboratories and in ordinary talk, and see how a discursive approach would deal with them: verbatim recall, and memory for gist. Verbatim recall is almost uninteresting from a cognitive experimental viewpoint, where memory is defined by its limitations; if people can accurately recall everything that you give them, then you need to adjust your experimental conditions until they cannot. In ecological studies, it is noted that verbatim recall has an important but restricted set of uses, such as in rehearsing prayers, anthems, songs and poetry (Rubin, 1977). In ordinary talk, however, verbatim recall emerges not so much as a type of, or limitation on, memory, but as an option via which speakers may choose to display their remembering as veridical and authentic, and also to manage accountability and "footing"; these are her words, not mine. Wooffitt (1992) shows how direct quotations are produced, even where their accuracy is highly unlikely, as a device that *warrants* accuracy (as it did for John Dean), and attends to the speaker's reliability in the face of reporting doubtful events. It is part of a more general discursive phenomenon, in which particularly graphic description, and detailed narrative reporting, are deployed as devices that provide a believable backdrop for a report's more contentious content (cf Middleton *et al.*, forthcoming). Both John Dean and the Lawsongate journalists resorted to this kind of practice, in the face of doubt, denial or cross examination (Edwards & Potter, 1992c; Potter & Edwards, 1990):

I can very vividly recall that the way he sort of rolled his chair back from his desk and leaned over to Mr Haldeman and said, "A million dollars is no problem". (quoted by Neisser, 1981: 18).

Mr Lawson sat in an armchair in one corner, next to

a window looking out over the garden of No 11 Downing Street. The Press Secretary, Mr John Gieve, hovered by the door. The rest of us, notebooks on our laps, perched on chairs and sofas in a circle around the Chancellor. It was 10.15 on the morning of Friday, 4 November... (*Observer*, 13 November)

Just as verbatim and detailed descriptive reporting can be analysed for their discursive construction, their pragmatic organisation and placing, so also can "gist". In cognitive experimental studies, gist is defined methodologically, by the experimenter, as a story's basic structure, a set of propositions, a basic script, or set of idea units. Or it is defined as a feature of memory, as the essential, semantic content that is cognitively abstracted and recalled. In discursive psychology, gist is (or would have to be) a participants' category, where adequacy and accuracy are relative to the business at hand. For example, we can compare the cognitive psychological notion of gist with the conversation analytic notion of "formulations", which are conversational events where an earlier sequence of talk is summarised (Heritage & Watson, 1979). Typically, such formulations are not neutral summaries but are designed for specific upshots relevant to future actions. For example, Greatbatch (1986) shows the way television interviewers use formulations of what the speaker has just said as a way of packaging critical points without departing from an accountably neutral stance.

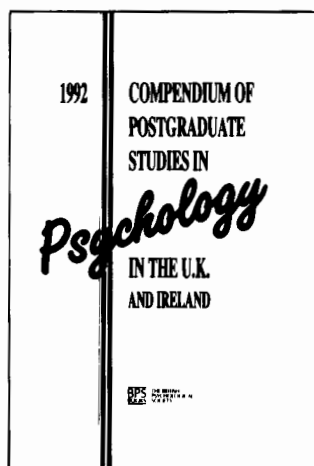
This is equally true of institutional contexts. For example, the reconstructive recaps of classroom lessons, of activities, findings and conclusions, are effectively "gists" that reformulate capricious and problematical classroom events according to their official and originally planned outcomes (Edwards & Mercer, 1989). In contrast, Bogen and Lynch (1989) have studied how in court, interrogators often "go back over" testimony with a witness, providing opportunities for developing inconsistencies and counter versions that might undermine it. Of course, in ordinary talk the "input" is not, or not all, text to start with: so we are back to the problem of *description*. For John Dean, the business at issue was not merely the recall of talk, but of events, persons present in a room, documents, times and dates and sequences of actions, all to be synthesised into verbal testimony. The cognitive psychology of textual comprehension and memory is full of the effects of intervening processes involving imagery, mental models, causal inferences, etc., even when the task is that of going from textual input to textual output. But once we enter the everyday realm of "cross-modal" remembering, where events have to be *put into* words, then we are confronted even more clearly with the nature of talk as description. It then makes empirical sense to study *actual* reports not in terms of their correspondence to some real set of events, but in terms of the situated actions they perform, on the occasions of their use. It is misleading to talk about accurate gist in any decontextualised way, abstracted from the situated pragmatics of talk.

Although we have resisted the idea that discursive remembering is "not really memory", there is some basis to that objection. Our resistance is to the abstraction of a cognitive memory faculty, founded upon linguistic representations, from the everyday practices in which versions of events are produced. But a discursive approach to psychology is not limited to the topic of memory. Other psychological topics which have been approached in this way include concepts and categorisations, attitudes, causal attributional reasoning, self and gender (eg. Potter & Wetherell, 1987; Edwards, 1991; Edwards & Potter, 1992b; Potter & Edwards, 1990). The study of discursive "remembering" is an arbitrarily demarcated part of a larger enterprise, in which many kinds of psychological issues can be examined as discursive practices. If this seems like an objectionably one-way flow of

explanatory traffic, then perhaps we should indicate how the direction might be reversed. It is perfectly intelligible for cognitive psychologists to claim that none of this discursive action would be possible if it were not for a set of underlying cognitive *competences*. That is quite so, but they are not the ones that many current models of memory seem to offer. To specify the competences underlying situated discursive actions would require investigating the systematic nature of situated discourse, and that is the empirical programme that discursive psychology offers. It is quite different from efforts to remove from the contexts of their ordinary production, a set of disinterested event representations, treated as definitive best efforts as recall, and forming the basis of a psychology of what and how people remember.

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On

Edwards, Potter & Middleton's account of Discourse Analysis of Memory

Is memory all talk?

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ONE OF the many pleasant features of a recent visit to the U.S. was to discover some of the intriguing work being carried out in social psychology, and to realise how close it is to my own interests in cognitive psychology (Gilbert & Osborne, 1989; Swann, 1990). I therefore viewed with some enthusiasm the prospect of learning about the views on memory of social psychologists rather closer to home. The paper by Edwards, Middleton and Potter has two strands. The first is concerned with a description of the work that they themselves are carrying out, and the second is a comment on what the rest of us in memory are doing. I shall discuss these separately.

Edwards *et al.* appear to be primarily interested in remembering as a tool for studying interpersonal interactions, with "how versions are produced... and what interactional business participants accomplish by constructing their descriptions in one way rather than another" (Edwards *et al.* p.441). Furthermore, they seem to be particularly preoccupied with linguistic factors, with "the ways in which things and events are put into words" (p.442).

These are interesting and important topics, and while they are not by any means novel considerations within even conventional memory texts, they are typically not regarded as the central concern of the memory theorist.

The only clue we are given to theory is that it is based on "the broader principles of discourse analysis, rhetorical and discursive psychology" (p.443). The only instantiation of such theory comes in a model of remembering, which has a rather curious sequence of "principles", including the need for there to be "a dilemma of stake or interest" and that "versions are rhetorically designed to undermine alternatives". Finally, a few brief examples are given, and we are told that the approach has been applied to families at home, in school classrooms, in pediatric assessment groups, and to Morris dancers at work and play.

What emerges then is that the authors are interested in the social interaction between members of groups, and its verbal expression, and that they find remembering a useful topic for generating such interaction. Hardly a model of memory, but potentially a very interesting topic. It is also of course a very difficult topic to study well, because of the very richness and complexity which they describe. Are they making progress, or simply producing common sense dressed up in jargon? From the evidence presented here it is impossible to tell.

Good new methodologies are always potentially valuable, so I would have been interested to know what goes into the analysis they briefly mention. Does everyone who analyses the same material come up with the same answer? If not, how do they decide which is the better

answer? Are all answers equal along the lines of the spurious old argument that since no answer is perfectly true, all answers must be equally false?

To take a specific example, does their analysis of the Nigel Lawson interview allow them to tell whether he was honest and accurate, honest but forgetful, or lying through his teeth? Or perhaps their analysis regards these as equivalent?

Unfortunately, instead of telling us about the work that they pursue with such enthusiasm, they chose to take the remaining space to say what was wrong with the way in which cognitive psychologists study memory. Such an enterprise could have been very helpful, but unfortunately requires more knowledge of cognitive psychology than these authors seem to possess.

Quite rightly they raise the "important question of what kinds of everyday cognitive performances the study of memory is supposed to tell us about" (p.442), apparently concluding that the main function of memory is to allow people to chat. Might I refer them to Baddeley (1990), chapter 1 entitled "Why do we need memory?", where I tackle this issue by looking at the everyday functioning of a patient who has been unfortunate enough to become densely amnesic. Such patients are indeed handicapped, being unable to leave the house without getting lost, being unable to maintain their ongoing identity, being unable to follow the plot of a film, or keep track of sport on television, and for the same reason unable to read and enjoy books, what one patient described as "a living hell". They are however still able to chat, although tend not to be the most riveting of conversationalists.

Edwards *et al.* seem preoccupied with the importance of language. I suspect this may be because this is the most obvious feature of the sorts of situation they study, but it does lead them to exaggerate the importance of linguistic factors. They argue for example that the distinction between long- and short-term memory is a linguistic one. Here they are confusing the way in which a model is usually conveyed with its intrinsic characteristics. The model is in fact frequently expressed visually, or sometimes mathematically. They rightly observe that information processing studies often use verbal material. For some strange reason they assume that the approach pays a "heavy price" for this, since "such uses of language seem rather peculiar uses of language!" (the exclamation mark is that of Edwards *et al.*) (p.442). Indeed, most science is "peculiar" in that it attempts to constrain everyday reality in order to study it, and describes it in a rather specialised language. One would however, surely not criticise the science of chemistry as being "peculiar" because it deviates from the more everyday applied chemical craft of cookery.

In fact, as any cognitive psychologist could have told them, a great deal of the study of memory is precisely concerned with avoiding confounding memory with the language in which a particular recollection is phrased. The whole of the encoding specificity controversy, can for example, be interpreted as being concerned with the need to separate the nature of what is remembered from the specific words presented and reproduced (see Baddeley,

1990: 285). To return to the clinical sphere, it is certainly not the case that one tends to confuse aphasia and amnesia, and a standardised memory test such as the Rivermead Behavioural Memory Test can, with relatively minor modifications, be used for patients with language problems, or indeed perceptual problems (Cockburn *et al.*, 1990a, b).

We are told that cognitive psychologists always require memory to be measured against past known events. While it is desirable if one can do this, where this is not feasible, other techniques are devised, such as the Autobiographical Memory Interview (Kopelman, *et al.*, 1990), in which it is rarely practicable to check the accuracy of a patient's recollections. Kopelman did however go to considerable lengths during the standardisation of the test to cross-check with relatives the factual information that forms the most stable part of the test. He found that even patients suffering from amnesia or dementia rarely produce false information, being much more inclined to admit that they just can not remember. That is not of course to say that they would not have produced less reliable "memories", given a different social situation, nor that such data would be intrinsically uninteresting. It would however be rather less helpful in assessing the memory capacity of a damaged brain, an issue of no less importance than that of the social factors on group discussion.

In conclusion then, while I do not yet propose to give up cognitive psychology, I am intrigued to know what Dr Edwards and his colleagues have been finding out about groups reminiscing. While rhetorical articles may be very stimulating, next time it would be nice to know just what they have found out, how they interpret it and why.

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The lures of ecological realism

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UPON HEARING that Mr Weintraub's artificial intelligence program had succeeded in fooling some judges about the species they were conversing with, the proprietor of a neighbourhood store, Guido's Fine Foods, commented "If it's artificial how good could it be? ... We don't sell artificial things if we can help it." (*New York Times*, 16 November, 1991). No plastic pastrami, no plastic intelligence. While there is no reason why Guido's corporate knowledge of fine food should extend to understanding the Turing test, it is embarrassing when similar views about the artificial are expressed by scientists.

Edwards, Middleton and Potter are concerned about ecological realism, identified by a confusing dichotomy in the first paragraph: There are those who measure memory using controlled procedures, and then, there are those who care about the way memory really works. For the latter group, is the method of discourse analysis, which in this paper at least, appears to be a list of values about relativ-

ism. Underlying the commandments (eg. Read the stories of the subjects; Do unto action as you would do unto cognition) is Edwards *et al.*'s annoyance that the features of everyday remembering are just not reflected in experiments about remembering. My reactions will sound familiar (Banaji & Crowder, 1989, 1991) but bear repeating in the context of this paper.

Hypotheses about the nature of psychological phenomena can be derived from *any* source (a revelation from God, the wisdom of a character in a bad novella; see McGuire, 1983 for 44 techniques to generate a hypothesis). Tests of hypotheses, (alas, the fun is over for some) must proceed quite differently. If you cast your lot with the empiricists in the seventeenth century, and feel a thrill at the trouncing of the rationalists, then, the study of memory in the twentieth century imposes a simple criterion to determine the truth of a hypothesis: Systematic, controlled observation yielding replicable results. Can discourse analysis provide such data? If it is a sort of content analysis (which it appears to be) it might provide useful data about the quality of stories that people generate (we can even count the number of times in a "spontaneous" outburst, a subject mentions *death* or *life*, for example). But it cannot tell us about memory. Having no control over conditions of input cannot inform about output. Unlike Edwards *et al.*, I was unaware that this was a matter for debate. As for "studies of memory, which define it as information processing" (p.442), what else can it be?

To give up controlled observation because its practitioners excluded classes of variables that intrigue other investigators is to throw the baby out because it has a cold. For example, experimental research on the social psychological influences on memory addresses questions of the sort that Edwards *et al.* would agree are high in ecological realism. Or, does the experimental method, by definition, disallow ecological realism? The choice of a method should be guided as much by the importance of the question it is designed to address as the tractability of the method itself. It is difficult to imagine the viability of discourse analysis as a method for memory research.

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Creating a new rhetoric for the psychology of memory

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EDWARDS, Middleton and Potter are creating a new rhetoric for the psychology of memory by redefining the phenomena to be studied, the research methods used and, consequently, the types of theories we will have about memory in the future. They are not proposing the replacement of the study of memory as a faculty; instead, they are offering a broadened conception of memory from a functional perspective. Their questions are driven more by a concern for how memories are used than in the internal structures of mental representations and knowledge ac-

quisition devices.

According to Edwards *et al.* we should shift our attention solely from a conception of memory as a capacity, indexed operationally by the deviation between what was input and subsequently output - thus leading to a theory of forgetting rooted in the assumption that memory is a faulty reproductive system, to a conception of memory emphasising how important a sense of the past is to the person in the present. This conceptual shift would lead to a theory of remembering as a motivated reconstructive process which yields emergent memories characterised by variability in what is remembered (output) because of sociocultural, historical, psychological or emotional-contextual effects.

Signature features of a discursive psychology of remembering are that remembering is *motivated* (purposeful) in the present, it is largely a *social and collective activity* that establishes and maintains community and a sense of an existential self in, for example, families, schools, and peer groups, remembering is a *contextualised activity*, and that *language* plays a central role in remembering since "...[language] exists as a domain of social action, of communication and culture, whose relations to an external world of events, and to an internal world of cognitions, are a function of the social and communicative actions that talk is designed for" (p.442). Again, this last feature brings into sharp relief Edwards *et al.*'s functional perspective in that they are not asking questions about the nature of language; they are concerned instead with how language is used.

From a cross-disciplinary perspective, Edwards *et al.*'s rhetoric shares a family resemblance with that in other fields, especially critical social theory. In particular, critical social theory is concerned in part with an examination of how disciplines like psychology shape arguments, and what forms of argument become socially acceptable (i.e. the scientific method). I suspect that Edwards *et al.* will meet resistance within the discipline of contemporary (experimental) psychology since a mark of "good" science here is the minimisation of Type I error - a consequence of a concern for the nature of memory as a system internal to the person; whereas Edwards *et al.*, while concerned with certainty, are also concerned with the authenticity of the phenomena they study, and the sociocultural, historical and political implications of how remembering is used. Their efforts to create a new rhetoric in psychology are not revolutionary but complementary to the much of the knowledge we have already gained about the nature of memory.

I welcome the work of Edwards and Middleton and their colleagues: they are articulating, and providing interesting evidence that is renewing to the study of memory and remembering. From my perspective, asking what remembering is for is as important to an understanding of the human condition as asking about the nature of the neurological structures and neurochemical processes from which remembering emerges.

Comments on "Toward a discursive psychology of remembering"

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EDWARDS, Middleton and Potter argue that discursive remembering - spontaneous descriptions of past events occurring naturally in a social context - is an important aspect of memory which has been unjustifiably

neglected by traditional studies. They contrast discursive remembering with the kind of memory which is tested in laboratory experiments - the ability to reproduce designated material, such as word lists, accurately on demand. They point out that, although the experimental method enables us to isolate memory operations; to identify constraints and capacities; to formulate general principles and to build models of memory systems, its weakness is that these theories may not apply in natural everyday settings outside the laboratory. Discourse analysis, on the other hand, yields data rich in practical applications and functional significance. This is a misleading polarisation of methods of memory research. There are many examples of work on everyday memory which simulate natural settings but are combined with some experimental manipulation. These studies are intermediate between formal laboratory methods and strictly non-interventionist techniques of discourse analysis, and, arguably, retain some of the advantages of each.

Edwards *et al.* resist the objection that discursive remembering is not "really memory", but in fact, though the memory element may be "real" enough, it is only a very small component of the behaviour being analysed. Language skills, emotions, goals and intentions, past experience, world knowledge, intelligence and personality, the context of the report, audience design and social interactions are all influential determinants of how an event is described. These factors may override and obscure the role of memory. Furthermore, with a non-interventionist technique, the impossibility of disentangling these factors severely limits the extent to which general conclusions can be drawn. The minor part played by memory is particularly obvious when the issue of veridicality arises. For the experimental approach, accuracy is crucial, but from the discourse analysis perspective, accuracy is irrelevant; what is important is the effect a report has on the hearers rather than whether or not it is a true version of the original event.

It is difficult to avoid the conclusion that discourse analysis tells us a lot about social communication but not much about memory. Nevertheless, its usefulness can be convincingly demonstrated when we consider research on the effects of aging on memory and language. Experimental tests of memory in the laboratory have shown that memory capacity declines with age, and that many aspects of language production and language comprehension are also affected. However, Coupland and Coupland (1990) have argued that the experimental methodology gives rise to the *deficit paradigm* in which research is biased by expectation of decrement and deficits receive undue emphasis. Discourse analysis techniques reveal that deficits are much less evident in naturally occurring conversation. When memory is supported by the context of the conversation and by the cues and prompts supplied by other speakers the performance of elderly people is adequate and communication is not necessarily impaired in effectiveness. So discourse analysis indicates limits to the scope of the conclusions drawn from the experimental findings and acts as a corrective to the deficit paradigm. Discourse analysis also reveals age differences in the style and content of discursive remembering, such as the tendency of old people to focus on painful episodes from the past (Coupland *et al.*, 1988) which are not predictable from measurement of memory ability in the laboratory. These kinds of observations have practical implications for training the communication skills of carers and for the design of therapy programmes. It should be clear enough by now that we need not argue about which approach is right, or which is best, but should accept that different research methods can complement each other and contribute in different ways to the psychology of memory.

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Why isn't discourse analysis more popular in the study of memory?

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EDWARDS, Middleton and Potter's article makes much of the obvious fact that remembering in everyday life occurs in social contexts: people often recollect past events during conversation with other people. We also know that the way memory is studied by cognitive psychologists almost always involves individual subjects recalling in isolation. In such situations there is no dialogue, and therefore no opportunity to observe and study interesting and potentially important phenomena like the negotiation of an agreed version of events. I wholeheartedly agree with Edwards *et al.* that cognitive psychology's preoccupation with the study of the individual is unnecessarily restrictive. If their article succeeds in encouraging more researchers to investigate remembering in social contexts, and more specifically, how people construct joint recollections through conversation, this will undoubtedly be a step in the right direction. However, Edwards *et al.* go further in suggesting that the standard approach of cognitive psychology is based on a false and misleading view of memory and that memory can only be properly investigated through the application of discourse analysis methods in natural settings. I wish to argue that these aspects of their proposals should be very strongly resisted, and that, whatever the merits of discourse analysis, it is fundamentally limited in its scope as a tool for studying memory.

The most obvious limitation is the inapplicability of discourse analysis to recollection that is not expressed through language. For example, a major concern in research on eyewitness testimony is to investigate methods of obtaining a visual description of a remembered face as an alternative to a verbal description (see e.g. Christie & Ellis, 1981). This is especially important in the light of evidence that giving a verbal description of a face can impair subsequent recognition (Schooler & Engstler-Schooler, 1990). In general, discourse analysis cannot tell us anything about memory for those aspects of experience that cannot be put into words. Nor, for obvious reasons, can discourse methods be used to investigate memory in early childhood or memory in people with severe language disorders. Cognitive psychology can address these issues as well as being applicable to the study of social remembering through discourse, as I suggest below.

A second very obvious limitation of discourse analysis arises from its insistence that memory be treated as a socially constructed phenomenon. While it may be useful to acknowledge that all remembering takes place within a social context, most people would accept that recollection is often private. For example, when picking up a novel we usually try to remind ourselves of the plot from last time, or when doing the shopping we may need inwardly to rehearse the list of purchases, and so on and so forth. Remembering of this sort does not entail public exchanges amongst individuals of the kind that seem to be demanded by the discourse approach. Why should private recollec-

tion be arbitrarily excluded from the study of memory? It seems a strange methodology that would do so.

A third and in my view disastrous restriction on discourse analysis as applied to memory is its commitment to the idea that remembering past experiences must necessarily be studied without reference to external events. Relativism of this sort can of course be defended on certain philosophical grounds, but from a purely pragmatic point of view it has the distinct disadvantage of simply removing a number of interesting questions from the research agenda. For example, we want to know the likelihood that the testimony of an eyewitness is a reliable indication of past events and we want to have objective assessments of the extent of memory failure in disorders like organic amnesia. We cannot simply give up attempting to answer practically important questions of this sort just because they do not fit comfortably within a particular analytic framework. Far better, choose an approach that allows some progress.

In my view, Edwards *et al.* have presented a false and rather strained antithesis between cognitive psychology on the one hand and discourse analysis on the other. Although their aim is clearly to provoke controversy, I suspect there is no great debate here, simply different groups of researchers pursuing very different questions about memory and largely ignoring one another's contributions as irrelevant. I am left wondering why proponents of discourse analysis are apparently so resistant to the simple idea that instead of providing a fundamental challenge, cognitive psychology offers a complementary level of explanation that may turn up useful clues as to what is going on in conversational remembering. For example, Peter Meudell and I have found it informative to relate the outcome of collaborative recall to the knowledge available to the contributing individuals (Meudell *et al.*, in press). This in turn has led us to consider such questions as whether one person's recollections can act as retrieval cues for another person and whether we can identify cognitive processes within individuals that mediate their reaching agreement on a joint report. In our view the methods and concepts of cognitive psychology are not only relevant to understanding collaborative recall but have a vital part to play in analysing how it is achieved. There is a real danger that, by so grossly overstating the advantages of discourse analysis as applied to memory, Edwards *et al.* will not inspire many of their readers to reconsider their own ideas. I hope I am wrong on this point since I agree with them that remembering through conversation ought to be of interest to all students of memory, not just a few investigators of a particular theoretical persuasion.

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Multiple approaches to remembering

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THE DISCOURSE Analysis (DA) approach to memory promises to enliven and broaden the scientific discussion of remembering. Edwards, Middleton and Potter correctly pointed out several weaknesses of traditional

memory research, including: the problem of multiple acceptable versions of a remembered event; the lack of a tight link between any one version and underlying structures; and the consequences of translating experienced events into linguistic stories. They suggest that DA bypasses these difficulties by focussing on the activity of remembering rather than some hypothesised mental construct called memory.

In focussing on the activity of remembering, DA opens memory research to a variety of underexplored issues. DA is primarily concerned with the contents and organisations of each telling, how each is created, and the retrieval context variables that influence reconstruction. It turns attention to the functions that remembering serves - particularly social functions. Description thus becomes valued equally with hypothesis testing and there is the opportunity to ask new questions about remembering.

The approach suggested by Edwards *et al.* is not, however, without its faults. In turning away from traditional questions they have abandoned traditional methods as well. They apparently want to replace psychology's "Physics Envy" with an equally unhealthy case of "Deconstructionist Envy". Their research approach has been a series of case studies (Edwards & Middleton, 1986a; 1986b; 1988; Edwards & Potter, in press). While all are interesting and insightful, it may be time to demonstrate the causal link between context and remembering by controlling and systematically varying context. In addition, DA relies on drawing specific examples from a memory transcript as support for an argument. There is seldom quantification of remembering behaviours, presentation of a coding system with a reliability check, concern for whether examples are representative, nor acknowledgement that researcher biases may cause some behaviours to be overemphasised while others are ignored. This style of research could lead to the discourse of memory research becoming simply the presentation of a researcher's ideas with examples. Granted, the argument can be made that such is currently the case - that reports of research are all dictated by researcher biases. This view relies, however, on the assumption that all data are equal; a questionable assumption. Instead, findings can be viewed as part of a continuum of data, ranging from controlled experiments to personal observations. The weakness in Discourse Analysis is its failure to incorporate the strengths of scientific rigor with respect to its methods and data description.

I do not, however, see Discourse Analysis and traditional memory research as being incompatible - in fact, a hybrid of the two approaches may be the strongest course for psychology. The addition of traditional methods (particularly research design and the quantification of textual data) to DA will allow researchers to make more confident claims about the content of tellings and how the situation constrains remembering. The systematic investigation of context may suggest that while there may be a nearly infinite number of event retellings, in practice the number is more manageable - evidence that original events and the memory system constrain remembering as much as retrieval context. The expansion of traditional memory research to include DA questions should increase concern with the contents of memories and provide multiple views of the underlying content, structure, and processes of memory. Thus, Discourse Analysis will broaden the field of relevant questions and reintroduce a concern with description in memory research.

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The psychology of memory and the sociolinguistics of remembering

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LOCATED as it is on the shifting boundary between the physical and the social sciences, psychology is often attacked from both sides. The physical reductionists think that nothing really important exists except the brain; the social reductionists think that nothing really human exists except culturally-structured interactions. From one perspective, the individual dissolves into a galaxy of nerve cells and neurotransmitters; from the other, persons are deconstructed into shifting roles, linguistic habits, and politically-motivated presentations. Neither side is interested in the traditional subject matter of psychology: why do individual people do the things they do?

The study of memory is the latest case in point. Those who take the biological approach are only concerned with how and where information is stored in the brain. They do not care about what actual people remember: whether John Dean's testimony was accurate, for example, or where the errors came from if it was not. On the other side we now have Edwards, Middleton, and Potter (1992), who do not care either. For them, the aim of remembering is not to report past facts but to establish present ones ("reality as outcome, not input to event construction," p.442). They use John Dean as an example, just as I did in an earlier paper (Neisser, 1981), but what they think we should study is "... how Dean's testimony is *designed to accomplish* authenticity and accountability" (p.445, italics in original). It doesn't matter what Dean actually remembered: they only want to understand the social consequences of his language. This may be discourse analysis, but it is not psychology.

Can these two disciplines co-exist? Edwards *et al.* think not: "The study of discursive remembering even casts doubt on the possibility, and theoretical coherence of such a thing" (p.442). They are classical behaviorists, trusting in nothing except overt action. It seems to me, however that (if we have to choose) the opposite view is more nearly correct. The study of discursive remembering is hardly possible or theoretically coherent without some notion of memory *per se*. Why didn't Dean make even stronger claims in his testimony, eg. that President Nixon had said "Let's cover this thing up?" My guess is, because he did not remember any such remark. To be sure, this would not have inhibited everyone. Baddeley and Wilson's (1986) confabulating amnesic "RJ" remembers very little, but often gives articulate and convincing accounts of events that never happened. RJ's skills of social remembering are intact; if we applied discourse analysis to those skills alone, we would never learn that he deploys them with no basis in fact. Describing the structure of discourse is just no substitute for the study of how normal people remember - and misremember - real events.

Nevertheless, Edwards *et al.* do raise at least two issues that have been too long neglected by cognitive psychologists. The first concerns the multimodal character of remembering: events that were originally seen or experienced are often later recounted in words. Cognitive theories have had little to say about the transformation from perception to lan-

guage, which is required even when we describe a scene that is immediately before us. The second, of course, is their emphasis on the social function of recall. This is particularly important because function is often a clue to process. Just as J.J. Gibson's (1979) ecological analysis of perceiving has broadened our understanding of the mechanisms of perception, so a sharper focus on the exquisitely social functions of memory may yet help us understand how information is actually stored and retrieved.

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Comments on "Toward a discursive psychology of remembering"

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EDWARDS, Middleton and Potter are clearly right in their assertion that rhetorical and pragmatic factors shape reports about prior experience. But showing that memory reports covary with recall contexts does not logically require abandoning a representational theory of memory. First, there are other forms of remembering than the discursive type discussed by Edwards *et al.* Jacoby's research (eg. Jacoby, 1988) shows that prior experience has very specific effects on perception that may not be registered in awareness. These effects are induced by specific events not mediated by generalised representations such as schemas. Involuntary recall of traumatic experiences such as the flashbacks of combat veterans or victims of sexual abuse seem also to be authentic reinstatements of experience. Second, it is widely accepted that the type of memory test as well as the context and purpose of recall can impact both what is reported, and subjective confidence. These encoding-retrieval interactions make it difficult to infer conclusively what is represented in memory, but they would be unintelligible without the assumption that something is retained/represented. Even conceptual knowledge is affected by retrieval conditions. Barsalou (1989) has documented instability in reports of properties and exemplars of categories, and proposes that retrieval factors can count for such instability. Most people know what a cat is, and they don't forget it, or reinvent their knowledge every time "cat" figures in their thoughts or actions. However, the aspects which do are likely to be the subset which are relevant to their current goals. Event memory can also be inconsistent across occasions and for similar reasons. It is likely, moreover that many acts of remembering modify the content and organisation of memory. The conclusion emerging from many kinds of current research is that memory may be less abstract and less thoroughly organised than was previously assumed, but the concept of memory representation is still indispensable. The discursive forms of remembering discussed by Edwards *et al.* are important and challenging, but they should not be treated as a prototype of all kinds of occasions of remembering.

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Discursive remembering: A brief note

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SCHOLARS interested in learning and memory can take numerous approaches to their subject matter. Some study the neurobiological underpinnings of learning in snails; others examine classical and operant conditioning in pigeons, rats, and other creatures; still others study seemingly higher order processes, such as counting and the learning of quasi-languages, in parrots, monkeys, and chimpanzees. A number of different traditions also vie for attention in the study of human learning and memory, although the dominant one historically has been the experimental analysis of learning and memory through laboratory experiments. Such intellectual ferment is healthy; the approaches may compete for attention and adherents, but can serve complementary functions in revealing the multifarious phenomena of learning and memory.

The Discursive Action Model (DAM) of Remembering advocated by Edwards, Middleton and Potter now takes its place among the approaches used to examine memory in humans. It fits in, broadly, with what is now called the everyday memory approach in which people's memories are studied in their natural contexts, as much as possible. The version of the theory presented here makes many interesting points and offers rife opportunities for further research. As such, we enjoyed reading it and welcome the novel aspects it brings to the study of learning and memory. On the other hand, we must note that currently DAM is little more than a promissory note of things to come, a sneak preview of coming attractions, perhaps. This approach may return rich dividends from the interesting, if speculative, ideas in the theory, but they are not yet ready to be paid. The appropriate analogy may be to excavating gold: a rich vein has been located, but as yet the hard work of mining has not begun.

In our opinion, this work will take three forms. First, rather than dismissing the so-called "information processing approach" to learning and memory, the proponents of DAM might examine it and profit from it. Some tenets of DAM that the authors seem to believe are startlingly new have large amounts of experimental evidence attesting to their validity.

One such is that "any event report is one of an indefinite number of possible reports" (p.441) and that "actual rememberings are always particular realisations from indefinitely many possibilities" (p.442). Fine ideas, but these represent commonplaces of the information processing approach, where this point has been documented many times in concrete demonstrations with prosaic lab materials. A person's level of expertise, the individual's psychological set or focus of attention, and the type of coding operations performed on events determine if and how events will later be recalled or recognised, or which of their aspects can be recollected (eg. Chase & Simon, 1973; Chiesi *et al.*, 1979; Craik & Tulving, 1975). Differential effects of encoding operations have been long studied with both verbal

and nonverbal materials (Lockhart & Craik, 1991). The concept of recoding, a focus of the information processing revolution of the 1950s (eg. Miller, 1956), captures this point, too, in part. Others have shown how the individual's preferences and proclivities will influence perception of events and consequently later remembering of them (Hastorf & Cantril, 1952). We hazard the guess that if its proponents became more familiar with traditional work in learning and memory, DAM would benefit, especially if they want to communicate it to experimental psychologists. For example, protocol analysis is a topic that seems directly related to Edwards *et al.*'s interests (Ericsson & Simon, 1984).

A second type of work we recommend is making the core ideas in the model more accessible to interested readers. We have tried several times to comprehend the nine tenets of DAM on page 442, but (even with the attendant discussion) fear that we have failed. The model seems so general that it excludes nothing; what observations would permit its test or evaluation? A central assumption is that "Memory is operationally defined as discursive reporting..." (p.443), but since reporting can apparently be most anything, we find the definition unhelpful in guiding research. At one point in our efforts to understand discursive remembering we looked up *discursive* in the *Oxford American Dictionary* (1980) and were informed that discursive means "rambling from one subject to another". Just so.

For most psychologists, the mettle of a theory is revealed in part by the clever methods that investigators bring to bear on it. This is the third aspect requiring work. The DAM approach offers rich opportunities here, in our opinion, because it places emphasis on interesting social variables that have been generally neglected by investigators of memory, even those coming at the topic from social psychological or everyday memory perspectives. If future experimental work shows interesting and powerful effects of these overlooked variables, then the approach may be judged a success no matter how vague (or even wrong) its tenets. An important function of novel ideas is to draw attention to new phenomena. However, the dividends are paid only from careful experimental analyses, at least in our book. The one concrete situation described in the target article to study discursive memory was a study "in which a group of eight people had been asked to remember everything they could about the film 'ET'..." (p.443). Of course, using this as a starting point sets up an artificial situation, because we doubt that in the normal course of events any group of people has ever gotten together explicitly for this purpose, any more than people would naturally join in a group to remember a list of words. But the artificial is fine with us; researchers must develop artificial analogues of events to subject them to study. In this particular instance, however, something was missing: an independent variable. The researchers apparently did not manipulate anything. Would different versions of the movie be differently remembered? Would different compositions of the group affect the process? Would different instructions prior to recollection affect the quality of the memories? And so on. The answer to each question is undoubtedly *yes*, but the interest for DAM or other theories of memory is how, exactly, this happens. Discovering this will require much work.

Edwards *et al.* make the interesting point (p.442) that "in an important sense...the truth of original events is the outcome, not the input, to the ordinary reasoning process that talk displays." Further, "in the study of discursive remembering, it is precisely the procedures by which definitive versions are produced, sustained, defended, bolstered, refuted, etc., by participants, that is the objective of investigation" (p.442). The emphasis here on events as reconstructed, without regard to original events, strikes us as problematic for students of memory. It is fine to study con-

versation and talk, *per se*, and the social processes that permit people to convince one another about the course of earlier events, but we believe it would be a mistake to ignore the earlier events. If there is no possibility of correlating later reports of events with some version of the events recorded more or less accurately at the time, then deep study of the interesting issues is doomed. Imagine if Neisser (1981) had studied John Dean's memory only through Dean's testimony in the Senate and without the tape recordings from the Nixon White House. We suspect that the conclusions drawn would have been less telling and less interesting, but if we correctly read Edwards *et al.*, they advocate the study of memory that would ignore (or at least de-emphasise) any correlation between recollections and any version of the original events. The ravings of a paranoid schizophrenic, providing (say) discourses on his capture by beings from another planet and his eventual return, would seem to provide worthy material for the discursive analysis of memory. We certainly agree that study of such phenomena would be interesting, but rather doubt that the psychology of memory will directly profit from it.

All this carping aside, Edwards *et al.*'s new approach raises interesting possibilities by noting overlooked factors affecting memory. We will watch the future of this new approach to remembering with interest. In our opinion, its development could lead to important new insights in the future.

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Remembering, reconstruction and rhetoric: A rejoinder

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THE REVIEWERS have raised a number of important points. Some are difficult to refute, not because they are a strong case, but because they make argument impossible. The idea that the information processing approach to remembering is self evident ("what else can it be?" - Banaji) displays a circularity of definition that is surprising in one so ostensibly committed to empiricism. Our arguments for discourse analysis (DA) tend to be glossed as simply another call for ecological validity, invoking all the usual responses to that, and/or as a naive precursor to a properly scientific, causal factors-and-variables approach to memory, as if this would be a merely methodological improvement. Memory is then preserved as a category of

mental life, with discourse defined as an environment, or a medium through which memories are expressed, or causally related to it; but memory "itself" stays much the same.

Formulations about what science is or should be like are a recurrent feature of these critiques, which is ironic given that one of DA's origins is in careful empirical studies of scientific texts and laboratory practices. Scientists' own accounts of their methods feature in a larger and more complex picture - often part of critiques and justification within scientific disputes, and with only a programmatic, normative relationship to actual practices (see Gilbert & Mulkey, 1984).

In response to the direct question on method, on how disputes between alternative discursive analyses would be resolved (Baddeley), they are resolved in the usual ways, through empirical analysis and argument. It is a feature of DA that raw material is presented and is available for re-interpretation; which opens it up for examination in a way that other methods often manage to avoid. The thing to do is to offer an alternative reading, and argue for it. Test it, try to show it is better, or no worse. This is exactly why "anything goes" is not the rule in science generally, any more than in DA - it is one thing to think up alternative analyses, but quite another to get them accepted. This approach has not been selected because of a disquiet with experimental work per se, but for its suitability in dealing with discursive phenomena. Where would astrophysics be today if it had been restricted to experimentation? And journals will surely be just as receptive of failed replications as they are, famously, of ones in experimental psychology. In fact, critics seldom offer actual discursive reinterpretations; usually it is only the threat or possibility of them that is raised.

One recurrent criticism is *categorical* - the notion that we are falsely claiming that memory is "all talk". We are not. Its converse is the idea that we assume conversation (or "chat") to be coterminous with remembering. That is not right either. We agree that there is more to talk than remembering and more to remembering than talk. In fact, one of the things we have emphasised ourselves is that some phenomena that have been shown to occur in textual remembering are better thought of as discursive rather than strictly mnemonic, since they occur for descriptions, even in the absence of any condition requiring recall (eg. Edwards & Middleton, 1986). Indeed, there is evidence for the same process, in how various reviewers reproduce our own text as an argument for "social factors", or that memory is "all talk", or that "the main function of memory is to allow people to chat" (Baddeley). The object of our studies is not, in the first instance, "memory", but rather, description: how events are represented in ordinary discourse. Much is now central to memory studies that once was not, including the kinds of semantic processing that Ebbinghaus initially sought to control for and remove; Bartlett argued for expanding the concept much further, and Neisser has more than once defined its proper scope.

What we are saying is that studying how people ordinarily talk about events brings into focus phenomena that should interest cognitive psychologists who are concerned about relationships between models of memory and ordinary discourse, to which such models presumably have some to-be-established relevance. It may well be, as Roediger and Wheeler argue, that there are parallels between discursive phenomena and familiar laboratory findings, and we are delighted if that is so, because it demonstrates just the kind of psychological relevance for our work that we are claiming. But it is by no means clear how those laboratory phenomena are *just the same* as those we have found, or how that sameness would be shown, beyond a very gross level of description. It is not at all clear that stake and interest, in the sense we have used these terms in relation to event reporting and accountability, is nothing more than "expertise", or "psychological set or

focus of attention," or that the situated and rhetorically organised variability of descriptions is equivalent to "differential effects of encoding operations". Ironically, these sorts of equivalence claims are the very stuff of discursive event reporting, where versions of events, such as what people have done or said, are produced in ways that lend themselves to rhetorical upshots, such as arguing that somebody's story is really just the same as, or else importantly different from, someone else's. So who is subsuming whom here?

What then *is* memory? Is it more than a psychologist's conventional category, something that has a "real" discreteness and coherence? Dr Baddeley's textbook, which he helpfully suggests we consult on this issue, points out that, despite the single term "memory" implying a unitary system, in fact "it is not one system but many" (1990: 4). Unfortunately, it is not then clear why it is treated as unitary enough to be a proper topic for a book, to the exclusion of others, let alone for criticising discourse studies for failing to deal with some of the nonverbal systems or components. We have not read everything Dr Baddeley has to say on the matter, but it could be that memory is simply an obvious category, a traditional or commonsense one even - after all, we do have an ordinary word for it. But that would be a discursive definition, a topic defined by common naming practices, and no basis for a post-commonsense science of psychology. The very use of the term "memory" as part of psychology's technical vocabulary implies that it possesses a coherent psychological, not just lexical, identity.

The categorical critique of DA insists that our topic is unmanageably vast and messy, full of peripheral and conflated variables, neither all nor only "memory". But the point of our "curious" model of discursive event reporting is to suggest that everyday talk about events does indeed possess a coherence and systematicity which does not respect the boundaries of "memory". And while it has little to say about biologically based capacities for visual recognition, it may well be relevant to models and explanations (such as those produced in AI, and for HCI - cf Suchman, 1987; Luff *et al.*, 1990) of how people actually talk about events, in precisely the ways that they do. The involvement of stake and interest in discursive remembering is "curious" only from the circularity of how "memory" is conventionally bounded and defined. "Talk about the past" is just as useful a category as "memory" and may even be, in some respects, preferable: more coherent, more manageable, more identifiable in terms of publicly observable phenomena, less dependent on the way in which boundaries between specialisms have arisen in psychology, and perhaps no more dependent on commonsense notions than the category "memory" itself.

Some of the phenomena that, critics claim, fall within the proper scope of memory studies, but outside of discourse studies, are quite amenable to discursive treatment. It is just that they are not treated in the same way, and that different issues are raised. Personal, private reminiscence is one such example, and pathology is another. However private might be the experience of remembering, it enters psychological theorising by being described, invoked, or otherwise publicly operationalised. Discursive psychology picks it up at that point, just like any other psychology must. And that is quite apart from all the private reminiscing that is already discursive in form, and may even follow the lines of our discursive model. To think privately is not to become suddenly non-social. Hitch's two examples of private remembering are mentally rehearsing shopping lists and reminding ourselves of plots in novels (non-social? non-discursive?).

Consider pathology also. It is not necessary for establishing the relevance of DA, to argue that amnesia is discursively caused, or its cure discursively effected, or that its reality in some relativistic sense might consist in

nothing more than its definition. Even without all that, we can still examine the extent to which discursive criteria figure in the definition and diagnoses of amnesia, in how it is realised in ordinary life, and in how sufferers, other folk and psychologists deal with it. For example, what exactly, procedurally, does it mean to claim that "such patients are indeed handicapped, being unable to leave the house without getting lost, being unable to maintain their ongoing identity, being unable to follow the plot of a film, or keep track of sport on television..." (Baddeley)? Is maintaining an ongoing identity (cf Neisser, 1988) a category located inside, or produced by the cognitive psychology of memory? There is certainly plenty of discursive work on the topic. And how is it discovered that a person is "lost" (as far as they, or someone else, are concerned), or unable to follow a film plot? And what about descriptions like "living hell"? Would it be worth raising such anecdotal quotations and observations to a more systematic empirical footing? And if not, what makes them so useful for textbook explanations, and critiques?

While deep amnesia might not impair the capacity for "chat", we would want to examine the possibly important sense in which this becomes "not riveting" (Baddeley). It certainly, by definition, impairs the capacity to *talk about past events* - and this is surely one of its most obvious manifestations. We shall come to the external reality of those events in a moment. But it is important to stress here that DA is not concerned with denying pathology, nor the suffering that goes with it. We would want to examine how sufferers become candidates for clinical tests, and how spoken and written discourse feature as integral, but largely transparent parts of testing procedures. Not least, we are fascinated by the regularity with which clinical cases, and real suffering, are offered by opponents of DA as effective counters, as examples of problems in the real world that only they take seriously. The rhetoric is interesting, but as topic rather than refutation.

Two related critical themes concern how we handle the issue of a reality that is external to talk: either *mental reality* (what John Dean really did remember, outside of what he said), or *worldly reality* (what Nixon really said, or the unreality of a schizophrenic's trip to Mars). Neisser points out that, pragmatically, Dean could simply have claimed to recall Nixon saying "Let's cover this thing up", and offers the "guess" that the reason he did not claim that is that he did not remember it. Of course, we have no more idea of what Dean remembered, but never told anyone about, than Neisser does, and we make no claim that Dean was lying, any more than that he was telling the truth. But what Dean did say is real and on record, and *was exactly* what helped produce the conclusion it did - of Nixon's complicity. But more important, we do not presume to know what the consequence of such a direct claim would have been, nor how Dean might have thought about it. The very fact that he made no such claim might well have *strengthened* his credibility. We can invert the rhetoric: as Neisser points out, if he was making it all up, lying to incriminate Nixon, he could easily have been more pointed in his accusation. But for exactly that reason, such directness would make his testimony vulnerable, as just what a liar might say, as designed to incriminate rather than to tell a more complex, difficult truth. In any case, it would also allow him to be more directly accused of collusion in the cover-up. Speculation about what was *not* said can be useful in analysing rhetoric (cf Billig, 1987). But in the end that is its status, rhetorical absence - it did not get said, and that is no more warrant for a "real memory" approach to Dean's testimony than for a discursive one.

Concerning real *external* events, several reviewers note that taking independent account of these is important for memory research, but beyond the scope of our stated principles. But in claiming that any specific version of reality is a discursive accomplishment, we are not saying that all we

have to deal with is an individual's talk, such as Dean's testimony, or that old chestnut, the "ravings of a paranoid schizophrenic" (Roediger & Wheeler). What DA does is to place such talk in its discursive context, such that Dean's testimony is analysed *within the court-room cross examination for which it was produced*. The relation between versions and real events is a participants' topic. As soon as psychologists enter the fray, arguing with or against participants about who was really right or wrong, then they themselves become participants in reality definitions, or whatever, become part of a further discourse of truth and error. We are interested in this too. Far from being unconcerned about Dean's accuracy, we are very much concerned with it, enough to examine just how it was produced and established, both in the hearings and in Neisser's own subsequent analysis.

As far as the "ravings of schizophrenics" are concerned, the situation is just as it is for Dean's testimony, except that in this case, nobody believed them. Again DA, drawing on traditions of rhetorical and conversation analysis, not only looks closely at the details of bits of talk, but places an individual's testimony *inside the sequence of talk within which it is produced and received*. The example given here is of a schizophrenic who is described as such (being imaginary and "raving" by definition, so we can hardly disagree), and who presumably got diagnosed as such, and whose "ravings" (which we are told they are) failed to get accepted as credible. In fact, far from presenting a difficult case, the management of interaction that is problematic in one way or another, including intergenerational talk and that of schizophrenics and handicapped people is an established concern of discourse researchers (see Coupland *et al.* 1991). And Wooffitt (1992) has produced an extended and highly relevant analysis of how descriptions of claimed paranormal experiences are produced, including some robust features of their interactional organisation, their rhetorical design with regard to credibility and disbelief, and their relevance to certain psychological concepts such as flashbulb memories (Wooffitt, 1991).

Incidentally, this introduces another contentious point. Our own researches, however meagre, are (by editorial invitation) only briefly outlined in the paper, and we are trying to draw attention to a fairly substantial literature, largely unknown to memory researchers, which deals with many different features of situated accounts; the "gold seam" is being mined. It does not call itself memory research, but that does not mean it is not of real interest to psychologists of language and memory. When the topic is defined as the actions done in talking about the past, rather than the mental machinations of memory, then we are the empiricists, whose descriptive models are designed to handle pervasive features of observed phenomena. If those phenomena turn out to be (1) systematic and integrally related, and (2) not comfortably contained inside the psychological category "memory", then whose problem is that?

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