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COLLECTIVE MEMORY AND REMEMBERING

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Collective Memory and Remembering: Some Issues and Approaches

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The papers presented in this edition of the Newsletter are examples of a resurgence of interest in how to conceptualize memory and directly examine the activity of remembering from a collective perspective. A key motivation for adopting such a perspective is to inform our understanding of the relationship between culture and mind.

The idea for this issue grew from one of a series of lively and engaging day long colloquia hosted at LCHC during 1986. The one organized on Collective Memory brought together and generated considerable interest in people representing a wide variety of discipline backgrounds and research interests in social sciences and humanities. The papers and discussion demonstrated the integrative potential across a broad parish of interest focussing on memory and remembering as a socially constituted activity. The papers in this issue are made up of some of the discussions originally prepared for the colloquium and additional contributions that aim to extend the debate. The hope is that readers will be able to share some of the enthusiasm and interest this topic engendered and that debate and criticism will be stimulated for inclusion in future editions of the Newsletter.

There is a long history of discussion concerning the notion of collective memory. As a concept it has had a "bad press" within both the sociological and psychological literature when conceived as some process operating at the level of "group consciousness," as if social groups have a form of "mental life" that extends beyond that of their constituent members (see for example Farr, 1987). The concern of these papers is to adopt a societal and collective perspective on how the past impinges and emerges in present activity without necessarily invoking critiques associated with the concept of either a "supra or super-individual mentality." A recurrent theme in all the papers is that such a restoration can best be achieved through a direct consideration of the manner and means of what medi-

ates the link between individuals and their socio-cultural heritage. The focus on the mediational means is crucial if we are to successfully extend the analysis beyond the view that it is just a matter of adding context to the study of individual mentality. Acknowledging that information and knowledge can also be located in the world beyond the individual, be that a physical or social environment, certainly shifts the balance of the analysis away from a "single minded" and "egocentric" cognitivism but it begs the question of just what mediates the relationship between the two.

Consideration of the notion of collective memory and the activity of collective remembering provides a link between culture and mind in the following sense. The properties of a culture, embodied in its artifacts, tools, social customs and institutions, language and terms of reference, provide a historical dimension to everyday living that enables knowledge of what has already happened or been achieved to be used in the service of present and future activity. Our modes of being and doing are cultural products that constitute a guiding constraint concerning what form our present and future actions should or could take.

The papers, therefore, present a social approach to the study of mnemonic activity. However they go beyond discussing the social dimension as an independent variable influencing the "facilitation" of individual processes, or of contextual "situation" as represented in arguments for an ecological approach to cognition. They are concerned with the social "constitution" of mnemonic activity where the individual and social dimensions inhere in one another. Such a "constitutive" approach draws off a rich heritage of work which has latterly found increasing expression in the presentation of Vygotsky's discussions of the relationship between culture and mind. The themes of the papers of this issue can be summarized in relation to Vygotsky's ideas. They reflect a concern to incorporate three major aspects of human activity: the cultural--through a consideration of the mnemonic potential of tools and artifacts; the historical--in discussions concerning the way language as a system of signs embodies and makes available for contemporary use aspects of previously generated cultural knowledge; and the instrumental--in that remembering as a social activity cannot be the direct retrieval of past

experience and knowledge, it is mediated via culturally invented tools and artifacts.

Michael Schudson's paper is a warning against the resistance within contemporary sociology to acknowledge the cultural and historical embeddedness of individual, organizational and national experiences of daily life and events. His primary concern is to introduce a sense of history into the sociological process. He argues that the concept of collective memory affords this in the way it embodies a consideration of the limits to which we are free to reinterpret and tamper with the past according to present expediency and interest. It introduces dimensions of social time and generation into the research agenda allowing an examination of how the past imposes on the present without advocating a new version of historical determinism. An important part of the argument is that a consideration of the historical dimension opens up the possibility of deducing general principles from local circumstances. The historical dimension is reflected in the processes of social and individual evaluation that sustain over time an orientation to cultural products, rather than reducing social theory to a set of local cameos. (This is a line of argument reminiscent of the theory underpinning the work reported in the "Cognitive Studies of Work" edition of the Newsletter edited by Sylvia Scribner, (1984). In that issue a key concern was to deduce general principles of cognition from specific functional systems of work activity). The past is not just the arbitrary plaything of present self interest, there is a constraint placed on us, it is pre-served (sic), by the very means we choose to re-present and manifest what we deem as significant from the past. That balance between choice and constraint or bias is taken up in a variety of ways in the papers by Shotter and by Wertsch.

John Shotter approaches the issue of memory from the perspective of a psychologist critical of the prevailing metaphors that underpin the psychological study of individual memory, metaphors that frequently assume the non-problematic status of mental processes and structure inside people's heads. He grounds and illustrates his discussion in the work of Wittgenstein and Bartlett, among others, both of whom urged that memory cannot adequately be conceptualized as a property of individuals. That is, memory is not studiable in

its own right, without reference to the forms of social activity that generate the functional requirements of how we deal with the past, a past with "content" and "motive" forged in the circumstances of everyday cultural existence. One of the main features of Shotter's argument is that we cannot remember on our own because we have no real way of checking the status of the remembering with the original events. Such a checking out can only come if we take remembering and forgetting as activities involving content that is validated according to criteria derived from the culture in which we live. What allows the individual to internalize those social and cultural constraints, that act as a form of collective memory, are the forms of talk that we can legitimately employ to account for our activity. Those accounting practices do not just serve to represent our past experience they also "work to reproduce the social order of which we are members." The modes and motives for accounting for our actions in the way we do and the way they constitute the activity of remembering are taken up in Wertsch's discussion. They also flag one of the main features of the papers by Middleton and by Edwards in that they are concerned with looking directly at the forms of talk as the medium in which remembering collectively is realized.

James Wertsch takes up the discussion of collective memory as a means of extending and reconciling competing views within the "sociohistorical" perspective on mental development that have recently surfaced in western commentaries and the literature available in English. He emphasizes that the collective dimension in mental functioning is more than some distribution of the cognitive burden in coordinated joint activity. Mental functions are collective in that the means by which they are mediated have a cultural history. He takes up the discussion of mediational means as a way of extending his discussion of the Vygotskian analysis beyond the immediacy of interpersonal activity. Wertsch lays out the theoretical implications of the way the choice of mediational means, reflected in the modes of discourse or textual genres, constrains or shapes what can and cannot be thought, said and remembered. In addition, in that human society privileges different modes of discourse, or in Shotter's terms legitimates different accounts, we have another point of contact between culture and

mind. But as in Schudson's discussion, he is also concerned with introducing the idea that within any genre we can also exercise a degree of choice, there resides the possibility of a variety of "voices," that pave the way for accounting for variability and individuality in mental functioning.

The remaining three papers of this issue, are further examples of the direct study and illustration of collective remembering as an activity and how it is mediated in a variety of cultural settings. In addition, what they all have in common is a concern for the study of conversational discourse. Conversational discourse allows people to represent and present their various versions and approaches to the cultural knowledge available to them. It therefore provides a powerful means of sharing the mnemonic burden and distributing the resulting consensus of what may or may not have happened and what should or should or should not be done in the light of past experience. All the contributions are concerned with looking at rather than through discourse. Conversational discourse is therefore approached not as a window onto individual mentality, but as a medium through which we coordinate culturally bounded and constituted mentalities.

David Middleton analyzes the role of joint or collective remembering in recreating a folk dance tradition. English Morris Dancing is the tradition discussed. One of the many ways in which this live tradition is continually recreated is explored through an analysis of how a team of dancers works out a problematic sequence during one of their regular rehearsals. A sequence of dialogue recorded when the dance had fallen into complete disarray reveals three important elements for coordinating and mediating their collective expertise and memory in the definition of a viable version of the dance in question. First the importance of achieving a consensus of meaning for the vocabulary of terms used to describe the patterns of moves in the dances. Second, how that vocabulary is constructed and conventionalized during arguments that draw off a variety of mnemonic resources available to and represented by the team members. Third, how a division of mnemonic labour within the team distributes the mnemonic burden in such a way that no one member need know exactly how each and every aspect of the

dance should or should not be executed. All three elements of history, culture and instrumentality play their part in the team's efforts to resolve their dilemma.

Derek Edwards examines how a concept of collective remembering provides a means of interpreting the conversational discourse of the classroom. At the level of daily educational practice it provides a way of understanding how any domain of educational activity is contextualized in mutual or common knowledge that is established in continuities mediated by conversational discourse. At the level of educational theory it also affords the possibility of reconciling two competing ideologies of educational practice, one that sees education as transmission of knowledge, and one that sees it as creating the environment for children to discover and construct their own understanding. The concept of collective remembering provides a way of approaching the immediacy and joint construction of understanding in classroom activity while at the same time incorporating the fact that any curriculum is a cultural artifact with a history that the children could not discover independent of the agency of the teacher.

Finally Margie Waller's contribution provides a fitting tail piece to this issue. She writes from the perspective of a film maker and documents her thoughts about a film she is currently making and how it relates to the area of collective remembering. A version of her remarkable 25 minute film recording the first 2 years of her neice's family life was originally shown and discussed at the colloquium. The unique feature of this film was that the sound track was made up of the family's collective comments and recall on viewing the originally silent footage. We were afforded a perfect example of collective remembering as an activity and its significance to family life. The discussion reported here focusses on the use of film as commemorative resources within family life, where the commemorative activity is generated through the family's joint reminiscences on watching the film. Cultural artifacts such as snapshots, film and video records provide powerful mnemonic resources mediating the collective recall that directly contributes to marking and understanding the transitions and dynamics of family life. In particular, forgotten and incidental events jointly recalled during the family viewing of the

film reveal the significance of discussing what was forgotten in the creation and improvisation of a shared family history which emerges as the past is reinterpreted in the context of present activity.

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Preservation of the Past in Mental Life

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In sociology, the concept of collective memory can refer to (1) knowledge of the past generated in interpersonal interaction, the processes of rehearsal and reminder whereby people remember together; (2) socially sedimented knowledge where, for instance, different generations have characteristically different understandings of the past; (3) knowledge of the past based on shared experience of historical events or; (4) knowledge of the past based on a shared cultural stock of knowledge socially transmitted in lessons, rituals, traditions, proverbs, and other forms. As it happens, "collective memory" is not a concept often used in sociology. It is assimilated to a general line of French social thought traced to Emile Durkheim that emphasizes the reality of "social facts" existing independently of individuals. The term tends to be placed in inverted commas to indicate that it should be regarded skeptically. Sociologists, American sociologists at any rate, treat with suspicion any concept that cannot be specifically located in individuals or in institutions; they take any concept that points to the discredited idea of a "group mind" with a grain of salt.

There is in American sociology and in American social sciences more widely a rationalist and materialist inclination reluctant to acknowledge the power of either culture or tradition, so "collective memory" is in double jeopardy. In the study of ideas, ideology, and belief-systems, there is a

strong resurgence of a view that Clifford Geertz, nearly 25 years ago, belittled as "interest theory." This is the position that there is nothing more to the study of ideology than locating the material interests served by the ideas people adhere to, since people construct their beliefs to serve their own real interests.¹ Interest theorists, among others, have found that even the past can be reconstructed and rewritten to serve social interests. This is an observation that arouses special indignation: there is a sense, even among the most critical and world-weary unveilers of the material basis of ideas and ideologies, that "history" should somehow be inviolate. Nothing so clearly separates literate from nonliterate societies as the difference between history, responsible to an unchanging written record, and myth, always susceptible to reworking and limited only by living human memory. As Malinowski put it in his famous dictum that myth is a sociological "charter" for primitive societies, "...myth, taken as a whole, cannot be sober, dispassionate history, since it is always made *ad hoc* to fulfill a certain sociological function, to glorify a certain group, or to justify an anomalous status."² Few facts about Soviet intellectual life so powerfully affected American anti-Soviet views in the 1950s as the repeated observation that the Soviets rewrote their own (and the world's) history to glorify the Soviet state and the communist party. George Orwell's *1984* was widely read (somewhat unfairly) as an attack on the Soviet Union, and it is not surprising that at its center, the luckless hero, Winston Smith, should be a cipher in Oceania's Ministry of Truth, his job that of erasing from the historical record facts inconvenient to the present regime. One of the mottos of Oceania was the now familiar phrase, "Who controls the past controls the future."

Sixty years after Malinowski's "charter" and 40 years after Orwell's Ministry of Truth, we have all become primitives and all become Soviets in the eyes of many scholars who examine how the contemporary world keeps track or neglects its past. We have been made aware of how much our own scholarship is shaped by our wishes, how much our own constructions of the American past, for instance, have cleaned it up, ignoring conflict, conveniently overlooking the role of anyone not white, male, Protestant, heterosexual. Frances Fitzgerald's study of American history school-books, *America Revised*, was a forceful illustration

of how subject our own telling of the past is to historical fashions, changing constellations of political power, and even direct political influence from states with economic clout in the textbook marketplace.³ We are not only made aware of the way we rewrite our own history, but we notice with concern how others rewrite theirs--as in recent news reports on how the Germans and Japanese have been retelling the story of World War II.⁴

Where the creation of a sense of the past is not in the hands of professional historians, it is all the more likely that the past will be used as a resource for legitimation rather than as an avenue toward truth. And historians, sociologists, and folklorists are making us increasingly aware that there is a wide world of people and institutions who rework the social memory. It includes the United States Congress and its representatives who have commissioned statues for the Capitol building, as Barry Schwartz has documented.⁵ It includes the builders of public monuments, the inventors and perpetuators of national holidays, the makers of TV docudramas, the writers of historical romances, museum curators, the proprietors of tourist attractions, historical societies and genealogical hobbyists, historic preservation groups and many others. That most of these groups and people most of the time are engaged in "legitimation" of present interests can scarcely be denied. "Interest theory" has thereby achieved a latter-day success. This has been reinforced by some brilliant historical research in which "tradition" itself has come to be seen as a carefully constructed resource for serving present interests of various kinds, not just in Malinowski's Trobriands but in the modern West (and, indeed, especially in the imperialistic countries of Western Europe in the late 19th and early 20th centuries). A number of essays in this vein are collected in Eric Hobsbawm and Terence Ranger's wonderfully titled volume, *The Invention of Tradition*.⁶

Fine as this work is, it fuels a tendency to support "interest theory" in its most raw form, a kind of minimalist theory of human endeavor where rational-actor theorists in economics and political science (usually, but not always, conservative), social interactionist sociologists and sociologists of knowledge (usually, not always, liberal), and Marxists of a certain literal-mindedness all converge: People act in their own self interest. No

one offers up or subscribes to an idea, belief, or course of action that does not serve their gut (usually material) interests. That is all ye know and all ye need to know. The rest is just tracing the sometimes intricate pathway from manifest idea, belief, or action to latent, often hidden, interest.

There is more to it than that. In examining the writing and rewriting of history, the memory of and uses of memory of the past, I think there are obvious ways that "interest theory" fails, that the recollection of the past does not serve present interests. The past is in some respects, and under some conditions, highly resistant to efforts to make it over. It cannot be made over at will--which is not to say that people don't try. People and organizations and nations do make their own pasts, to paraphrase Karl Marx, but they do not do so in conditions of their own choosing, with materials of their own making, or even with their memories acting entirely under their own volition.

The full freedom to reconstruct the past according to one's own present interests is limited by three factors: the structure of available pasts, the structure of individual choices, and the conflicts about the past among a multitude of mutually aware individuals or groups. Let me define and illustrate each of these three points. I will move with some abandon from individual to organizational to national examples. My interest is not specifically in how professional or textbook history gets rewritten but how any individual or organization or nation-state assimilates its own past experience and what processes limit the ability to do so successfully for the sake of legitimation.

I. The Structure of Available Pasts

Individual, groups, organizations, nations, and societies do not have all possible materials available to them from which to construct a past. From the viewpoint of the individual seeking legitimation from the past, there are just so many things to work with; the available materials are far from infinite. Of course, within what is available, there is much that can still be done to bend interpretation to one's will--but the available materials still set limits. Michael Walzer has put this well in demonstrating the various uses to

which the Biblical story of the Exodus has been put in Western thought:

Cultural patterns shape perception and analysis...They would not endure for long, of course, if they did not accommodate a range of perceptions and analyses, if it were not possible to carry on arguments inside the structures they provide...Within the frame of the Exodus story one can plausibly emphasize the mighty arm of God or the slow march of the people, the land of milk and honey or the holy nation, the purging of counterrevolutionaries or the schooling of the new generation. One can describe Egyptian bondage in terms of corruption or tyranny or exploitation. One can defend the authority of the Levites or of the tribal elders or of the rulers of tens and fifties. I would only suggest that these alternatives are themselves paradigmatic; they are our alternatives. In other cultures, men and women read other books, tell different stories, confront different choices.⁷

That is precisely what I mean by a structure of available pasts. There are features of our own pasts that become part of the givens of our lives, whether they are convenient or not. English writers of the past several centuries have been free to take different attitudes to the English literary heritage, but they have not been free to ignore it and its illustrious reputation. Goethe said that he was glad to be German so as not to have had Shakespeare to compete with; English authors, in contrast, have deeply felt what one critic has called "the burden of the past."⁸ Americans may interpret or reinterpret slavery as they choose (though not *exactly* as they choose), but it is unlikely they will ever be able to do without some accounting of this part of American history. This is true, in part, because slavery happened--but some things have happened that have been forgotten or ignored successfully. It is true, more powerfully, because racism and race relations remain central problems in American society and politics. It is also true because slavery was a prolonged, traumatic experience for the nation; it is intimately connected with one of the defining events of American

identity, the Civil War; it is inextricably linked to the character of the nation's most haunting hero, Abraham Lincoln; it is deeply embedded in the language and aspirations of civil rights struggles and, indeed, other protest movements that borrowed from the songs and stories of American slaves.

In the long passage of time, everything fades. It would be impossible now to rewrite the history of the 20th century and claim that the 1930s was a time of great prosperity. But if I claimed that the 1830s was a time of great prosperity, only professional historians would be equipped to dispute me or emotionally engaged enough with the panic of 1837 to bother. The salience of the past declines. It should come as no surprise that in American foreign policy, the most powerful historical analogies used to legitimate (and, I would say, to shape) policy decisions most often come from the recent past, drawn from events within the lifetime and memory of the policymakers.⁹

Not only are people's reconstructions of the past generally confined to the experiences in their own traditions, then, but they are further limited to those elements of the tradition that have emerged, over time, as especially salient. There is what I will call a rhetorical structure to social organization that gives prominence to some facets of the past and not others. Once commemoration gets underway, it picks up steam; it operates by a logic and force of its own. Not only are records kept, diaries saved, and news accounts written, but statues are built, museums are endowed, brass plaques are engraved and placed in sidewalks and on the walls of buildings. Certainly the statues can be destroyed, the museum exhibits redone, the plaques removed--but this is not easy to do and may well create public controversy that revives rather than erases memory. (Even powerful groups and individuals, therefore, can only muck with the salient past so far. President Ronald Reagan's effort to rewrite the history of World War II at Bitburg, omitting from the record the history of Hitler's SS, failed).¹⁰

By the rhetorical structure of social organization, I do not refer exclusively to physical or material implantation of memory, museums and statues and the like. Take the question of how a novel becomes a "classic" that is treated as a great

work of art and canonized in school curricula, examination questions, anniversary editions, scholarly conferences, and so forth. Recent studies make it clear that this is far from a matter of pure aesthetic judgment. The political, economic, and social relations of the author (or sometimes the author's friends, publishers, and heirs) have a great deal to do with the establishment of a reputation as a "classic" or "great" art.¹¹ My point, however, is not that social power is required to enshrine a work but that, once enshrined, the work accumulates a self-perpetuating rhetorical power. It gathers partisans, partisans beget schools, schools beget cultural authority, cultural authority begets an established tradition, the tradition embeds itself not only in formal institutions but in our very language (we retain the word "gargantuan" even if we have forgotten Rabaleais and if "Dickensian" is not a term on the tip of everyone's tongue in the English-speaking world, most people still know what it means to be an old Scrooge).

This happens in science as well as in art. Robert Merton has called it the "Matthew effect"-those that have, shall get.¹² He observes that co-authored articles in science are usually credited to the more famous author, whether the work is primarily his (or hers) or not. Readers recognize and assimilate the more famous name (whether it is listed first or last does not matter very much), not that of the up-and-coming graduate student or colleague. A "Matthew effect" exists not only in the crediting of work but in the giving of grants and other central processes in the distribution of goods and reputations.

II. Structure of Individual Choice

Now I move from the primarily sociological observations to the intersection of the sociological and the psychological. Given that people can choose only from the available past and that the available past is limited, are individuals free to choose as they wish? Far from it. There are a variety of ways in which the freedom to choose is constrained. I will lump these into four categories: trauma, vicarious trauma, channel, and commitment.

Trauma. "It is rather the rule than the exception for the past to be preserved in mental life," Sigmund Freud wrote.¹³ He meant this quite

literally--not that the person in the present reconstructs a past to fit his or her fancy but that some part of the past, like it or not, is lodged in the mind, like a wound that injures and so changes the body and forces the body to respond to heal itself--but never quite the same as it was before.

Traumas, as I use the term here, are past experiences people (or organizations or nations) cannot ignore even when they would like to, cannot divert their attention from without courting anxiety, fear, and pain. Not only must Americans confront slavery, not only must Germans face the Holocaust, but they must do so repeatedly, obsessively, necessarily, whether they like it or not. To take a more humble example, labor leaders of Worcester, Massachusetts in the late 19th century warned against precipitous action in labor disputes by recalling "failed strikes of 10, 20, or even 45 years past."¹⁴ This was not a matter of cautious men seeking legitimation for their purposes but of members of a community who felt, as if on their own bodies, the scars of the past.

The past becomes part of us, and shapes us, it influences our consciousness, whether we like it or not. In the pathological, but familiar, form, people become entrapped by their old wounds. They establish what Jerome Bruner calls a "preemptive metaphor," "the technique by which many seemingly unrelated things are tied together by a common fear and a common avoidance."¹⁵ The neurotic individual governed or too sharply governed by a preemptive metaphor overefficiently anticipates and avoids anything on the overinclusive danger list that an early trauma, or the inability to master the early trauma, has compiled in the mind.

Vicarious trauma. People react not only to extreme conditions in their own lives but to extreme conditions in the lives of others. In Congressional elections, incumbents win in well over 90% of all contested races and usually win by overwhelming margins. There is, for a variety of reasons, an extraordinary incumbent advantage. Nevertheless, many incumbents, even in what all observers would judge to be very "safe" districts, run expensive re-election campaigns. Why? Because, political scientist Gary Jacobson writes,

...members tend to exaggerate electoral threats and to overact to them. They are inspired by worst-case scenarios-- what would they have to do to win if everything went wrong?-- rather than probabilities. Hence we find members who conduct full-scale campaigns even though the opposition is nowhere to be seen.¹⁶

Obviously, these candidates do not run expensive campaigns needlessly to "serve their own interest." They misread their own interest and they dip deep into their own resources as a result. They do so not because of some traumatic experience they themselves have undergone but because they are aware of stories of others in similar situations who (however rarely) have been defeated.

We might call "vicarious trauma" simply "lessons" since it is the task of much of education to instill in newcomers (children, new recruits to an organization, new immigrants to an established community) not only information about the past but appropriate emotional orientations to it. It should be clear that this includes not only aspects of the past regarded with horror but other aspects regarded with pride. Burton Clark has argued that the key feature that identifies the "distinctive" small colleges he studied is that they have "a strong organizational saga or legend" capable of capturing the allegiance and commitment of the college staff. (There can be a pathology of pride as well as of trauma--an organizational saga, Clark writes, "turns an organization into a community, even a cult.")¹⁷

Channels. There are some facets of the past we cannot ignore because we do not have enough energy to escape their inertial pull. James Coleman observed in his study of political conflicts in American communities that different communities handle conflict in characteristically different ways. A key feature that shapes how a community responds to conflict will be, quite simply, how the community has responded to conflict in the past.

Since controversy arising out of a particular kind of crisis is not likely to occur frequently in a community, each community has little opportunity to

evolve, in a number of trials, the optimal procedures for handling disagreements. Quite to the contrary, the outcome of one dispute 'loads the dice' in favor of a similar outcome the next time. Only a few such incidents may be necessary to fix the path of community disputes for fifty or one hundred years to come.¹⁸

Thus even rare events, even unique events, may have extraordinary influence on people and organizations long after the fact. There is, in particular, great power to originating events, the character of "founding fathers" or constitutional documents. As anyone who has ever been a member of a committee knows, there is frequently a need for orientation, for a starting point to deal with a new problem or issue, and a search for precedent ensues.

Commitments. There are some facets of the past we cannot ignore or forget without feeling the loss of some part of ourselves. Not only does the past, as Freud says, live in people's mental life; people's mental life lives in the past. A person is constituted by a train of events and experiences. People make commitments, make promises, forge ties, establish loyalties, invest in lines of action, and these become defining for the person of what he or she is. A person comes to have a commitment in him or her self--in what is called identity or character or, with a more social aspect emphasized, reputation. These are then difficult to let go of--even if rational self-interest (if the word "self-interest" can be said to have any meaning in this context) would so advise. Economists speak of the problem of "sunk costs:" People will not rationally examine only the marginal return that can be expected on a new investment on an old project but, irrationally (but humanly), people will fear losing their prior investments. If you put \$1000 into repairing the roof, and it still leaks, should you put in an additional \$500? The economist would urge the homeowner to think only of what value might be gained from the \$500 investment, but real homeowners worry about "not losing" the \$1000 already invested ("It is already lost," the economist cries in vain). The homeowner feels "invested" in roof repairs that are a part of the past.

There is a line of research in social psychology that examines how organizational decision makers keep on escalating their commitment to a line of action that has proved itself ineffective.¹⁹ Work like this tends to suggest that repeated investment in a failing course of action is pathological, however common it may be. There is another side to this, however, in observing that commitments and loyalties become a part of the person's or organization's identity. Abandoning these commitments would be transforming the self.

So long, then, as individuals, groups, organizations, and societies undergo traumatic experiences--experiences that truly leave a mark and engender the formation of "preemptive metaphors" for better (loyalties and commitments) or for worse (neurosis), so long as they seek to minimize the expenditure of effort in confronting new tasks and problems, so long as they seek to maintain a continuous, stable sense of identity, they will not, because they cannot, reconstruct the past entirely in their own "interest." It follows that the structure of available pasts and the rhetorical structure of social organization that makes some facets of the past more salient than others will necessarily be powerful influences on how an individual or organization thinks and acts and constructs or reconstructs a history from which to act.

III. The Intersubjective Conflicts Among Choosers

Finally, people's ability to reconstruct the past just as they wish is limited by the crucial social fact that other people within their awareness are trying to do the same thing. Different reconstructions clash. Control over the past is disputed and the past becomes contested terrain. Some individuals, organizations, classes, and nations have more power than others to claim the territory of memory. There is a politics of memory that requires study. Certainly political leaders of both powerful and aspiring groups recognize that the mobilization of memory is often a vital political resource. But as for the idea that people and groups and nations rewrite the past to legitimate the present, this observation cuts two ways. Yes, individuals and groups try to co-opt memory for their own purposes; but no, they do not do so with a free hand so long as success even convincing oneself requires non-contradiction by others.

Conclusion

I think it is important to resurrect for the social sciences the vital role of the past. History is often regarded as a threat to social theory, tending to reduce laws to particular instances, tending to pulverize grand assertions with the force of local exceptions. But if it is true, as I believe it is, that social science will arrive at better understandings of the world only as it better specifies the appropriate contexts for its generalizations, the past has to be incorporated into social science theory, not set aside.

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Remembering and Forgetting as Social Institutions

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I want to discuss a noncognitive, social constructionist approach to remembering and forgetting (Gergen, 1982, 1985; Shotter, 1984). It is an approach in which, not so much language as such, but speech, our ways of talking become our initial (but not necessarily our final) concern. Such approaches take it that the primary function of all our talk is not to represent the world; words do not primarily stand for things. We maintain that the primary function of our speech is to coordinate diverse social action; to create, maintain, reproduce and transform certain modes of social and societal relationships. If in our experience, it seems undeniable that words do in fact denote things, they do so, we would argue, only from within a form of social life already constituted by the ways of talking in which such words are used; thus the entities they denote are known, not for what they are in themselves, but in terms of their currency in our different modes of social life, that is, in terms of what it is one can achieve in everyday activities by their use.

The Centrality of our "Accounting Practices"

This approach implies that we cannot take our "lived" experience as in any way basic; indeed, from our point of view it becomes a problem as to why we, at this moment in history, experience ourselves as we do--as if we all existed from birth as separate, isolated individuals, containing wholly within ourselves "minds" or "mentalities," set over against a material world itself devoid of any mental processes. In our experience of remembering, at least, in what we speak of as our experience of remembering, "There is in us something like a picture or impression," says Aristotle (*De Memoria et Reminscentia*, 450b); "memory demands an image" says Russell (*Analysis of Mind*); but, in so saying, Aristotle, Russell, ourselves and countless others forget the indefinitely many everyday occasions in which no such experience of referring to an "inner" image in order to remember occurs--in remembering how to spell and to write the words of this paper, for the most part, no such consultation of memory images has occurred. Or did it?... You perhaps want to say: "I must have done it, perhaps unconsciously. How else could the remembering have been done if not by the consultation of a copy, image, trace, or whatever, representing what one remembers?" But must it? What are the facts here? What can we remember from our own experience of remembering, and what of it do we forget, and for what reason? By what warrant do we take certain of our clear experiences as basic and extrapolate from them as models or paradigms to determine what we say must be the character of those less clear to us? It is the way in which we account to ourselves, account for our experiences and make sense of them that interest me. To repeat again my major thesis: our ways of talking about our experiences work, not primarily to represent the nature of those experiences in themselves, but to represent them in such a way as to promote one or another kind of social order.

Now the view that I am putting forward is very obviously a Wittgensteinian (1953) one. But long before he came to it, C. W. Mills (1940, p. 904), put forward a similar view in the following words:

The major reorientation of recent theory and observation in sociology of language emerged with the overthrow of the Wundtian notion that language has as its function the "expression" of prior elements within the individual [i.e. those elements being said in their turn to be based upon impressions caused within the individual by external events: J.S.]. The postulate underlying modern study of language is the simple one that we must approach linguistic behaviour, not by referring it to private states in individuals, but by observing its social function of co-ordinating diverse action. Rather than expressing something which is prior and in the person, language is taken by other persons as an indicator of future actions.

Mills described this as the function of language within the context of discussing people's accounting practices; that is, within the context of discussing how people render, what is otherwise puzzling, senseless, or indeterminate activity visible as a familiar, sensible, and determinate commonplace occurrence. An account works as an aid to perception, literally instructing one both in how to see something as a commonplace event, and, in so seeing it, appreciating the opportunities it offers for one's own further action. As Mills (p. 904) put it, in describing the function of "motive-accounts" in explaining people's conduct:

Motives are imputed or avowed as answers to questions interrupting acts or programs. Motives are words. Generically, to what do they refer? They do not denote any elements "in" individuals [they do not, in other words, refer to anything, to any "thing": J.S.]. They stand for [i.e. indicate: J.S.] anticipated situational consequences of questioned conduct.

In other words, they serve to keep in good repair and to progress a certain kind of social action, to offer opportunities for one rather than another form of social relationship. Talk of memories, of remembering and forgetting, as I shall try to show in a moment, is biased in the

same way too. This is so because, as Bartlett (1932, p. 253), initially realized:

Psychologically speaking, a social group is never merely a collection of people, but is always in some way organized. There must be some active influence which, so long as it is effective, brings and holds together the people who make up the group.

And he goes on (p. 255):

Every social group is organized and held together by some specific psychological tendency or group of tendencies, which give the group a bias in its dealings with external circumstances... [such a bias: J.S.] immediately settle[s] what the individual will observe in his environment and what he will connect from his past life with this direct response. It does this markedly in two ways. First, by providing that setting of interest, excitement, and emotion which favours the development of specific images (aide memoires) and secondly, by providing a persistent framework of institutions and customs which acts as a schematic basis for constructive memory.

Or, as I have attempted to put the matter in what might be called the "social accountability thesis" (Shotter, 1984, pp. 173-174):

Our understanding and our experience of ourselves and our world is constituted for us, very largely, by the ways in which we must talk in our attempts to account for ourselves and our world--where I say must talk because, if we do not talk in ways which are perceived by others in our society as intelligible and legitimate we will be sanctioned; we shall be perceived as failing to reproduce the social conditions required for routine intelligibility; and we will thus be treated as socially incompetent in some way.

In saying this, my interest as a psychologist is not just in how we talk about ourselves, but in the problem of how we as psychologists must talk about how, *we as people must talk about ourselves* -- if, that is, we are to meet the requirements I've just mentioned, i.e., that the talk be perceived by others as intelligible and legitimate, as talk which works to reproduce the social order of which we are members.

One final scene-setting comment before turning to talk only of memory: I have talked about talk so much because, at the moment in psychology, it is assumed that we all know what the ordinary words "know," "think," "imagine," "remember," etc., mean; that we know what phenomena these words signify and what states of affairs are described by sentences incorporating them. Hence: as our interest is in the phenomena themselves, in the real nature of thought and memory, etc., the right method is surely the direct experimental study of the phenomena--the actual (or so-called) "memory traces," the nature of the actual (or so-called) "memories" containing them: the "sensory registers" (the visual icon, the STM and the LTM), the actual (or so-called) "retrieval processes," etc., etc. Well, I'm afraid I disagree; such an interest seems to me to be misdirected and mistaken. My interest in the "nature of the mental" is a concern with how *talk in such terms* functions to constitute and reconstitute forms of social action, and, one might add, the experiences sustaining these forms of action.

While there is a sense in which we know what phenomena are signified by the use of such words as "think," "imagine," "remember," etc., that sense is merely that we do think, imagine and remember, and can say so, not that we command a clear view at all of what thinking, imagining or remembering is; they are words we use in our ways of talking in accounting for ourselves to one another. And if C.W. Mills and Wittgenstein are right, there is nothing as such which "thinking," "imagining," or "remembering" is--the use of such words is not to refer to private states "in" individuals. We fail to command a clear view as to what "remembering" is--and evidence of that failure is manifested in the puzzles and problems we raise and in the confused manner in which we try to solve them--because there is not a clear view as such to be had. We wonder how it is that a

person can "recall," "retrieve," or "refer to" some "thing" from the past. And then we hasten to construct all kinds of theories in response to this question, imputing all kinds of properties to processes going on inside the person, instead of probing the dubious presuppositions underlying the question itself: a) that there is some "thing" or "trace" of a thing past "inside" the person to which reference is made; and b) that there is such a "how" for every "doing"--instead of there being activities which persons, in accounting for themselves as persons, must talk of themselves as just doing; i.e., that there are unaccountable doings upon which all our accountable doings are based.

For example, to mention a question of Wittgenstein's from *The Blue and the Brown Books* (1965, p. 3): How does one know if what one is doing is correct? Especially when it comes to remembering or imagining something. Does one check out what one is doing by reference to an inner criterion, by referring it to a copy or image of what is required? Wittgenstein would argue not.

Our problem is analogous to the following: If I give someone the order, "fetch me a red flower from that meadow," how is he to know what sort of flower to bring, as I have only given him a word? Now the answer one might suggest first is that he went to look for a red flower carrying a red image in his mind, and comparing it with the flowers to see which of them had the colour of the image. Now there is such a way of searching, and it is not at all essential that the image we use be a mental one. In fact the process may be this: I carry a chart co-ordinating names and coloured squares. When I hear the order "fetch me, etc." I draw my finger across the chart from the word "red" to a certain square, and I go and look for a flower which has the same colour as the square. But this is not the only way of searching and it is not the usual way. We go, look about us, walk up to a flower and pick it, without comparing it to anything. To see that the process of obeying an order can be of this kind, consider the order,

"imagine a red patch." You are not tempted in this case to think that before obeying you must have imagined a red patch to serve you as the pattern for the red patch you were ordered to imagine. (1965, p. 3)

"An 'inner process' stands in need of criteria," as he says elsewhere (Wittgenstein, 1953, *580); the correctness of an inner process cannot be tested by comparison with yet another inner process--for how could the correctness of that process be tested? At some point, reference to activities in daily life at large is necessary, for that is where judgments as to what is right and wrong take place. Such judgments are not made for one by one's biology or neurology; they operate just as effectively whether one is acting correctly or mistakenly. It is not their job to make correct judgments for one; that is one's own responsibility, and it is a part of the nature of social life that people can take such responsibilities upon themselves.

How do people become themselves responsible for the correctness, appropriateness, rightness, etc., of their own performances? Putting the matter thus allows us to recognize that our original question, "How is it that a person can 'recall,' etc., something from the past?" is in fact ambiguous, in that we might be asking either:

1. What "in" us enables us to act in that way? Or,
2. What socially are the enabling conditions?

Currently, instead of investigating the actual, everyday social circumstances in which appeals to remembering are used and warranted in our accounting practices, i.e., what socially are the conditions making memory possible, we speculate upon the role of "images," "schemata," or of the "propositional structures" which are meant to be "in" us somewhere, making memory possible-- as if we cannot be sure about the correctness of our memories lacking such an account. We fail to appreciate that to the extent that there is a problem of recollecting an object as being indeed the object one experienced, there is just as much if not more of a problem, in recognizing a supposed "image," as a repeat of a previous image--common features, a parallel relational structure, etc., are

not enough. While theorists may have image and object to compare, real people only have their images, don't they? The meeting of certain social criteria are important in determining whether a putative memory is to count as a memory or not--Bartlett realized this at first, but later, seemed to forget it again (Douglas, 1980).

Remembering and Forgetting as Social Activities

Let me now turn to a discussion of remembering and forgetting as social institutions. In Part II of *Remembering*, Sir Frederic Bartlett (1932, p. 296). makes many such statements as the following: "Social organization gives a persistent framework into which all detailed recall must fit, and it very powerfully influences both the manner and matter of recall."

For the early Bartlett--working along with A.C. Haddon, the leader of the famous Cambridge expedition to the Torres Straits--the question was clear. Without the possession of some kind of "organized setting," as Bartlett called it, without a bias or tendency to organize one's experience in one way rather than another, our cognitive lives would be chaotic, quite unmanageable. Memory, like attention and perception, is selective. But what are the principles of selection, and where are they to be located? In 1923, in *Psychology and Primitive Culture*, Bartlett was also quite clear as to the answer. They issue from and are to be located in the social activities of everyday life: Remembering is an important part of everyday life and develops so as to meet demands.

One such demand is to do with social control and accountability, with rendering daily social life operable and intelligible. In other words, what is remembered and the manner of its recall must be such as to help reproduce a society's social order. But as Bartlett noted (in 1923, Ch. 4), social life is full of conflicting tendencies prone to disrupt it. They have to be dealt with in some way, and one way "society has of dealing with conflict is," he suggested (*ibid*, p. 105), "that each of the conflicting tendencies is assigned its own characteristic sphere of activity, or its own recognized time of expression." Thus, for example, in noting the opposition between conservation and curiosity, he pointed out:

Curiosity prompts exploration of the novel; the basis of conservation rests in blind acceptance of the old ... (However) the history of every primitive group, in fact, reveals certain spheres of activity within which curiosity is not allowed full sway.

When applied to memory this theory--of otherwise conflicting impulses organized into "spheres of influence"--suggests that not only are organized settings constructed to promote only certain kinds of memories, they also work to hinder others, to help produce, as Jacoby (1975) calls it, social amnesia, an institutionally contrived forgetting or repression of things, if not already known, in fact then at least experienced. Thus, for the Bartlett of 1923, if events do not fit into the frameworks provided by one's social institutions-- into which one has been socialized--then they are not remembered.

In *Remembering* Bartlett takes up this issue of social institutions and their influence again, but already he seems to have forgotten his early emphasis upon the socially contrived nature of forgetting, and there is no specific treatment of forgetting as such in *Remembering*. For instance, he discusses the different institutional interests of the Zulus and the Swazis. At that time the Zulus were the great warriors greatly interested in fighting, while the Swazis were a somewhat poor and down-trodden people who could only win in conflicts by diplomacy and guile. "The Zulu recalling modes of ancient fighting was," says Bartlett (1932, pp. 263-264),

...voluble, excited, emotional, confident, dramatic. The Swazi on the same topic was taciturn, unmoved, matter-of-fact. But the Swazi, recounting old stories of diplomacy, where guile gets the better of might, became more lively, more voluble, gesticulated more freely, had inward confidence and outward dramatic form.

In other words, what Bartlett calls "a group's preferred persistent tendencies," or what others may call simply its way or form of life, constitutes, to quote him again, "a lasting social 'schema' on the basis of which much constructive work in recall may take place" (ibid, p. 264).

Thus at that point the book can still be read as saying that the "schemas" which work to organize our memories, rather than being wholly in our heads, are partly at least to be found in social institutions. This is the view proposed here.

Incidentally, Bartlett also notes at that point that "there is social control from the auditors to the narrators" (ibid, p. 266): The ability to recall and its mode and manner are influenced in the narrator by the dominance or submissiveness of the auditor. People's abilities are not independent of their context of usage. A point currently coming to prominence in the work of Labov (1969) and Margaret Donaldson (1977), but clearly anticipated here by Bartlett.

Now if one's memories are not organized, conventionalized, and stabilized by such social "schemas" then, Bartlett claims, memory is of the "rote recapitulation" type. Such a type of recall is, he claims, the characteristic of a way of life, or at least an aspect of life, in which people have little or no interest, and in which the interests they do have are all concrete in character, and where none of them are dominant. It indicates, he suggests, "that there is no main directing or master tendency at work (in organizing the recall), except the normal 'schematic' temporal one." (ibid, p. 265)--that is, things are remembered simply in order of their occurrence. But on this point--the value of a social schema in organizing one's experiences--Bartlett errs, surely, in not being more radical. He fails to do the imaginative work needed to grasp what life might be like without any such schemas at all; chaos and disorientation rather than rote recapitulation would supervene, surely. He also fails to take proper account of the necessary directedness of all mental activity, its inherent intentionality.

Alfred Schutz (1972, p. 15), the social phenomenologist, suggests that, "If we simply live immersed in the flow of duration (within the stream of consciousness), we encounter only undifferentiated experiences that melt into one another in a flowing continuum" --a self-cancelling flux, without "places" of rest to which one can return. Without the skill to direct ourselves to reflect upon and constitute the phases within that flow as objects of attention, as "commonplaces," there would be nothing in particular, Schutz

suggests, to grasp on to, nothing to pay attention to or to remember. We could not ourselves give our experiences any meaning. In our "efforts after meaning," as Bartlett called them, there would be no organized "schemes" into which to fit our experiences. In such circumstances our behaviour would become pathological: we would be unable ourselves, to formulate goals, to act from the past towards the future; we would be unable to remember who we were or what we were about. In short, we would be unable to act as self-determining agents. Disorganized memories, irrelevant to our lives, would come and go wholly undirected by "us"-- our actions would bear no relation to our social identities.

Bartlett originally, then, did not set out as his programme the task of discovering the "inner" workings of memory, and he was clearly unhappy with the "storehouse" metaphor for memory. In speaking of the cortex as "a storehouse of past impressions," he thought Head gave "far too much away to earlier investigators" (Bartlett, 1932, p. 200). For:

...the schemata are, we are told, living, constantly developing, affected by every bit of incoming sensational experience of a given kind. The storehouse notion is as far removed from this as it well could be ... I strongly dislike the term "schema" ... it does not indicate what is very essential to the whole notion, that the organized mass results of past changes ... are actively doing something all the time; are, so to speak, carried along with us, complete, though developing, from moment to moment ... I think the term "organized setting" approximates most closely and clearly to the notion required. I shall, however, continue to use the term "schema" when it seems best to do so, but I will attempt to define its application more narrowly.

At that point, it was the social processes involved in the production of stable perceptions and organized memories, which Bartlett still thought important. As he had suggested in 1923, social institutions account for both memory and forgetting. And here, ironically, Bartlett proved

himself right, for as Mary Douglas (1980, p. 25) points out, "The author of the best book on remembering forgot his own first convictions. He became absorbed into the institutional framework of Cambridge University psychology, and restricted by the conditions of the experimental laboratory."

In such circumstances, he came to treat memory as that tradition demanded: as wholly an inner process. Both he and others forgot his original emphasis upon social institutions. For instance, although some of Bartlett's work is reviewed in Gleitman (1981, pp. 294-295), not one hint of its social context is mentioned; neither in Neisser (1967) is it mentioned, although he also claims to be following essentially a Bartlettian approach.

Current Research on Memory

I think that Bartlett, in his original programme was essentially correct and that it provides a basis for constructively criticizing the current directions of much memory research. Memory can best be studied, I want to suggest, as an aspect of what is now coming to be called "ethnopsychology" (Smith, 1985): The study of how members of a society schematize or conceptualize themselves and their own abilities (or are forced to do so by others), and the way in which such institutionalized conceptions or metaphors determine their daily behaviour, their "ontological skills," their knowledge of their way around "inside" their own capacities, so to speak, of how to be a listener, rememberer, imaginer, etc.

The current way of conceptualizing memory stems from an outdated (but not out-grown) dualist philosophy, from as Ryle (1949) has dubbed it, the "official doctrine" of "the ghost in the machine": the idea of a private inner subjectivity radically separated from an outer, public objectivity--with the relation between inner and outer never having been, of course, adequately formulated. As a consequence, our current conception of memory, although purportedly a wholly objective notion is, in fact, a "brother under the skin" with some of the worst aspects of subjectivism: namely the belief that, as private, inner subjectivities, we gain knowledge of our own mental states (as abstract objects) by a form of inner

observation, by in fact introspection. Although discredited as a reliable way of gathering experimental data, cognitive theorists apparently feel no embarrassment in suggesting that, as Anscombe (1957, p. 57) has put it, we possess "a very queer and special sort of seeing eye in the middle of the acting" to look at the traces, structures, productions, or whatever, which are supposed to represent within us our own past experiences.

But even if we did possess such a special eye, consider some of the problems we would face. First, what is it which makes something a representation of something else? As Keith Oatley (1978, p.99) points out, "A scratch on a table where I cut a slice of bread without using a plate or a bread-board is a memory of that event." But is it? As he himself goes on to say (*ibid*, p. 100):

It is not the process of storage, the physical change produced by an event, that is difficult to understand. That indeed is rather trivial. It is the organization of such stored signs and their interpretations which are difficult to comprehend.

Yes indeed, for a memory trace, like the scratch Oatley mentions, could represent the sharpness of the knife, or the softness of the tabletop, the carelessness of the knife's user, a secret message for one person's eyes only, a mark of contempt for the table's owner, anger, despair, frustration, and so on and so on. The point here being that, no matter what the structure or the organization of the scratch, its meaning--what it represents--cannot inhere simply in the scratch itself. And the case is the same for any actual memory trace. It is a matter of the use people can and do make of it--of their intention regarding it--of the aspect of aspects of practical social life in which it is or can be implicated. But to say this is simply to apply the most famous Wittgenteinian dictum of all: that something's meaning is its use in the practical social life of the people concerned, the role that it plays in the various cultural practices with which it is connected. Its meaning is not solely in it (objectivism), nor solely in our heads (subjectivism), but in the social activities going on both between and within the people involved in its use.

We also face a second problem. Suppose our memory trace consisted, not in an abstract and arbitrary structure (as in the knife-scratch example), but in an actual, inner picture of, say, "the-cat-tripped-over-this-morning." Could something like this actually be "a memory" of the cat? Only if I already know what cats are, what tripping up is, what mornings are in general, and how to designate this one in particular. Only then would one be in a position to recognize that what was before one was indeed a representation of something involved in one of this morning's events. But then, would the picture be the memory? Surely, rather than the memory itself it would simply be an aide memoire, for could not many other cues also be equally effective as aids--an auditory record of a newsreader saying the time and the date, followed by the squawk of the cat as I fell over it, for instance, and so on?

The point here is similar to Bartlett's claim, stated earlier, that memory relies upon the prior possession of an ability to direct and organize ones experience. It is that the picture could only be used in recalling the event by beings already in possession of a fair number of conceptual capacities, by beings who can in fact already bring things to mind as required--with the ability, in fact, as Wittgenstein (1953) points out, simply to recognize things as what they are straight off, without any need to compare them with any inner copies of records. To recognize the picture as a picture of the cat, or the squawk as the squawk of the cat, requires one to be in prior possession of a great deal of interconnected knowledge--as to what cats are in relation to other things, as to what their properties are when tripped over, why this cat is one's own cat, and so on. Indeed, if this line of argument is followed through, we find that everything is to a greater or lesser extent involved in everything else. Thus events can only be understood as the events they are in relation to the totality in which they are embedded--a view of memory as "holographic" now being proposed by Pribram (1986).

This conclusion, although it may seem somewhat alarming and conducive to chaos, need not be. For all I am proposing is that the crucial events which make a mental event "a memory" do not all go on in people's heads; they are not processes carried out for people "by their minds."

The claim that people's minds do their thinking and remembering for them is a metaphor, a misleading metaphor in fact. But if we refrain from arguing on the basis of the dualist philosophy as to what must happen in remembering, and instead describe some ordinary everyday examples, then things look very different. The fact is that people themselves do often "do" their own remembering; it is not something done for them by either their brains or minds. They themselves enact many of the important events making for a memory--the way in which persons direct their own activities in checking out their experience as to its meaning and meanings; the way they tie it into and relate it to what they already know and are sure about; how they relate it to what they are trying to do, as well as to the limitations in their circumstances; in short, the intentional aspects of the memory process. Many of these events are of-the-world, so to speak, for they are events which only have currency within a specific set of social practices, customs, and institutions. Thus rather than being couched in a neutral and universal language of inner, neural happenings common to all mankind, a "lingua mentis" a "language of thought," principles of memory are intricately interwoven into the daily social processes of a society--into what some writers call praxis, the different discursive practices by which we intelligibly and legitimately account for ourselves, to one another in our society at the moment.

Conclusions

Dualist philosophy--with its idea of a bodiless mind somehow in control of a mindless body--is suited to a particular praxis, a particular form of social life, and only seems to describe its true nature if that actually is the way in which one does live. It is constructed, however, in metaphors which--as we move away from the idea of people as being largely passive products of their circumstances and towards the idea of them as active agents, able to construct their own circumstances for themselves--then such metaphors, if not already dead, are at least dying. We need a new image or metaphor to guide us. That image can be found, I submit, in the notion of a society of active, inter-related agents who possess the capacity they do--not in virtue of what they are in themselves--but in virtue of the particular social activities going on regularly between them, activities in which their

abilities are continually reproduced, developed, and modified as different demands arise--as in fact the proper Bartlettian notion of "schema" as an "organized setting" demands. It is in this sense that we are able to think of memory as a social institution, and can begin to conceive of studies--not unlike those Bartlett also envisaged-- in which the way in which people do their remembering, the nature of the aide memoires or reminders they use, is understood as a function of the particular way in which they live their lives.

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Collective Memory: Issues from a Sociohistorical Perspective

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When we speak of collective memory, the term "collective" often indexes the notion that two or more people are involved. For psychologists, this typically means that the concern is with how groups function as integrated memory systems. Examining this type of social or collective activity (what I shall term here "interpsychological" functioning) has produced a variety of interesting insights such as those outlined in this issue of the *Newsletter*, and it has motivated much of my own writing (cf. Wertsch, 1985). However, I have recently become increasingly concerned with another sense in which mental functions such as memory can be collective or social. This sense of collectivity has to do with the fact that these mental functions are mediated by sociohistorically evolved (i.e., collective) tools or instruments.

As is the case with my research on interpsychological functioning, my concern here is rooted in the ideas developed by Vygotsky, Luria, Leont'ev, and other figures of what has been termed the sociohistorical perspective (cf. Smirnov, 1975) in the U.S.S.R. From this perspective, the two types of collectivity that I have outlined are by no means separate. This is reflected in Leont'ev's 1981 summary of Vygotsky's ideas on the relationship between mediational means or instruments that are collectively generated and maintained and the interpsychological plane of functioning.

Vygotsky identified two main, interconnected features (of activity) that are necessarily fundamental for psychology; its tool-like ["instrumental"] structure, and its inclusion in a system of interrelations with other people. It is these features that define the nature of human psychological processes. The tool mediates activity and thus connects humans not only with the world of objects but also with other people. Because of this, humans' activity *assimilates the experience of humankind*. This means that humans' mental processes [their 'higher psychological functions'] acquire a structure necessarily tied to the sociohistorically formed means and methods transmitted to them by others in the process of cooperative labor and social interaction. But it is impossible to transmit the means and methods needed to carry out a process in any way other than in external form--in the form of an action or external speech. In other words, higher psychological processes unique to humans can be acquired only through interaction with others, that is, through *interpsychological* processes that only later will begin to be carried out independently by the individual. (p. 56).

This review of Vygotsky's ideas is somewhat biased, reflecting Leont'ev's ideas about what a sociohistorical approach to mind should be. For example, instead of focusing on the concrete dynamics of interpsychological functioning as Vygotsky did (e.g., in the latter's account of the zone of proximal development), Leont'ev tended to view interpsychological functioning almost as an accidental fact about the way that it is possible to transmit "means and methods" needed to carry out a process. And when considering these means, especially language, he tended to overlook the ingenious semiotic analyses that were central to Vygotsky's approach. Instead, he approached these means primarily from the perspective of the more general problem of how it is possible to "assimilate the experience of humankind." This treatment of these issues reflects Leont'ev's general concern with formulating the foundations for a

theory of activity in Soviet psychology, a formulation that was grounded in Marx's ideas about subject-object interaction as laid out in the *Theses on Feuerbach*.

The debate over whether Leont'ev's work represents a legitimate extension or a misappropriation of Vygotsky's work has been going on for several years now (cf. Davydov & Radzikhovkii, 1985; Kozulin, 1984; Minick, 1986). It is my opinion that Leont'ev did not understand, or at least did not incorporate into his own approach, many of Vygotsky's most powerful insights about semiotic mediation and interpsychological functioning. However, as I have argued elsewhere (Wertsch, 1985, ch. 7), I also believe that Vygotsky's approach can be extended in important respects by incorporating some of Leont'ev's ideas into it. In particular, I think that Leont'ev's account of activity can provide a mechanism for extending Vygotsky's account of the social beyond the interpsychological plane. It seems that Vygotsky was beginning to recognize the need to do this late in his life (cf. Minick, in press), but he did not produce a complete account of how individual ("intrapyschological") and interpsychological planes of functioning are tied to social institutional processes. It is only by developing such an account that the Vygotskian approach can become a fullfledged analysis of mind in society instead of mind as it relates to microsociological, interpsychological functioning.

One way to deal with these issues in a concrete way is to focus on the mediational means involved. In his analysis of the tools that mediate human activity, Vygotsky touched on a variety of items, ranging from the relatively simple external artifacts (e.g., tying a knot in a handkerchief to remind oneself of something) to complex aesthetic patterns of inner speech. The tools that I want to consider here fall nearer the inner speech end of the continuum. These tools are in the form of complex verbal texts, in particular, sociohistorically evolved descriptions and explanations of events. For example, a police report of an event would be a text, as would an account provided by the news media.

An essential fact about such texts is that various genres have strict prescriptions for what counts as a good description or explanation.

Furthermore, genres typically differ in their prescriptions. Thus certain facts that must appear in police reports of a crime are typically left out of news accounts and vice versa. Many of these differences cannot be accounted for in terms of accuracy or truthfulness; instead, they are differences in what it is appropriate to represent and how it is appropriate to do so. For this reason, the selection of a particular text genre places a variety of constraints on what can be said and how it can be expressed.

The issue of how these and other mediational means are selected is something that Vygotsky did not deal with in any great detail. A first step in any attempt to do so would be to extend his tool analogy to a tool kit analogy. By talking about tool kits rather than tools, we are making an important statement about the relationship between psychological processes on the one hand and sociohistorical and cultural forces on the other. The modification in the metaphor means that instead of viewing mediational means as ironclad determiners of these processes, they are seen as providing a set of options that at least in principle allow some choice and some possibility of emancipation from established patterns. Schudson (1986) has dealt with these issues in connection with what he terms an "optimistic" view of culture in which individuals or groups are seen as having some degree of conscious choice in the mediational means they employ when approaching tasks. In contrast, a pessimistic view of culture sees culture as constraining us in fixed, deterministic ways, the consequences of which are that we are not aware of them and hence have little hope of bringing them under our control.

In accordance with the tool kit analogy an individual or group is viewed as approaching a task setting that requires a mental function (e.g., memory) in such a way that several different options are at least in principle available for dealing with it. The existence of a range of choices, however, does not mean the task is represented and solved. It is in connection with the evolution of these instruments as well as in connection with the forces that shape their use that we need to go beyond the individual or small group and examine sociohistorical and cultural forces.

The example I shall use to illustrate this point is usually considered to involve some type of reasoning or self-reflection rather than memory, but as I hope to demonstrate, in the end it can also tell us something important about collective memory, in at least one of its senses. My argument is generally concerned with a finding that has emerged repeatedly over the past few decades in psychology and other social sciences. This finding is that subjects in fact often have access to more than one tool or mediational means (e.g., strategy) for responding to a task, but they tend to have a very strong tendency to approach the task as if only one of the tools is relevant. Instead of focusing on whether or not subjects "have" capacities, concepts, or abilities of some sort, this finding has led researchers to focus on the notion that factors of context, habit, or some other type encourage subjects to privilege the use of one tool over others. Findings from research as diverse as that of Bellah, Madsen, Sullivan, Swidler, and Tipton (1985); Cole, Gay, Click, and Sharp (1971); Gilligan (1982); and Luria (1976) are consistent with this general observation. In all cases these results have led investigators to note that people privilege the use of one mediational means over others and ask how this process shapes the way these subjects can represent and solve a task.

The particular example of privileging mediational means that I shall examine here comes from the research of Bellah, et al. (1985). These authors have examined various ways in which contemporary Americans think and talk about individualism and commitment. A fundamental construct that they employ to make their case is that of "language." In this connection they state:

We do not use *language* in this book to mean primarily what the linguist studies. We use the term or refer to modes of moral discourse that include distinct vocabularies and characteristic patterns of moral reasoning. We use *first language* to refer to the individualistic mode that is the dominant American form of discourse about moral, social, and political matters. We use the term *second language* to refer to other forms, primarily biblical and republican, that provide at least part of the moral discourse of most Americans. (p. 334).

What Bellah, et al. call language is what I have above called text, and the various languages to which we have access may be thought of as tools in a kit of mediational means. Hence Americans generally have access to more than one language when they describe and explain their own and others patterns of thought and behavior.

Although Bellah, et al. do not go into detail in the mediational role of languages, they assume that when a speaker begins to speak in one language as opposed to another there are powerful constraints on what that speaker can think and say. This is reflected in statements such as, "Given this individualistic moral framework, the self becomes a crucial site for the comparative examination and probing of feelings that result from utilitarian acts and inspire expressive ones" (p. 78). Thus, implicit in their view is the claim that speakers shape the situation by choosing a language, but they are in turn shaped in what they can say by this choice. Of course this does not mean that a speaker is permanently frozen into a particular text or "mode of moral discourse"--after all, he or she has access to other languages and hence other patterns of thought and speech.

Without even touching on the vast majority of issues raised by Bellah, et al. I would like to outline a few general implications that their arguments have for collectively organized mediational means in general and for collective memory in particular. The first of these is that the languages they mention are part and parcel of a sociohistorical and cultural system; there is no sense in which they are appropriate, powerful, useful, and so forth in an absolute, universal, or ahistorical way. In different societies today and during different periods of American history the languages, or at least what serves as a first language, could be quite different. Hence, what is available in particular people's tool kits depends in a central way on their sociohistorical and cultural situation.

Furthermore, Bellah, et al. do not really address this issue, there are probably important differences in when and where members of a particular culture choose to use one as opposed to another of the languages to which they have access. That is, given that contemporary Americans have access to several different languages, how do they know which one to use on particular

occasions? To say that one of these languages serves as a first language implies that there is a predisposition within the individual in all situations to use one language over others. However, there are obviously powerful contextual constraints that these and other authors have not yet explored which influence the choice of language. Just as sociohistorical and cultural background shape the languages available to someone, they presumably influence the nature of the situations that call for their use.

With regard to memory, the languages that groups speak can be expected to have a profound impact on how they go about remembering something and hence what it is that they remember. Bellah, et al. deal with this issue in their account of "communities of memory." They point out that because a community of the sort that interests them is in an important sense constituted by the history it shares, it must constantly retell its story, "its constitutive narrative" (p. 153). but as should be clear by now, the way in which this story is told is shaped by the language the members of the community speak. Furthermore, this story will be shaped on particular occasions by speakers' selection from among the various languages available to them. For example, instead of recounting a community's history by using the language of individualism, a speaker may use a language of communal commitment to create a nostalgic version of better times. Again, choice of mediational means to a great extent shapes what can and cannot be thought and said, or in this case, remembered.

In the end, we need to combine the analysis of collectively organized mediational means with the analysis of interpsychological functioning. In this connection, several issues arise. For example, if choice of mediational means is a major determinant of how thinking and speaking can proceed, then processes whereby groups make decisions (either implicitly or explicitly) about these means should become a focus of our research. In many instances, the negotiation or imposition of this decision may have more to do with group performance than anything else.

Making statements and suggestions such as these means above all that the study of memory or any other mental function must begin to incorporate findings and methods from a variety of

approaches and disciplines. If we are to take the study of memory, thinking, attention, or any other aspect of human consciousness seriously, we must begin by recognizing the sociohistorical and cultural embeddedness of the subjects as well as investigators involved.

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Dance to the Music: Conversational Remembering and Joint Activity in Learning an English Morris Dance

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Introduction

My general concern is to explore remembering as a collective activity mediated through conversational exchanges. The specific empirical focus of the discussion is a conversation between members of an English folk dancing team. This was recorded at a point when the practice performance of the Morris Dance they were attempting to learn had fallen into complete disarray. Study of the dancers' dialogue demonstrates the importance of remembering collectively for the maintenance and re-creation of such folk traditions. Conversationally mediated remembering created the basis for working out their difficulties in performing the dance. The transcribed conversation revealed the nature and variety of the mnemonic resources the team members brought to bear, both in the definition of the terms used to describe the dance, and in the working out of just how the sequence of dance moves fitted together. Those resources were instrumental in integrating the knowledge for the dance of individual participants with their collective team effort to learn a specific dance that was new to their repertoire. Of particular interest was the team's use of negotiation and argument to define and conventionalize their dance vocabulary. Such locally defined shared understanding of the dance terminology can be viewed as one means of embodying the team's collective memory for the Morris dance.

This discussion is part of a series of studies concerned with exploring the mnemonic potential of conversational activity (see for example: Edwards and Middleton, 1986a; 1986b; Middleton and Edwards, 1986). In those studies we have analysed how conversational activity allows people to coordinate their various versions of the past. Our aim has been to understand how the mnemonic demands of everyday life are met as a

joint rather than as an individual enterprise. The concern was to explore the functional strategies people employ when jointly working out their versions of past events: such as how newly recalled items of information are introduced into the group conversation; how links are established between the original experience and the conversational account; and how does one person's remembering affect another. This led to the recording of examples of joint recall in a number of situations: including family discussions of photographs; student discussions of previously presented class material; and people reminiscing. The section of transcribed conversation discussed here is another example of the qualitative analysis of the content and process of conversational remembering.

However, it is not just a replication in another context of our previous work. The analysis and discussion aims to focus more directly on remembering as a socio-cultural activity. Remembering collectively is shown to be an activity that affords the distribution of the mnemonic burden; the collective coordination of a variety of mnemonic resources; the definition of mnemonic roles and related division of labour between the team members; and the conventionalization of vocabulary of terms that help define and preserve their knowledge of the dance. In other words, the study of remembering occurs within a societal or socio-cultural context, a context where the social influence is not simply the result of the immediacy of joint activity but stems from an instrumentally mediated sociality (Engeström, 1986). Such an instrumentality results from activity manifested in the products and practices embodied in social customs and institutions, artifacts and tools, language and terms of reference of human culture. In that sense remembering is being examined as a culturally mediated collective activity that incorporates the historical dimension in everyday psychological functioning. The overall aim is to illustrate a move toward a more direct study of culture in everyday cognition.

Some Background on Morris Dancing

In order to understand the nature of the problem the members of the team were attempting to solve a brief outline will be given of both the way Morris Dancing is generally performed, and specific details of the particular dance the team

was attempting to learn. Morris Dancing is usually performed by six people. There are many different variants or "traditions" of the Morris, all with their own idiosyncrasies of performance. All the dances involve quite complex movements around a "set," (see Figure 1 for the arrangement of the "set" at the start of most dances). The dancers step in a skip-like manner whilst rhythmically waving their arms holding handkerchiefs or clashing sticks, depending on the particular dance being performed. To the uninitiated or novice dancer it is rather like trying to pat your head while rubbing your stomach!

TOP OF SET	
1	2
3	4
5	6
BOTTOM OF SET	

Figure 1. Six Person Morris Set: The Initial Set Positions.

The exact origins of the dance is unknown, but some would claim it has connections with pre-Christian English cultural traditions (Sharpe & Macilwaine, 1906). The dance routines bear hallmarks of fertility rites and other aspects are apparently symbolic of work and fighting. Towards the end of the last century it was believed that the tradition was in danger of dying out and folklorists made determined efforts to annotate both the dance moves and the music. Since then there has been a considerable growth of interest in Morris Dancing. Many revival teams now exist and the tradition continues to evolve and grow with all the attendant debates of purity and authenticity that permeate the "folk scene."

The usual form of a six person dance is a series of sequences involving a "figure" and a "chorus." The "figures" change as the dance progresses but the "chorus" remains the same and is usually repeated after each of the changing "figures." The basic sequence of movements for most dances is of the following form:

1st Figure followed by a Chorus movement; 2nd Figure followed by the same Chorus movement; etc. through the dance up to 5 or 6 "figures."

Of particular interest here is a commonly occurring "chorus" movement called a "half-hey." This simply inverts the set as shown in the first part of Figure 2. After the the "half-hey" movement the dancers who were originally in the 1 and 2 positions end up at the "bottom" of the "set" and the dancers originally in the 5 and 6 positions finish at the "top" of the "set." The dancers in the "middle" 3 and 4 positions return to where they started. It can be seen that with a "half-hey" danced as a "chorus" the changing "figures" of the dance are performed alternately from the initial and inverted "set" positions as the dance progresses.

Half-hey					
Before		Top of Set		After	
1	2			5	6
3	4			3	4
5	6			1	2
		Bottom of Set			

Slip-hey					
Before		Top of Set		After	
1	2			3	4
3	4			5	6
5	6			1	2
		Bottom of set			

Figure 2. Comparison of "Half-hey" and "Slip-hey": Before and After.

However, a "hey" can also be danced as one of the "figures." Under such circumstances it is usually referred to as a "whole or full-hey." Essentially it involves the dancing of two "half-heys" without a break. This returns the "set" back to the initial positions ready for the "chorus" movement.

One of the issues at stake in the transcribed episode was how to perform the "chorus" of the

dance being practiced. The "chorus" movement of the dance could not be accommodated within the team's mutually understood definitions of either a "half-hey" or a "whole-hey" and the consequences for "set" position as outlined above. The exact details of the problem they faced will be described shortly.

The General Problem

The critical feature of the episode was the working out as a joint activity of an agreed definition of what to call and how to execute a problematic "chorus" sequence. It was precisely because the team was attempting to learn an unfamiliar tradition, within their Morris repertoire, that there was no agreed definition of the terms of reference used to describe the sequences that made up the "chorus." Consequently the execution of the dance became problematic and discoordinated. At a point of extreme discoordination the team spontaneously started discussing and demonstrating their performance of the dance. This included, amongst other things, defining the meaning of the terms of the dance vocabulary and working out the implications for their positioning within the "set."

The Dual Problem Faced by the Team

The discussion revolved around the definition of how to execute what the team variously referred to as the "half-hey," "full-hey" or "whole-hey" movement within the "chorus" of a dance called "Lads a Bunchum." There were two critical features of this dance that the team had not fully appreciated at the point at which the recording was started. First, the dance was from a tradition that was structurally more complex than the dances they had previously been used to dancing. The chorus divided into two repeated parts which included the dancing of two "heys." Second the nature of the "hey" movement could not be defined as either a "half-hey" or as a "whole-hey," (or "full-hey"). It was in fact a movement known as a "slip-hey" (Figure 3, p. 24). This movement has very different consequences on the position of the dancers in the set after its completion than the other two "heys" that the team were familiar with.

The team faced a dual problem of working out of a definition of the "hey" movement relevant

to the new tradition. In addition, they had to come to appreciate that the overall structure of the "chorus" of the dance did not follow the basic and familiar pattern of other dances in their repertoire.

First Problem: "Slip-hey" vs. "half-hey"

The "hey" as part of the "chorus" of the dance could in fact be described as a "slip-hey." This type of "hey" is radically different from the more frequently occurring "half-hey" already described above. Instead of the set ending up inverted, the "1's & 2's" move down to the "bottom" of the set and the other four dancers "slip" up the set one position to fill the gap left by "1's & 2's." Figure 2 (p. 24) represents these differences between the "half-hey" and the "slip-hey" diagrammatically.

Second Problem: The "Structure" of the Dance

The complication in the structure of "Lads a Bunchum" stems from the fact the "chorus" is not a simple repetition of the same movement as the dance progresses. It has changing features that actually give the dance its overall distinctiveness. The structure of the dance can be clearly distinguished from the usual "Figure 1 followed by a Chorus; then Figure 2 followed by the same chorus; etc., until all the figures have been completed." There are changing "corner movements" within each "chorus." The exact nature of the "corner movements" need not concern us here. They simply involve executing a dance move with the person diagonally opposite in the "set"; i.e., 1 with 6, then 2 with 5, and finally 3 with 4. The dance therefore takes the following form:

First, Figure 1 followed by a "Chorus" which is itself made up of:

1st "Corner movements" (by diagonal pairs one after the other), followed by "slip-hey"; then repeat 1st "Corner movements" followed by another "slip-hey."

Second, Figure 2 followed by a "Chorus" which again is made up of:

2nd "Corner movements" (by diagonal pairs one after the other) followed by "slip hey"; then repeat 2nd "Corner movements" followed by another "slip-hey."

This basic pattern is repeated until all the "figure" and "chorus" movements have been executed. It can be appreciated that although the "chorus" is complex, the inclusion of two "slip-hey"s, returns the dancers to their starting positions in the "set" ready for the next "figure."

Towards Identifying the Dual Problem

The transcript reveals a gradual working towards the team explicitly recognizing the dual complexity of the dance's "slip-hey" and "chorus" movements. An initial inspection of the conversation shows how the changing definition of the "hey," and where it fitted into the complex structure of the "chorus," provided an important constraint on the content of the discussion. It was not the case that the team was totally ignorant of what to do, but to socialize Bartlett's phrase, the discussion represented their "effort after a consensus of meaning" concerning competing interpretations of their performance of the dance. The transcript is set out below with comments concerning significant features of their redefinition of the dance terminology describing the "hey" and "chorus" structure.

The conversation was openly recorded as a participant observer. It can be seen from the transcript, (line 31: "he's taping all this to analyse this"; and line 69: "you recording this D"), that the team was fully aware that their conversation was being tape recorded. The transcription simply aims to convey the content of what was said using the minimum of interpretive conventions. No assumptions are made concerning punctuation, except for the use of "?" to indicate a question. Side comments, banter and unclear contributions are omitted and indicated with "(....)". Significant pauses are marked with "//," and continuation of speech with "(&)." Simultaneous speech is also indicated by indentation. Names are abbreviated with initials and musicians are marked with a "*" to help with identification in later discussion. The transcript is divided into a number of sequences to aid the discussion in the text.

Immediately prior to the recording, two "sets" of six dancers, performing simultaneously, had failed to complete the dance successfully. V, the "foreman" in charge of teaching the dance, had then attempted to demonstrate the "hey" movements within the "chorus." The discussion started where he had requested confirmation that what he had demonstrated fitted in with the number of bars of music the musicians had played. He had in fact done two demonstrations, the second of which proved to be a wrong interpretation of what to do.

Two interrelated topics emerge, and compete for the team's attention in the ensuing conversation: the definition of the "hey" and the concern for fitting together the complicated "chorus" movements.

Sequence 1

- 1 T: (...) ending up in the other position upside down
- 2 SM: I dunno I can't remember that
- 3 E*: no no
- 4 V: that was it wasn't it?// that's all yo do
- 5 C: yeh
- 6 V: yeh
- 7 C: yeh
- 8 V: it's not it's not double that music it's once into that music and then you go straight into the// going across again
- 9 S*: sure there isn't another thing that's only four bars of music?
- 10 SE*: (...)
- 11 V: yeh because because they're gonna do they're gonna go to the corner movement and back and then then another "half-hey"

It is clear (from lines 8 and 11), that "V" had realized the potential complication of the chorus sequence: "going across" was a reference to the "corner movement" within the "chorus." Also in response to "S's" question about the number of bars of music (line 9), "V" had also realized that there was a "corner movement" to execute after each "hey" movement, (line 11). However, at that point "V" was defining the "hey" as a "half-hey." The problem was that his second demonstration had not fitted his description of what to do. Neither was there any distinction drawn between "corner movements" as "figures" and "corner movements" as a repeated feature within the

"chorus" of the dance they were practicing. His version was therefore challenged by another musician.

Sequence 2

12 **E***: no no
 13 **T**: yes you're up so you'll turn the set upside down
 14 **V**: 'cos you've got
 15 **E***: tops get to the bottom and the other two come up and
 16 **SE***: destroying the intrinsic merit of the dance
 17 **E***: then you step on the spot// then you finish up that phrase on the spot// then you gallop back and finish up the phrase on the spot
 18 **SE***: he's right
 19 **C**: the
 20 **SE***: absolutely
 21 **C**: the music was right as you played it
 22 **SE***: the music is always right C
 23 **T**: (sighs) what the hell's it say....(refers to book)
 24 **V**: that makes it a "whole hey" then

Although "E" is accused by another musician of "destroying the intrinsic merit of the dance," his interpretation of the dance to fit the music was temporarily accepted both by "SE" and by "V." Significantly this led "V" to redefine the "hey" as a "whole hey," thus establishing the issue of how to define the vocabulary as an explicit topic of discussion for the team (line 24). The first element in the dual problem of interpreting the dance had thus been more clearly identified. However, "E's" interpretation, as another musician, had completely omitted any dancing of the "corner movements" after each part of the "hey" within the "chorus." Thus although the complication in the structure of the "chorus" continued to be brought into the discussion, its precise nature remained problematic and ill-defined.

The problem of defining the "hey" movement as a "whole-hey" framed the ensuing discussion, while the complications of the structure of the "chorus" movement also continued to surface.

Sequence 3

25 **A**: yeh but how do you finish off in the opposite corners then
 26 **?**: you don't
 27 **C**: this doesn't invert the set anyway
 28 **V**: you don't// you don't
 29 **T**: corners and "half-hey"// repeat (reading handbook)
 30 **SE***: why don't you when you did it the first time you did some stepping in the middle why don't you do that and then you do the other (&)
 31 **K**: he's taping all this to analyse this
 32 **SE***: (&) "half-hey" and some stepping in the middle
 33 **V**: because all these people are telling me I'm doing it wrong (laughs)
 34 **:** (general laughter)
 35 **C**: I can't remember how the set
 36 **K**: (...)
 37 **C**: hows the set get inverted
 38 **SE***: (...)
 39 **V**: it doesn't
 40 **K**: (...)
 41 **C**: ever?
 42 **P**: (...)
 43 **K**: (...)
 44 **T**: it says here// (reading the book again) V it says in the book corners and "half-hey" repeat
 45 **K**: (...)
 46 **V**: yeh
 47 **SE***: yeh
 48 **V**: that's what I was going to do
 49 **TC**: chorus and "half-hey" chorus and "half-hey"
 50 **SE***: oh so you need two lots of music if you are going to repeat it
 51 **K**: (...)
 52 **V**: yeh
 53 **P**: (...)
 54 **V**: it's "half-hey" not a "full-hey"
 55 **K**: (...)

The plausibility of "V's" redefinition of the movement as a "whole-hey" was immediately challenged on a two counts. First, if it was a "whole hey," which would return you to your original positions, how do you end up in the inverted position, (line 25)? That reintroduced whether the "set" ever inverted during the dance, (lines: 27; 37; 39; and 41). That was crucial because a key aspect of the dance was the unique consequences of the

"hey" movement which involved "slip" rather than inversion, (see Figure 2). Second, the overall structure of the dance, with respect to the repetition of whatever the "hey" was within the "chorus," continued to be worked over by different members of the team, (lines: 29; 30; 32; 44; and 49). If it was a "whole-hey" there would have been no place to execute any "corner movements." The "chorus" as involving the repetition of a "hey" of some description also emerged again (lines 44 and 49). Consequently, "V" retreated to his original definition of the "hey" as a "half-hey."

Sequence 4

56 **SE***: but you did a "whole hey" you went there and back (referring to "V's" second demonstration)

57 **?:** (laughter)

58 **K:** (...) (aside)

59 **V:** because somebody told me I had got to they said no we've got to do it this way

60 **SM:** no you were right the first time (referring to "V's" first demonstration)

61 **?:** no

62 **C:** the set's not inverted (...)

63 **TC:** does that imply the middles become ends for the second half of the chorus

64 **SM:** yeh

After "V" had acknowledged the error in his second demonstration (line 59), "TC's" contribution (line 63), marked a crucial point of balance in the overall redefinition of the "hey" movement. Although "E" had originally articulated the "slip" nature of the "hey" (line 15), this had not been taken fully account of in the teams consequent discussion. "TC's" restatement of the positional consequences of the "slip-hey," provided a solution that was immediately recognized as solving the problem of inversion. The following comments of the team marked a general recognition that they were dealing with a "hey" movement that was radically different to one that they usually danced. This can be seen in the way the discussion developed. "P" at line 65, interjects a tennis score marking the fact that it was neither a "half-hey" nor a "whole-hey." Indeed he referred to a new, as yet undefined category: "your hey."

Sequence 5

65 **P:** 15 all let's try your "hey" //

66 **SE:** do it again and see what looks nice //

67 **V:** we'll do it my way sod it

68 **All:** "we'll do it my way" (chorus singing and laughter)

69 **?:** you recording this D

70 **K:** right what's your way?

71 **?:** what's your way?

72 **V:** what I was going to do in the first place (referring to his first demonstration)

73 **K:** what was you going to do in the first place?

74 **V:** "half-hey" // (music)

75 **K:** we'll do a "half-hey" then

76 **TC:** half a "slip-hey"

77 **V:** half a "split-hey" (&)

78 **DP:** and V did you do a "split" at the end because I thought I thought I saw you do one?

79 **K:** "di-da-dit"

80 **V:** (&) with that long music played

The "your way" and "my way" was finally defined by "TC" as the "slip-hey" (line 75). A new term had emerged for inclusions in the team's vocabulary of terms describing the dance: a term that marked the distinctive "slip" properties of the "hey" in "Lads a Bunchum." Its exact consequences had not as yet been explicitly defined, but the potential for getting themselves out of their definitional bind had been created.

It is interesting that "V" misheard it and described it as a "split-hey." This led onto a side exchange, (lines 78 and 79). The "split" reference by "V" was taken by one member of the team to refer to a particular type of foot movement that can also be referred by the term "di-da-dit." Not everyone was on the right track at that point in the discussion.

However, the discussion led "V" to perform another demonstration of the "chorus" movement including the repetition of the redefined "slip-hey."

Sequence 6

- (V demonstrates)
- 81 **SM:** yeh like that
- 82 **S*:** I am sure that's what we used to do at (...)
- 83 **E*:** that's right
- 84 **K:** is that what it is?
- 85 **V:** that's what we're gonna do
- 86 **C:** that's what we have just done
- 87 **E*:** that's right
- 88 **P:** that's what WE did
- 89 **TC:** that's what WE did
- 90 **J:** we did (and others)
- 91 **K:** we done two besides that
- 92 **TC:** that
- 93 **V:** WE'VE DONE
- 94 **K:** we've been all the way there and back again
- (V demonstrates what had been danced)
- 95 **TC:** oh no no no no no no no no
- 96 **C:** oh no NO we did what you've just done we say that's right
- 97 **V:** what's the argument about then RIGHT

The discussion had developed a basis for the team members to compare various versions of what they claimed could or could not be performed. However the exact details of the second aspect of the dual problem, the the double nature of the "chorus" movement, had not been explicitly incorporated with the redefined "hey" movement. That was what occurred next.

Again "TC's" contribution was instrumental in stating explicitly a way of resolving the second dimension of the problem the team faced. He recognized that the "chorus" could be made up of two parts (line 99 "...the other half of the chorus"). As with the "hey" that information had already been stated on a number of occasions, but had not been incorporated into the working consensus of the team about what they should or should do, (see lines 11; 29; 30; 44; and 49). It provided "V" with the opportunity to confirm what he had been trying to get over all along, that the repetition of the "slip-hey" returned the "set" to its starting position ready for the next "figure," (line 103). Again the statement was marked by

Sequence 7

- 98 **T:** V I think the middles (...) (trying again from book)
- 99 **TC:** but when we get to the other end do we do the other half of the chorus?
- 100 **V:** yes
- 101 **SE*:** we've reached a consensus point then
- 102 **K:** yeh// scrap it
- 103 **V:** you'll come back to exactly the point you were at to start with
- 104 **A:** where on earth do you where on earth
- 105 **C:** (...)
- 106 **T:** (...)
- 107 **SE*:** it's an ongoing consensus situation

subsequent contributions, as one that had resolved the teams difficulties in some way. This can be seen in the comment acknowledging "consensus," (line 101), and in the subsequent repetition of this comment as a cliché, (line 107).

The final sequence of conversation demonstrates that the issue was far from being totally resolved. Various members of the team still had doubts concerning exactly what they should do.

Sequence 8

- 108 **T:** I think the middles (...) (from the book again)
- 109 **V:** I'll get my authority stamped on this side sometime (laughs)
- 110 **K:** GET it stamped in the middle of your forehead you know "bramble"// "boss"
- 111 **V:** HOW about "foreman"
- 112 **C:** you end up you come back and the set does not invert (aside to T)
- 113 **K:** no (laughs) nooo
- 114 **DM:** have we decided on that then
- 115 **V:** RIGHT// WE WILL DO//THIS (laughs)
- 116 **DM:** what's that?
- 117 **K:** doing what we did what he did
(V demonstrates humming the tune and the accordion joins in)
- 118 **J:** (...) we do
- 119 **T:** that's a "full-hey"
- 120 **DM:** no
- 121 **K:** well that'll do
- 122 **DM:** it's two "half-heys"
- 123 **K:** don't argue (to T)

124 V: that's what we will do
 125 DM: that's what we're doing
 126 J: now tell us what the middles do
 127 K: it says "St. Michael's" on my underpants but I
 am not (to T with reference to book)
 128 DM: it fits the music
 129 SE*: (...)
 130 DM: (...)

(general hubbub)

131 K: come on let's do it like this he's the man
 132 SM: (...) "half-hey" in the same place but don't
 worry about it
 133 V: I'm not worrying about it
 134 K: he's the man
 135 ?: let's go let's
 136 V: from the beginning NOW

(laughter)

Music and the dance restarts

Even though not all the team members had understood exactly what should or should not be done, the team had clearly moved to a point where it felt confident enough to have another go at the dance. At that point, the term "slip-hey" had not taken root in the vocabulary of the team, but the consequences of this different form of "hey" were clearly appreciated in that "the middles" (referred to in line 126) had to move in a different way to what was usually done. The dual problem of the pattern of the "hey" and where it fitted into the more complex "chorus" movement had been brought into the collective view of enough members of the team to allow the dance practice to proceed in a coordinated fashion. Although reference to the "hey" as a "slip-hey" only occurred once, that was how the team subsequently referred to it in their future attempts to perfect that particular dance.

Remembering as a Collective Activity

The distribution of the problem. From the transcript we can observe the gradual emergence of an appreciation of the problems that faced the team in their performance of the dance. It is also self-evident from the transcript that

participation in the discussion was widely distributed across the membership of the team. Excluding side comments and banter, 9 out of the 15 members each contributed at least 6 substantive comments aimed at elucidating how to perform the dance. (Rank order of substantive contributions: V=22; SE=11; K, C=9; T=8; TC=7; SM, E, DM=6; S, A, P, ?,=2; DP, J=1). Even though the "foreman" tended to be at the centre of the discussion, as would be expected from his role as tutor to the team, the burden of finding a solution to their problems was distributed across the team members. The question is whether, and in what sense, that distribution of participation can be represented as a form of collective activity that went beyond ordinary sociability, to be instrumental in the learning and interpretation of the dance.

Team members as a mutual resource.

Overall it can be seen that the team members used each other as resources to determine a means of getting the dance going again. The discussion formed a set of relatively well connected interpretations and counter interpretations of what had been done and what should be done next. Although the substantive contributions did not constitute a totally coherent reinterpretation of what to do, many did relate and follow on from one another. There were many examples of the use of anaphoric reference and connective terms that served to link together contributions concerning the semantics and pragmatics of the dance performance. For example, anaphoric terms of reference such as "this," "that" and "it" were used in connection with linking back to previous demonstrations of the dance (eg.: lines 4, 30 and 82 to 92); to previous interpretations of position (eg.: line 30 with respect movement within the "chorus"; lines 27 and 63 with respect to whether the "hey" inverted or slipped the "set"); to the number of bars in the musical accompaniment (eg.: lines 8, 9 and 17); to previous definitions of terms used to describe the "hey" (eg.: lines 24 and 54); and finally reference to the handbook containing written versions of the dances (line 44). Examples of connective terms and phrases, used to predicate new contributions on previous ones, thus establishing a form of coherent and interrelated argument, were the use of: "because" (lines 11, 33, 59); "so" (line 13); "yeh but," "but you" (lines 25 and 56); and "does that imply" (line 63). In other words

what different members said was not just the product of their individual perspectives on the dance. What they contributed was grounded in, and in part grew out of, the developing discussion that provided the means to define a shared local context for their argumentation and interpretation.

The mnemonic resources used in the discussion. What was particularly interesting was the manner in which their contributions to the conversation were framed. A number of issues formed the basis to establish criteria for evaluating competing suggestions concerning what to do next. Those issues were concerned with aspects of the dance that were products and inventions of the Morris dancing sub-culture, eg., the music, the vocabulary of terms, and the nature of the movements, and as such they embodied various dimensions of the history of past performances. In that sense they constituted a form of collective memory for the dance in the way they served to constrain and regulate the direction and content of the team's discussion.

Outline of Mnemonic Resources Used by the Team (Figure 3, next page)

Five main categories of resource can be identified from the transcript, they included: the handbook containing an annotated version of the dance; the accompanying music as a yard stick for working out the timing and length of any particular movement; actual demonstrations and reference to demonstrations of how to perform particular features of the dance; positional consequences for the dancers of their movement within the "set" with respect to whether the "hey" inverted or slipped positions, and with respect to the overall execution of the "chorus" movements; and finally, definition and redefinition of the vocabulary describing essential features of the dance. There are obvious overlaps across some of those categories of resource. However, they are not outlined as mutually exclusive of one another, but as overlapping frames of reference that had functional significance in the team's efforts to resolve their difficulties.

General Use and Distribution of Mnemonic Resources

General use of mnemonic resources. What was particularly interesting in the team's struggle to appreciate where they had gone wrong was the variety of resources they were willing to entertain as providing an in-road into their problems. Figure 3 represents the distribution of use of those resources by the dancers. The figure identifies which dancers drew off which resource as their conversation developed. Interestingly, what might be thought to be the most accessible and self-evident means of solving their problems were not necessarily the ones immediately adopted by the team. For example, the written notes in the handbook, and actual demonstrations, might be thought to have offered straightforward means of determining where they had gone wrong and what they should do next. Both those resources were brought into play by the dancers but not to the exclusion of other frames of reference.

Written notes. The handbook certainly offered a useful source of reference incorporating annotated versions of previous performances of the dance. In that sense it embodied a form of collective memory of how to perform the dance. This was recognized by "T," and he made persistent efforts to incorporate information from the book into the discussion (see lines 29, 44, 98, 108). "T's" book related contributions covered both aspects of the dual problem: the nature of the "hey" movement as defined by the movement of the "middles" (line 108), and the complexity of the "chorus" movement (lines 23, 29, and 44). At best though, the references to the book were only acknowledged by other team members as confirmation of the authenticity of what had already been concluded in earlier discussion (eg, lines 44-48). There was no general attempt to take the book as the key interpretative and mnemonic resource. Indeed there was almost a "collective" resistance to "T's" quotes from the book. This was finally voiced with "K's" comment admonishing "T" not to believe everything that appeared in print! (line 127).

Why should the team have preferred to work out a solution through the application of alternative sources of information that were apparently far less explicit? This must partly result from the difficulty of interpreting the notational contents of

MNEMONIC RESOURCES							
	DEMO	POSITIONAL CONSEQUENCES			BOOK	MUSIC	VOCAB
	<u>1</u>	chorus 2a	invert 2b	slip 2c	3	4	5
Seq.1	-	-	1 T	-	-	-	-
	<u>4 V</u>	-	-	-	-	-	-
	-	8 V	-	-	-	8 V	-
	-	-	-	-	-	9 S*	-
Seq.2	-	-	13 T	-	-	-	-
	-	15 E*	-	15 E*	-	17 E*	-
	-	-	-	-	-	21 C	-
	-	-	-	-	-	22 SE*	-
Seq.3	-	-	25 A	-	-	-	-
	-	-	27 C	-	-	-	-
	-	-	-	-	29 T	-	-
	30 SE*	30 SE*	37 C	-	44 T	-	-
Seq.4	-	49 TC	-	-	-	50 SE*	-
	-	-	-	-	-	-	54 V
	56 SE*	-	-	-	-	-	-
	60 SM	-	62 C	-	-	-	-
Seq.5	-	-	-	-	-	-	65 P
	72 V	-	-	-	-	-	74 V
	-	-	-	-	-	-	76 TC
	-	-	-	-	-	80 V	77 V
Seq.6	80 V	-	-	-	-	-	-
	81 SM	-	-	-	-	-	-
	82 S	-	-	-	-	-	-
	83 E*	-	-	-	-	-	-
	84 K	-	-	-	-	-	-
	85 V	-	-	-	-	-	-
	86 C	-	-	-	-	-	-
	87 E*	-	-	-	-	-	-
	89 TC	-	-	-	-	-	-
91 K	-	-	-	-	-	-	
93 V	-	-	-	-	-	-	
-	94 K	-	-	-	-	-	
96 C	-	-	-	-	-	-	
Seq.7	-	-	-	-	98 T	-	-
	-	99 TC	-	-	-	-	-
	-	103 V	-	-	-	-	-
Seq.8	-	-	112 C	-	108 T	-	-
	-	-	-	-	-	-	-
	115 V	-	-	-	-	-	-
	117 K	-	-	-	-	-	119 T
	-	-	-	-	-	-	122 D
	124 K	-	-	-	-	-	-
	-	-	-	126 J	-	-	-
-	-132 SM	-	-	-	128 D	-	

Figure 3. Mnemonic Resources. Key:

1: Demonstrations (underlined) and reference to demonstrations.

2: Consequences on dancers' positions in "set"

2a: Implications of "chorus" movements

2b: Implications of inversion of "set"

2c: Implications of slip of "set"

3: Reference to handbook.

4: Reference to music.

5: Definition of a term in the vocabulary (the "hey").

The numbers refer to the lines in the transcript and the letters to the dancer who made the contribution with respect to that particular resource at that point in the conversation.

the handbook. Whilst not explicitly referred to in the conversation, handbooks very often create problems in their own right because they lack consistency in their terms of reference and description. For example, the handbook the team was using (Bacon, 1974), referred to the "hey" as both a "half-hey" as read out by "T" (line 49), and as a "slip-hey" in its description of "Lads a Bunchum." In addition, taking meaning from a written text placed an extra burden, or step, in the interpretative activity of the team. It was easier to work through the implications of what has just been physically performed or demonstrated than to work a hypothetical version from the book and then map that onto any past or prospective performance. Finally, the team was attempting to learn a dance that was new to their repertoire. The use of a handbook is less problematic when used as a reminder of what to do for dances already in that repertoire rather than as a resource for new additions to it. In one sense the written versions of the dances are only a guide "that" something can be done. They do not and cannot totally encompass "how" the dances should or could be performed. Even if there were a fully consistent conventional notation recording the "Morris," that would not completely reflect what the dance is in its performance. That knowledge can only be fully expressed in the continuing re-performance of the dance. That is the very essence of a living cultural tradition. The team was in the business of creating a context that allowed them to assess the efficacy of their performances, or as one of them put it, in the final analysis: "do it again and see what looks nice" (line 66).

Demonstrations and reference to demonstrations. Physical demonstration of what to do and reference by team members to those demonstrations were certainly a significant feature of the team's search for a viable version of the dance. It was the "foreman's" appeal for confirmation from team members that he had produced an acceptable version that created the initial grounds for the discussion (line 4). However, the significance of any demonstration had to be worked out and articulated within the overall context of the unfolding discussion. In themselves the demonstrations, which were all performed by the "foreman" (lines 80, 93 and 115), did not resolve anything until the team had worked up criteria for marking the distinctive features of the dance on

the basis of other resources. While the "foreman" may well have worked out what to do and have incorporated it into his performance, the successful communication of the salient features of that interpretation rested in, and was mediated by, the ensuing discussion. That process of negotiation served two purposes. It ratified the authenticity of a particular interpretation of the competing demonstrations of the dance initially offered by the "foreman" in his role as tutor, and at the same time provided the means of transmitting an explicit appreciation of that ratified version to other members of the team.

Explicit reference to the "foreman's" demonstration served a number of purposes and was used by numerous members of the team as the discussion progressed. Both dimensions of the dual problem were handled in that way (eg.: the structure of the "chorus" at line 30; and the "hey" movement at line 56). However, the most significant use of reference to demonstration occurred well into the discussion immediately following the "foreman's" first re-demonstration of what to do (line 80). At that point the team had established a common frame of reference that allowed them to evaluate that re-demonstration in relation to what they thought they had attempted to dance and in relation to the "foreman's" earlier contradictory demonstrations (lines 81 to 92). This latter point will be elaborated in a later discussion of the overall distribution of the resources within the conversation.

Positional consequences. It was inevitable that consequences of position within the "set" should have been a significant aspect of the team's discussion. The very essence of their problem lay in where they should have moved to as the dance progressed. Discussion of the consequences for dancer's position within the "set" therefore mirrored the critical features of the two problems they faced: the unique nature of the "hey" and the complexity of the "chorus."

It has already been pointed out that the critical feature of the "hey" was that it did not lead to inversion of the "set." This aspect was initially broached by "T" (lines 1 and 13 referring to "turning the set up side down"), and "A" (line 25: "how do you finish off in opposite corners then"). It was "C" who took it up as a recurring theme, first as a

straightforward statement that the "hey" did not invert the "set" (line 27), and then subsequent discussion of the possibility that it might (line 37), followed by a reversion to his initial position that it did not (lines 62 and 112). It was the denial of inversion, at line 62, that created the context for "TC's" break through implication: "does that imply the middles become ends for the second half of the chorus" (line 63). Direct reference to some notion of slip had only occurred once before that point was articulated by "TC" ("E" at line 15: "tops get to the bottom and the other two come up...").

Finally, positional consequences were used to work out the nature of the "chorus." This involved initial contributions by "V," "E*" and "SE*" (lines 8, 11, 15 and 30) that contradicted one another in that the musicians' interpretations did not allow for the execution of the "hey" as part of the "chorus." This was initially recognized by "V" (line 11) but took until "TC's" contribution (line 99) for it to be recognized that the "chorus" fell into two parts that offered the possibility of including two "slip-heys" at the end of each part of the chorus.

The music. The transcript shows that the music was used on a number of occasions to provide a framework of interpretation (lines: 8; 9; 17; 21; 22; 50; 80; 128). At a general level the music was seen to be an accurate arbiter of what to do. That can be seen reflected in "SE's" comment (line 22: "the music is always right C"), and in "D's" comment (line 128: "it fits the music"). More specifically, on other occasions, it was used in an attempt to work out how the movements of the dance fitted in. That was what happened at the beginning of the discussion where the "foreman" attempted to use the length of the music to define what to do (line 8). The implications of his interpretation was immediately challenged by two musicians, (lines 9 and 17). As has already been discussed, the version of the dance proposed by "E" to fit the music led to an inaccurate redefinition by "V" of the "hey" as a "whole-hey." That could only come about because of the confidence the dancers placed in the music as an accurate bench mark for working out plausible alternatives to problematic moves. Whilst the interpretation offered by "E" in that instance

proved to be in error, it was the working out of the implications of the number of bars available to dance that initiated the discussion to redefine the "hey" and place it in its appropriate context within the "chorus" of the dance.

In comparison with consequences of position and demonstrations both the handbook of dance notation and the music were available in written form. However the use of the music was always in relation to the musicians' expertise rather than with reference to its notation in the book like the dance notation. In that way it was immediately more accessible than the dance notation and was afforded a different level of confidence by the rest of the team.

The vocabulary. The redefinitions of the "hey" formed an important resource in the team's conversation about the dance. They marked crucial boundaries in an audit by the "foreman" of progress toward an understanding of the "hey" (lines 24 and 54), and in later identification of the "hey" as having special properties in the dance in question (lines 65, 74, 76, 77, 119, 122). "V," as the "foreman" played a prominent role in stating those redefinitions (eg., lines 24, 54, 74, 77).

Distribution of the Use of Mnemonic Resources

From Figure 3 it is possible to see that during those first five sequences the team's discussion ranged across all the resources in their efforts to resolve the problem of the "hey." It was only when it became apparent that they were dealing with a unique and different form of "hey" that the focus of their discussion dramatically shifted to a concentration on demonstration and reference to demonstration as the means of arbitration. This transition occurred because the team had created for itself a consensus of understanding that allowed them to identify the distinctive features of the dance in both the "foreman's" demonstrations and their own attempts at performing the dance. The deictic and anaphoric reference of the contributions, in Sequence 6 of the transcript, were only possible on the basis of the team having identified the beginnings of a shared interpretive consensus that contextualized the comparison of their performances with those of the "foreman's." Interestingly, as the second problem, concerning where the

"hey" fitted into the "chorus" movement, reasserted itself in Sequence 7 and 8, a broader range of resources was once again used in the search for a solution. Overall, the pattern of use of the resources marked transitions in the emergence of the team's nascent identification of the dual problem in performing the dance. The conversation afforded the means of evaluating alternative interpretations and in so doing brought the team closer to a point where they could physically execute the dance.

Specialization in Use of Mnemonic Resources: A Division of Labour

An interesting division of labour manifested itself with respect to deployment of the resources by the team members. There was a tendency for one member of the team to come back continually to a particular frame of reference in working out what to do. This can be seen in "T's" use of the book; "C's" concern with whether the "hey" inverted the "set" or not; "V's" redefinitions of vocabulary, and use of actual physical demonstrations of the dance; and the musicians' use of the music as a bench mark for working out what to do.

That division of labour in the team's interpretative and mnemonic activity can be seen as an expression of individual differences that grow out of the socio-cultural basis of human activity. Domain specific strengths, weaknesses, inclinations and trade-offs within any group become embodied in the mnemonic roles people take on as they collectively remember in the service of individual and corporate goals. However, those individual "differences" or "characteristics" are not the property of a "good" or "bad" memory that exists independent of the activity of remembering in any particular setting. They are defined in, and are the property of, contextually situated mnemonic activity. Within the team's conversation different individuals took on the "advocacy" for different dimensions of the dance. That demonstrated one of the functional benefits to everyday cognition of conversationally mediated remembering. It affords the expression and coordination of a variety of perspectives on the same issue. The division of labour embodied in the taking on by the dancers of apparently preferred mnemonic roles was directly instrumental in their distributing the burden of working out an appropriate version of the dance.

The division of labour can also be seen as an expression of social institutional constraints in the team's organization. Members do not have equal status with respect to the authority to claim authenticity for any particular suggestion as to how the dance should have been interpreted. The "foreman," as the person placed in the position of authority to teach the dance, would be expected to have responsibility for any final arbitration in the definition of problematic moves. The execution of demonstrations and the marking of terminological redefinitions were products of that organizationally defined authority. The musicians held a similar position of authority with respect to any calibration of the dance using metrical properties of the music. The resources individual team members used and the authenticity they were afforded by other team members were not arbitrary. Remembering what had been done and working out what to do next were certainly products of a social organization that extended beyond the immediate circumstances. The social organization of the team circumscribed its immediate actions and provided another means of linking past experience with the present in a way that transcended the mentality of any one individual.

Conventionalization of Terms: The Vocabulary as a Tool

As with any specialized sphere of activity, Morris dancing has evolved a wide vocabulary of terms that dancers use to describe the many features of the dance. Some are self-explanatory but many are idiosyncratic.

Some examples of the Morris dance vocabulary. No attempt will be made to define in any comprehensive way all the terms used to describe the various aspects of the dance, but to give an impression of the range and nature of the terminology, some examples are listed below.

Terms for "figures" and "chorus" movements, and "set" positions include: foot-up; foot-down; half-gip; whole-gip; gipsy; cross over; back-to-back; cross-and- turn; spots; rounds; half-hey; whole-hey; slip-hey; tops; bottoms; and position numbers.

There are a variety of descriptive terms for "stepping" with legs and feet: beetle squashers; hockle backs; r t b's; di-da-dit; splits; stars; single step or 1 hop 2 hop; double step or 1, 2, 3, hop; sherbourne or 1, hop, 2, 3; galleys; capers.

Finally for "arm," "hand," "stick" and "handkerchief" movements: bunched hankies; circle; dib; butts and tips; overhead; doubles; singles; strike.

These are just a few of the terms. There are many more whose meanings sometime change according to the tradition or version of the dance being performed.

Vocabulary as a tool. Without an agreed meaning of the terms of reference used to describe the dance sequences it would be extremely difficult if not impossible to execute the dance. The vocabulary is an essential tool in the performance of the dance. It is one of the principal resources that dancers use to know what to do when, or to be reminded during the dance, by others, of what to do next. One of the main difficulties novice dancers face is understanding the "language" of the dance. Once mastered an individual dancer is no longer reliant on what they individually remember of any particular dance. It is frequently reported by experienced dancers that they do not "know" exactly what to do in a dance until they are actually performing it in the "set." They rely on the mutual support of other dancers who call out the moves as the dance progresses. The collective knowledge embodied in the terminological "shorthand" of the dance affords that distribution of the mnemonic burden concerning how the dance is to be performed amongst the team members. The vocabulary is a culturally created and defined corpus of knowledge that is instrumental in the recall of what to do in the dance and in the coordination of the dancers's expertise.

Conventionalization of the terminology. The nature of the dual problem that faced the team hinged on the definition of the vocabulary of terms that the team was using to define the nature and structure of the dance. The argument here is that those terms are more than mere descriptions of what happens at what point in the dance, they are directly instrumental in the

continuing recreation of the dance. The team's conversation revealed their definition of the "hey" was inappropriate in relation to the dance they were attempting to perform. It was their attempts to identify where they were going wrong that led not just to a redefinition of their working definitions of the terms they were using to describe the "hey" but to the introduction of a completely new form of description that marked the distinctive feature of the "slip-hey" in the new addition to their repertoire, "Lads a Bunchum." Their dilemma and its resolution rested in the social activity that conventionalized the interpretation of the "hey" terms. Thus while their initial interpretations of the "hey" were inappropriate, their attempts to make those interpretations fit led them to identify the novel features of the "slip-hey." It also led to the introduction of a term new to their shared vocabulary that would mark those novel features and serve to remind them of what to do on subsequent occasions.

Conclusions

Remembering is habitually treated in the psychological literature as an individual process that allows people to function appropriately in both solitary and social circumstances. At the heart of the research endeavor is the assumption that we each possess a capacity to process and store for later use salient aspects of our daily experience and accumulating knowledge about the world in which we live. The aim has been to describe the structure and function of individual cognitive processes that would allow people flexible access to their individual repository of past experience and knowledge. Notable exceptions to such an approach have argued that it is impossible to study individual cognition divorced from any environmental context that constrains and affords the very cognitive structures and processes under investigation, (see Neisser, 1984). The "ecological" argument advocates a thorough analysis of environmental constraints of the physical world in advance of detailed consideration and postulation of complex cognitive models concerning individual "mental architecture." However, in emphasizing the physical constraints of the environment there has been a tendency to ignore the cultural properties of both the physical and the social context of cognitive functioning.

The question then becomes how to take account of the cultural or societal dimensions in any analysis of cognitive functioning. Certainly a change of inferential focus is required that goes beyond situating the study of individual cognition in ecologically more valid contexts. In addition, it needs to be recognized that the cultural aspects of human activity are not just fortuitous extras that socially facilitate the smooth working of individual cognitive processes. Human thinking is both embedded and constituted within socio-cultural activities. This implies a need to change the conceptual basis for investigating psychological functioning from cognition as an individual to a collectively realized activity. Mnemonic activity is a particularly appropriate candidate for analysis from a collective perspective. Although the majority of psychological studies have concentrated on the processes that underpin accurate retrieval of information in both individual and social circumstances there has been little attempt to analyse it as a social process mediated by the products of culture, such as language, artifacts, tools, social customs and institutions.

This study was concerned with looking directly at the content of naturally situated conversational activity as a collective activity that affords the negotiation of a consensus concerning past events of relevance to present and future actions.

Bartlett (1932) realized, as did Maurice Halbwachs (1950), the French sociologist who so eloquently championed the study of memory from a collective perspective, that there is a necessary imprecision, an inexactitude about our individual hold on the past. This is necessary if we are to escape the tyranny of the immediate past in determining our everyday functioning. Psychological functioning must be able to deal with an indeterminate and novel future. Remembering is not an individual indulgence carried out for the sake of reminiscing; it serves our present and future activity. As such past experience must be capable of being flexibly applied to contemporary circumstances. Remembering collectively affords the possibility of identifying flexible solutions to everyday problems.

The argument presented here is that the dancers' conversation was instrumental in their

collective remembering and interpretation of the dance they were practicing. The discussion aimed to illustrate important aspects of collective remembering such that it could be justifiably claimed that the dancers were indeed engaged in a collective, as opposed to an arbitrary individual expression of frustration at their failure to complete the dance. First, because their conversation afforded the coordination of a variety of individual perspectives within an emergent shared understanding of the dance. Second, because the very substance of the discussion was formed in, and bounded by, aspects of the dance that were themselves products of previous collective activity within the culture of the dance. Those aspects acted as "mnemonic resources" that the team members struggled to "take meaning" from, (in Shirley Brice-Heath's [1982] sense), in their collective search for what to do in the dance. The justification for describing them as "mnemonic resources" lay in their potential for bridging past with present performances. As such the use of those resources took the discussion beyond an arbitrary and immediate sociability into a culturally constrained activity. That activity incorporated motives for their performance that went beyond any immediate actions toward their stated goal of getting the dance going again.

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Educational Knowledge and Collective Memory

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Introduction

The role of memory or remembering in school has a long and controversial pedigree. It is associated most strongly with what has become known as the "traditional," or "transmissional" sort of education, in which children were required to rehearse verbatim their multiplication tables, pages of classical poetry, conjugations and declensions, the dates of battles and kings and treaties, mathematical formulae and derivations, the number of pounds in a ton, or yards in a furlong. With the advent of the more "child-centered," "progressive" sorts of pedagogy, the importance of brute memory has been diminished. Children are to be guided along a more personal path of development, and it is as much a process of growth from within as of learning what is given. Knowledge is created, constructed by the learner, not merely passively acquired from textbooks and teacher talk, nor written upon some tabula rasa. But it is not rote learning that concerns us here. We shall argue that the notion of collective

memory, and of collective understandings in general, have much to offer our conception of schooling. Indeed, they are the key to reconciling the active, exploratory conception of learning with the one strength that the older, traditional sort of pedagogy possessed--a recognition of culture, of the pre-existence of knowledge. Children do not just happen to re-invent the knowledge of centuries.

The important thing about educational knowledge is that it is communal, rather than simply personal. It is necessary that children acquire skills, knowledge and understandings that they can communicate and demonstrate when asked to do so. Teaching and learning are communicative transactions between teacher and pupils that take place in the context of lessons, of subjects and of a curriculum, or more generally, of goals set by the teacher, by the educational system, and by the requirements of the world beyond the school. What children know is what they can show they know. And the criteria by which their knowledge is assessed are ones that appeal to a ready-made consensus of what is worth knowing.

Bartlett's (1932) classic studies of remembering involved the use of materials that had a collective, cultural significance. The reconstructive processes of remembering that he demonstrated were not merely properties of the workings of individual minds, but properties of a collective mentality. It was his subjects' membership in a particular culture, with its own significant symbols and unspoken contexts of knowledge and value, that dictated the general patterns of what was memorable, what was forgotten, and the various transformations that took place in what people recalled. These studies have a clear relevance to education, in so far as the acquisition of educational knowledge can be seen as a process of inculcation into culture, involving an active and communicative reconstruction of collective wisdom. There are some important elements in an analysis of educational knowledge that did not figure prominently in Bartlett's work. These include: (1) the developmental perspective, (2) the importance of two-way communication, and (3) the teacher's authority and power. No attempt will be made to deal fully with these things here; a fuller discussion can be found in Edwards and Mercer (1987). Here we shall deal more narrowly with collective reconstructions of classroom knowledge.

Context and Continuity

School lessons take place in real time, and involve an accumulation of shared understandings of what has been done in the classroom, of what is assumed to be known, of what is appropriate, true and worth knowing (cf. Mehan, 1979). All classroom communications take place against a backcloth of shared experience, shared knowledge and assumption, and this includes a collective memory of what has been done and said. Successful pupils come to understand the criteria of what is important, how to distinguish the significant things from the trivial, and how to tell the teacher what she wants to know. Each new communication is predicated upon this accumulating context of common knowledge (Edwards & Mercer, 1986; 1987). Collective remembering, then, whatever its nature and characteristics, is a basic constituent of teaching and learning in the classroom. Examined here are some of its characteristics in some transcribed video-recorded lessons, taken from the larger study of the development of shared knowledge in schools.

First, some brief definitions: The term "context" will be used to refer to everything that the participants in a conversation know and under-

stand over and above that which is explicit in what they say, that contributes to how they make sense of what is said. "Continuity" is the development of such contexts through time. The notion bears comparison to George Herbert Mead's "emergent present," which is usefully summarized by Griffin and Mehan (1981) as follows: "that which is going on in the present inexorably becomes the past, informing and reforming the present, while future events inform the sense of the present" (p. 190).

It is a commonplace observation in studies of language and communication that messages depend for their meanings on the contexts in which they take place. These contexts are of various sorts. A first distinction may be drawn between linguistic and non-linguistic contexts; the linguistic context is the speech or text that precedes and follows any given utterance, while the non-linguistic context includes the time and place, the social occasion, the persons involved, their behaviour and gestures, and so on. Both sorts of context are very relevant to the form or structure of any discourse, and also to its content. Sequence 1 illustrates some important points. (T is the teacher; situations, gestures and props are recorded in the right hand

SEQUENCE 1: Context as shared knowledge.

T: What else could she do?...To make sure she always had it/ you know at the level she wanted?...

David: Put the ruler down here and make/ the height from the ground/ from the table.

T: So where would/ what would she mark then/ to measure the height from the ground?// What could she mark// on the pendulum?

Jonathan: Oh on on here.

T: Right. She could put marks across could't she? And it doesn't matter if there's/ er/ it matters if they're even. Right/ so you could start...

David holds pendulum bob out and points to distance between bob and table.

T pauses, pupils don't respond.

Jonathan points to two places, at different heights his pendulum support.

T points to 3 different heights on the pendulum support.

column. Diagonal slashes represent pauses in speech. Here, a group of 9-year-olds have constructed three wooden "pendulums," and are about to measure variations in their periods of swing. The teacher is asking for suggestions about how to measure different angles from which to start the pendulums swinging).

Sequence 1 is a classroom discourse which is clearly context dependent. It is necessary for us to know about various physical activities, gestures and props in order to make proper sense of the dialogue, and of course the same is true for the participants. There are the usual textual markers of context dependent discourse--pronouns (she, it, you), locatives (up there, down here), ellipsis (incomplete sentences, etc.), the definite article (the), and so on. But two rather less obvious features of this context dependence are equally important. These are (1) the fact that all of the dialogue can be said to be dependent on context for its meaning, and (2) the fact that the context is not physical but mental. These will be explored in turn.

The dependence of all of the dialogue on a current, previously established, or implicit context is seen clearly as we examine particular words. "Pendulum," for example, has a general, abstracted definition such as this one from the Oxford English dictionary--"suspended body swinging to and fro by force of gravity..." In Sequence 1 it also has a much more specific meaning--i.e., its situational reference to the particular wooden structure that the pupils have in front of them. Similarly, the words "height," "ground," "table," "mark" (and so on) all have particular situated referents. In addition, these particular meanings are ones that the participants in the dialogue understand jointly. Each person has to understand what the other means. For example, David first uses the word "ground," then adjusts this to "table," this being effectively the ground on which the pendulum stands, rather than, say, the floor of the classroom. His gestures make clear what he means. The teacher then uses the word "ground," relying on the fact that David had already made clear what it refers to. Another example is the teacher's use of the word "even," near the end of the extract. It seems to mean something close to "equidistant," since she points simultaneously to three points a certain distance

apart on the wooden structure, and makes it a major theme of the lesson that scientific measurements have to be accurate and consistent in scale. In order for teacher and pupils to understand each other and develop a shared conception of the work they are doing on pendulums, it is crucially important that they are able to relate discourse to context, and build through time a joint frame of reference.

The notion that context is not physical but mental is an essential part of the link between discourse and knowledge. We normally think of the "context" of an utterance as something concrete and determinable--the surrounding talk or text, the surrounding actions, gestures and situation. But this is an outsider's view. For the participants, the context of any utterance is more a matter of perception and memory--what they think has been said, what they think was meant, what they perceive to be relevant. For example, as I write these words, I am seated at a word-processing microcomputer, surrounded by books and papers, a desk, walls painted a particular colour, and so on. It is a university academic's office. You the reader will be situated in a physical context also, maybe even a similar one to mine. The point is that none of this was contextual to what I am writing until the point at which I mentioned it. The physical circumstances of any act of communication, whether spoken or written, could support an infinity of detailed descriptions. What matters is what the participants in the communication understand and see as relevant. Even the surrounding discourse itself is contextual only in so far as it is remembered or understood, whether accurately or not.

All of the dialogue proceeds against this sort of cumulative shared mental context. The implications for our understanding of "education" are profound. We can say that the process of education, in so far as it succeeds, is largely the establishment of these shared mental "contexts," joint understandings between teacher and children, which enable them to engage together in educational discourse. Teachers' words serve to highlight the significant aspects of the lesson's activity. They encapsulate what it was about their various actions that the pupils ought to be noticing and remembering, what finite meaning should be placed upon them. They provide for the

group a common vocabulary for those actions that they all would need in order to communicate these joint understandings to each other. This notion of acquiring a shared conceptual vocabulary was clearly an important implicit aim shared by the various teachers that we studied. What begins as a physical context of joint activity and dialogue later comes to serve as a shared mental context of experience and understanding. Having gone through a demonstration or explanation together, having established how to talk about it, teacher and pupils could begin to exchange understandings with words alone. The joint activity and discourse of the past became a shared mental context for the present.

Recaps and Reconstructions

Our recordings of lessons were made in sequences of three in order to gain some information about how collective knowledge was built from lesson to lesson, as well as within lessons. The

time when the continuity of common knowledge was made most explicit was at the beginnings of lessons. Sequence 2 is the opening talk from the first two lessons on computer graphics. The teacher began Lesson 1 by introducing the pupils to their new computer, and immediately established a context for it in terms of their previous experience with computers in the classroom. Lesson 2, recorded a week later, began with a back reference to where the previous computer lesson had left off, the pupils having been required in the meantime to work out how to instruct the computer to draw non-rectangular shapes. The lessons typically began in this manner, with introductions to the work to be done, and continuity links established with what had been done previously. Similarly, the third of the lessons on pendulums began with the teacher directly asking the pupils to recall the discourse of the previous lessons: "Right. Now then./ Do you remember the work we've been doing/ on pendulums?/ You remember we talked about the parts of a pendulum. What do we call/ the weight on the end..."

SEQUENCE 2: Introducing the lesson

T: Right/ this is our new computer/ the four eighty zed. You haven't seen this one before. Erm when you've used computer programs before/ what's happened is that the words have come up on the screen/ or the instructions/ for you/ have come up on the screen/ and you've just answered the questions/and typed in/ what the/ computer wanted you to do. This program is different. In this program the computer doesn't know what to do. You've got to tell it what to do/ so you have got to instruct the computer.

(An RM 480Z microcomputer)
Teacher gestures with arm towards screen.

Lesson 2

T: Now you've got your programs from last week have you/ to show me what you're

T reminding pupils of instructions she gave last week.

Pupils: Yes.

T: (continuing) going to do/ with angles not ninety degrees./ We had to try something else didn't we. What did you find most difficult Susan? What's yours?

Besides these opening links, explicit references were also made during the lessons to what had been done and said earlier. Sequence 3 lists the teacher's back references from the last of three lessons on making clay pottery. (This is a different teacher, pupils and school).

SEQUENCE 3: Back references to shared experience and talk

What did I tell you about thin bits? What happens when they dry?

What did I tell you about eyes?

Can you remember what you forgot to do Patricia/ when you put that little belt thing round?

Look when you put its eyes in./ I did tell you this before Lorraine.

John/ you seem to have forgotten everything you've learned don't you?

Don't forget/ if it's too wide chop it off.

As the teacher's remarks to John and to Lorraine imply, the continuity of collective knowledge was not something that developed unproblematically. Indeed, all of the cases listed in Sequence 3 occurred in the context of some difficulty arising with regard to the understanding that teacher and pupils had established up to that point in the lesson. Explicit back references to shared knowledge were generally made by the teacher at moments when the very status of the commonality of that knowledge was in doubt. The teacher made these sorts of metacognitive and metadiscursive comments at moments when the pupils seemed not to have grasped some significant principle, procedure or instruction that had been dealt with previously.

This appears to be a general feature, one that we have found in other contexts such as adult conversation (Edwards & Middleton, 1986a) and parent-child conversation during early language learning (Edwards & Goodwin, 1986). People who are engaged in working out a common understanding of events, or a common language for describing their experience, tend to resort to direct talk about

the mental processes involved, and about the conversation itself, at precisely those points where there appear to be disagreements, mismatches or incongruities in the different participants' understandings. In the asymmetry of teacher-pupil and parent-child conversations, these mismatches are an important part of the learning process. As transactions between child and adult, they occur in Vygotsky's "zone of proximal development," at precisely the points at which common knowledge is being created. And it is the adult who takes the leading role in drawing attention to them, talking about them, establishing knowledge which is both common and communicable. We can see the process clearly in Sequence 4 (opposite page).

Sequence 4 is taken from pottery Lesson 2. The teacher, having noticed that Katie was having difficulty with her model, intervened and appealed explicitly to a continuity of shared experience: "What have you been doing all along?" The exchange succeeded in focussing Katie's awareness onto what the teacher perceived to be the salient part of her actions, this then becoming the necessary shared mental context for the teacher's explanation of why those actions were important--"You must do it/ otherwise it will dry." Explanation was built therefore upon a shared understanding, communicated in the discourse, of the nature and significance of selected aspects of joint experience and activity.

So, the function of these explicit recaps was to ensure that the pupils had developed a joint understanding with the teacher of the significant aspects of what had already been said and done, and how to conceptualize and describe them. The establishment of these shared understandings could then become the basis of further teaching, serving as shared mental contexts for what was to follow. Sequence 5 (opposite page), from computer graphics Lesson 2, is a clear example of this.

The teacher's explicit recap in Sequence 5 has a very clear Janus-like quality. It faces both ways: backwards in encapsulating a conceptualization of significant joint experience and activity in a common language: forwards in creating the shared mental context that served as a framework for understanding the new activity and teaching which was to follow--i.e., how to tell the computer to move the cursor with or without drawing a line on

SEQUENCE 4: Continuity: What have you been doing all along?

T: Now/ how are you fixing them on Katie?

Katie: Putting them/ well it's (...)

Katie mutters hesitantly.

T: Now/ what do you think you should do what have you been doing all along every time you've joined anything?

Katie: Putting grooves in it.

T: Putting grooves in it/ haven't you and water/ grooves and water/ the water to fill up the grooves/ on both bits of clay./ You must do it/ otherwise it will dry/ and when it's dry like those are dry/ those ears will just be lying on the floor/ or on the table. Take them off/ otherwise you'll be very sad./ You've got to do things the right way round with clay or they just don't work.

Katie refits the ears.

SEQUENCE: 5

T: just to recap on that/ whatever you draw/ and that's why we use the square paper/ whatever you draw/ you've got to measure exactly/ the lengths and the turns/ in order to convert it to the language of the computer./ OK/ so/ and the main difficulty there's the angles/ the actual angle we want to turn. You've seen that all for yourselves haven't you? Now/ everything we've done so far/ has been with the arrow on the screen all the time/ like the pen being on the paper all the time. Now/ we know that we don't write and draw with the pen on the paper all the time/ so this machine has got a command/ pen off ...

T points to computer.

T demonstrates by turning top half of her body to one side.

T points to screen, then mimes drawing on paper with pen.

T gestures lifting pen off paper.

the screen as it moved. Sequence 5 is a particularly overt expression of the nature of context and continuity.

It should not be thought that the establishment of collective classroom memories was a

process dominated merely by communicative necessity, nor the pursuit of an accurate record of events. It was also an arena in which what may actually have happened could be creatively re-interpreted in the light of what ought to have happened, a process guided in turn by the teacher's

SEQUENCE 6: Recapping the main empirical findings

T: Jonathan/ you and Lucy.

Jonathan: Well we tried different weights/ on the end of the*/ on the end of the pen thing whatever you call it. *Pauses, points to pendulum.

T: And how did you change the weight? What did you use?

Jonathan: Erm/ washers. Points with pencil at pendulum off screen right.

T: That's right yes.

Jonathan: And did them at the same height each time/ and then/ they all came out/ the same.

T: Which surprised you didn't it?

Jonathan: Yeh. Jonathan nods.

SEQUENCE 7: Reconstructing a principle of equal intervals

T: Right we started off at/ what was this one? T indicates leftmost position on x-axis of graph displayed on OHP.

Sharon: Forty degrees.

T: Forty? T pointing to next position (55 degrees).

Sharon: Fifty five degrees.

T: Yes. T pointing to 70 degrees, then to 85 degrees marks on x-axis of graph.

Sharon: Seventy degrees and eighty five degrees.

T: Yes/ erm/ did you follow any particular pattern? Is there any reason why you chose those angles or did you just sort of chalk/

Sharon: Fifteen degrees difference.

T: Good girl. Fifteen degrees difference between the two. That's valuable when you're doing an experiment/ to try and establish some sort of a pattern/ in the numbers/ or the erm timing or/ whatever it is that you're using. Try and keep the pattern the same/ the interval* the same/ for example between the degrees. T looking around group, using upturned hand with finger tips joined. (Precision gesture). *T holds palms of hand a fixed interval apart and moves them sideways through the air.

privileged position as one who knew in advance what truths were there to be discovered. The teachers we studied made use of a variety of powerful discursive devices through which, despite an overtly child-oriented, invitational and eliciting style of talking to pupils, a tight reign could be kept upon what was collectively done, thought and understood. These devices ranged from the overtly obvious (such as controlling pupils' contributions, sanctioning who should speak, when, and about what, ignoring unwelcome contributions and selectively encouraging others, etc.), to the very subtle (such as introducing understandings or versions of events via presupposition and implication, effectively defining them as "given," to be taken as understood, as not open to question).

Another device was that of "reconstructive paraphrasing," in which the teacher would repeat or summarize what a pupil had just said, but altering it in some subtle way such that it was re-cast in a more acceptable form, more explicit perhaps, or simply couched in a preferred terminology. But the most extensive reconstructions were those that occurred typically at the beginnings and ends of lessons, when teacher and pupils were establishing what was to count as common knowledge, how the context of shared experience, upon which subsequent teaching and learning would proceed, should be defined. Sequence 6 (opposite page) occurred during the second of the pendulum lessons, when the teacher was recapping (via the familiar sorts of IRF elicitations--see Sinclair & Coulthard, 1975; Mehan, 1979) on the material covered in Lesson 1. Both teacher and pupils took advantage of the opportunity to offer a more acceptable version of events. Contextual to Sequence 6, each pair of pupils was in the process of recalling in turn their main empirical findings. Here we have Jonathan's version.

Jonathan and his partner Lucy had been assigned the task of varying the pendulum bob's weight, and measuring the effect this had on its period of swing (i.e., the time taken to swing to and fro). This variation of weight should have no effect on period of swing, and after some negotiation with the teacher in Lesson 1, this was agreed to be the finding. The most notable reconstruction in Sequence 6 is Jonathan's declaration that he and his partner had varied weight alone, that they changed the number of washers "and did them at

the same height (i.e., angle) each time." In fact, Jonathan and Lucy actually altered angle as well as weight, a fact that the teacher at that time chose consistently to ignore, and it was never established whether or not they had used the proper controls when altering the two variables. By the time we came to Lesson 2, the importance of altering variables one at a time had been grasped, and pupils and teacher were prepared to collude in a blatant revision of what had actually occurred. Similarly, Jonathan's confirmatory response to the suggestion that the results surprised him was a direct contradiction of his declaration in Lesson 1 that the results were just as he had predicted. Indeed, he goes on in Lesson 2, shortly after this sequence, to articulate the reconstructed hypothesis: "I thought it might go faster because it has a different weight." Whatever the truth of the matter, the experimental findings have now become jointly understood as results that disconfirmed a hypothesis. Perhaps Jonathan was originally unwilling to admit to what may have seemed at the time an error of judgment, that he had made a false prediction. In any event, by Lesson 2 he has chosen to confirm the teacher's prompted question ("which surprised you didn't it?"), that the results were unexpected. Certainly, it is far more acceptable to have one's hypothesis scientifically disconfirmed than simply to have made an error of judgment.

Another notable piece of reconstructive recapping occurred in Lesson 2 when teacher and pupils were recalling the experiment done by Sharon and Karen, that varied angle of swing. It would appear from Sequence 7 (opposite page) that Sharon and Karen chose angles that were equal distances apart, 15 degrees, as a matter of proper scientific procedure. But as Sequence 8 (next page, from Lesson 1) demonstrates quite clearly, the four angles were first marked without measurement on the top of the pendulum, and then, only after the experiment was completed, were they estimated, under the teacher's guidance, to be equidistant at intervals of 15 degrees. Sharon and Karen had in fact determined their various angles of swing earlier in the lesson by uncalibrated trial and error, constrained not by any principle of scientific measurement, but by the angles at which the string was found to snag on the pendulum upright.

SEQUENCE 8: How the equal intervals were measured

Sharon: We're stuck.	
T: You're stuck Sharon?	T gets up and moves round table to Sharon and Karen.
Sharon: We're going to find (...)	
T: What love?	T moving into position in front of Sharon and Karen's pendulum.
Sharon: I'm going to find the angles/ and/	
T: The angles that you've used	
Karen: We can't get the protractor on there.	Karen pointing to top plate of pendulum where lines are marked at different angles.
T: Well what I always do in cases like that I usually guess.	Sharon turns away laughing.
Karen: I know that that one's roughly ninety degrees.	Karen pointing to the uppermost line.
T: What one would that one be Karen?	
Karen: That's roughly ninety degrees.	Karen still pointing.
T: Roughly/ is it quite ninety or would it be more/ less?	
Karen: Not quite/ just less I think.	
T: So what then?	
Karen: Just/	
Sharon: Eighty five?	Sharon to Karen.
Karen: Yeh.	
T: Come on then/ eighty five/ Now what about this one at the bottom then? That's ninety.	Sharon, T and Karen bend forward, watching as Sharon writes on her notepad. T points in turn to bottom of line and then to top (90 degrees) line.
Karen: That one's ninety. That one's roughly forty five.	Karen points appropriately to top and bottom lines in turn.
T: More or less than forty five?	
Karen: Less.	
T: Less than forty five so/	
Karen: Forty.	
T: Forty.// And what about th ones in between?	Rising intonation; all bend forward and watch again as Sharon writes on the pad. T and Karen look up at top plate.
Karen: Well/ that's going to be/	Karen points to third line down.
Sharon: That one will be seventy then//	Sharon points up towards second line down then writes on pad.
Karen: So that one must be about//	T walks over to Antony and David as Karen and Sharon work out the remaining angle, between 70 and 40.
Sharon: Thirty.	(Note that 30 and 35 are both less than 40 degrees; these impossible estimates were later surreptitiously replaced by the figure 55)
Karen: Thirty five?	

The notion that four equidistant intervals were used to measure angles of swing was constructed during the first lesson out of a mixture of the casual positioning of marks on the pendulum and prompting by the teacher, and was later reconstructed in the discourse of Lesson 2 as a scientific principle constraining the proper conduct of experiments. The way in which the intervals were actually arrived at was never articulated. We are forced to the conclusion that it would clearly be inadvisable to place too much emphasis on the importance of what pupils learn simply from their own activity and experience, even when working with practical equipment, making empirical observations. What really matters is the interpretation put upon that experience, the words which define and communicate it, the principles encapsulated in the words, and the re-working of events that those words carry. And it is largely the teacher who provides those words while eliminating others from the common vocabulary, governing the discursive process in which particular descriptions and versions of events are established as the basis of joint understanding.

Conclusion

The notion of memory or remembering as the rote learning of materials has little relevance to modern educational practice. But the notion of a developing consensus of shared knowledge is much more interesting. The idea that education involves the workings of collective memory has two complementary foundations. One is that educational knowledge has the properties of a ready-made culture that precedes the coming together of teacher and pupils. The other is the process of collective remembering, the building of a context and continuity of shared knowledge as the activity and discourse of each lesson proceed. In developing a shared vocabulary for experience and understanding, and a jointly held version of events in the classroom, teacher and pupils construct a framework of educational knowledge which reflects both sides of the process, i.e., pupils' experiences in the classroom, and the principles and categories of understanding that the curriculum, or the teacher's preconceptions, have set as the agenda to be learned.

But the process of construction is not one that occurs between equal partners. The teacher, in

the observations we have made (cf. A.D. Edwards & Furlong, 1978), remains in control, the authoritative representative of the ready-made culture, the one who knows in advance what ought to be discovered, how it should be known, what it should be called. It is not that teaching has to be authoritarian. It is merely that looking at education in terms of collective remembering forces us to recognize the importance of culture as being, as far as school children are concerned, largely ready-made, as is the natural language they will already have learned. And as with natural language, the expertise that children need to acquire is one of competence and creativity, of having acquired the system and its rules of operation, and of being able to move freely within it. In the older, traditional pedagogy, children could pass muster having learned the trappings of educated thought parrot-fashion. But that is not how we know language, and it is equally unsuitable as an understanding of education. But also inadequate is the more modern notion of education as elicitation. Children cannot have this cultural knowledge elicited from them any more than they can have it simply transmitted to them. The teacher's role is that of a guide, a guide with a map, liaising between the child and the collective wisdom of the educated world.

Note

The work described here is part of a larger project funded by the Economic and Social Research Council, Great Britain, which investigated the nature and development of shared understandings in school classrooms. The work was done jointly by Derek Edwards, Neil Mercer and Janet Maybin. A fuller account of it is provided in Edwards and Mercer, 1987.

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Commemoration: Making Family History as a Family Event¹

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My contribution to the Collective Memory Colloquium was a video tape on which I had combined images shot on super-8 film with the tape-recorded reactions of my family to that footage. The film images were shot at irregular intervals between the day my older sister gave birth to my niece and my niece's second birthday. All of the characters in the film were also present in the audience except for my grandmother whose 100th birthday party is included in the film. Shortly after New Year's in 1986, I screened a rough assembly of this material for my parents, my two sisters, their significant others, one of my two brothers, and my niece herself, and recorded their verbal reactions. My motive in making this tape recording was to give an interactive dimension to whatever document my material ultimately became. I wanted to offset as much as possible my privileged, not to mention voyeuristic, position as filmmaker by letting the film's subjects talk back to it. Recalling that audiences customarily talked

during movies in the silent film era, I hoped to encourage that active, collective dimension of film viewing on this occasion.

When I first began filming, I had a somewhat different project in mind. I wanted to make a feminist film that addressed some of the problems and contradictions faced by an independent working woman. I wanted this film to depart stylistically from the usual gloom and doom of socially critical documentary. I was especially troubled by the way certain feminist films I had seen, through their dreary tone and grainy visuals, seemed to suggest that women could expect little pleasure from their experiences until and unless the world changed completely. Only then could they expect emotional or social fulfillment. My sister offered me a fascinating counter-example. Rebellious against social roles and expectations, she was otherwise fun-loving, generous, and brimming with energy. If she was not always a conscious feminist, she nevertheless acted like one. She became the first woman engineer in west coast network news, and until four months into her pregnancy, she was frequently on the road as the sound "man" in a two-person ABC minicam crew. She was not married when she decided to get pregnant. Having been married twice before, she was not sure that marriage as an institution was good for her. Friends and family, myself included, were intensely curious to see what she would make of motherhood and what motherhood would make of her. I had a feeling that the outcome would be colorful and dramatic.

My hunch was right. In my shooting I try to convey the creativity, colorfulness, and warmth with which she continues to lead her life. At the same time I try not to understate the immense difficulties that the lack of family support services and the rigidity of worklife in our society have put in her way. My sister has even less time than most parents of infants to appreciate her daily victories over impossible logistical and economic challenges. Recurring crises have not succeeded in altering her priorities, or her unfailing enthusiasm, but they have taken their toll on her self-image and on her sense of professional direction.

During the screening, she was surprised at the purposefulness and energy of her movements in a sequence where she is scrubbing down and

painting the walls of the new, smaller apartment she had to move into because she was earning less money and having to pay much of it for child care. (She thought for a moment that I had shot the film in fast motion.) Several times she mistook her own image for that of our younger sister, apparently unaware of how well she looked during that difficult time. Perhaps the most curious remark on my tape recording of that first screening is her enthusiastic proposal that we *start* making a film or video chronicle of the family. My voice on the tape points out that this is what we *have* been doing. One simple explanation for this odd slip is that in her current job doing character generator programming, the images she sees on screen are being broadcast live. Her desire to have our images of the family preserved may have indicated no more than that she was assimilating them to those live images.

But it is tempting to speculate further. I shot and edited the film more like a documentary than like a home movie. I tried to elaborate each occasion so that even someone not there at the time could get some feel for it. Apparently the strategy was effective. At one point, as my brother and I are driving to my grandmother's 100th birthday in the film, my niece, as spectator, asks, "Where are we going?" When it is explained to her that she was not along on this expedition, she responds suspiciously, "Is this a movie?" I think that my sister, too, was momentarily seduced. She liked what she saw, even though it didn't correspond to what she remembered, and her instinct was to preserve this "reality," too. In other words, the film itself operated at times, for one or another spectator, like a primary reality, not like a reproduction or record of what we all, or any one of us, remembered.

The tendency of this film, and perhaps a certain kind of "realistic" film in general, to usurp, or at least to add onto, the past, is, I think, the issue here. In the family context this tendency can work advantageously. The film obviously offset geographical distances among us, allowing family members unable to be present at certain events to form a fairly vivid visual "memory" of them. And it offset our temperamental, generational, and political differences in interesting ways. Each of us was allowed to be a *spectator* of the events it depicted, freed from our usual roles and

responsibilities as participants in the family drama. As I compared this experience to the instances of collective memory described by Dave Middleton, I began to see a parallel. As in the disarray of the Morris dance, no one person at the film screening was master of the event. Each participant's partial knowledge or spontaneous reaction was equally pertinent. In other words, a space for improvisation was opened up, the same sort of space opened up by crisis in Middleton's examples. This improvisation, in both cases, led to the creation of virtually new meanings or "memories" which may actually take the place of, or at least be added onto, other, older patterns, practices, and memories. The danger, obviously, is that this medium of collective memory could so easily be abused, as many critics of Hollywood movies claim it already has been in its industrially-produced, mass oriented incarnation.

Note

¹The Latin root of this term is COMmeorare: bring to remembrance. The prefix COM means: with; together; altogether. Thus the term commemoration implies the preservation in memory by some collective celebration. It implicitly marks remembrance as a social activity.

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There is neither a first word nor a last word. The contexts of dialogue are without limit. They extend into the deepest past and the most distant future. Even meanings born in dialogues of the remotest past will never be fully grasped once and for all, they will always be renewed in later dialogue. At any moment of the dialogue there are great masses of forgotten meanings, but these will be recalled again at a given moment in the dialogue's later course when it will be given new life. For nothing is absolutely dead: every meaning will someday have its homecoming festival.

Mikhail Bakhtin, 1979

Collecting Children's Comments on Computers

For several years, **Stephen Diaz** has been working with the elementary school age children whom we quote below. The children share with Diaz and each other ties to barrios in the United States and to Mexico. They also share Diaz' commitment to the notion that allegiance to values and patterns (including the Spanish language) of their homes and the barrio can be coherent with the acquisition of power over new technologies and with the achievement of excellence in academic domains. They all meet together twice a week, after school, in a group called "The Lowell Computer Experts." Over the years, others from LCHC (notably Luis Moll, Alonzo B. Anderson, Peg Griffin, Mike Cole) have cooperated in varying ways with this work.

This year, **Moni Hamolsky**, a visiting researcher at LCHC, organized a group of UCSD undergraduates (Adrienne Lane, Hinda Levin, Anna Nizinski, Jamie Oliff, Eltonia Thomas, Patricia Uvero, and Scott Woodbridge) to capture in notes some of what the children said about computers as they went about their work and play in the course of a month.

Here we provide a small and biased sample: It is only in English, because, unlike Diaz and the children, so many of the undergraduates and the rest of us have little competency in Spanish, so the children code switch to English around us. Analysis of the full corpus is in progress. Meanwhile, here are some of our favorites with more bias shown in the groupings and labelings:

About People Using Computers:

It's better when two people play so they can share the things they know. (Marta)

Not just boys can play games. Anyone can play them. (Elena)

It's more fun with three people. (Christina)

Computers can help you communicate. (Edgar)

Telecommunications let you talk to people far away. (Jose)

Computers can store information. (Jaime)

Computers can help with math but you have to know how to use them. (Jose)

A computer knows what to do when you type in what you want. (Refugio)

Other computers are machine games, ready tellers, typewriters, calculators and ticket machines. (Elena)

You can use the computer in games, telecommunication, letter writing and math. (Jose)

Boys are boring to play with. They don't pay attention; they look out the window. Or, they do the whole thing, hog it. (Marta)

You can design pictures with computers. (Elena)

About Computers and Literacy:

I use the same hand to type that I use when I write on paper. (Marta)

I write down information so I know where to go. (Elena)

It was my idea to write down the keys so I could remember. (Edgar)

A way to remember where all the pictures are in Picadilly is to write it down. (Manuel)

The good games have instructions. The other ones just say do Control G. (Marta)

To be good at Defenders, use your brains. The chart tells you where the guys are. Use the chart. (Francisco)

Some kids follow the instructions with their fingers. (Jose)

I like filling out papers like the Software Review about the game. You get to say everything you know. (Marta)

There are books about computers and we learn about how we can learn the computers. (Christina)

About Achievement, Learning and Games:

You get tired of games when you always do the same thing over and over. (Refugio)

The first time you play a game it's better and harder. The other times it's easier and not so good. (Marta)

It's most fun to play if you've never played before; you always get better! (Refugio)

It doesn't matter about scores; nobody cares. (Refugio)

When you first start to play a game, like for the first time, you just play for the heck of it. Later you think about it. (Refugio)

Learning games are harder than the other ones, but they are easier to play after you've done the game a few times. You know the clues. (Jaime)

Math has patterns, too, like games. Patterns mean smart strategies. (Jaime)

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