Memory Distortion in Group Recall

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Earlier we reported (Basden, Basden, Bryner, & Thomas, 1997) that, in comparison with nominal groups (three people tested individually), three-person collaborative groups recalled fewer presented words but intruded more nonpresented words. In the present research, Experiment 1 showed that when presented words were associatively related to critical nonpresented words, collaboration inhibited recall of presented words but did not influence recall of critical nonpresented words. Experiment 2 showed that with categorized lists, recall of high taxonomic frequency critical nonpresented words was greater for collaborative groups than for nominal groups. Collaboration did not inhibit recall of presented words, presumably because guessing supplemented recall in collaborative groups. Greater false recall in collaborative than in nominal groups appears to result from activation of superordinate-to-item associations rather than item-to-item associations.

MEMORY DISTORTION IN GROUP RECALL

In reviewing previous research, our concern was with the effect of the collaborative efforts of several individuals on the overall accuracy of their recall. Perhaps the earliest research reporting that group remembering introduces memory distortions came in the form of Bartlett’s (1932) classic descriptions of reconstructions in recall. Bartlett suggested that memory changes occurred in conjunction with the development of schemas, socially influenced representations of the gist of the passage. He used the Method of Serial Reproduction, in which one individual first reads a prose passage such as the North American folktale “The War of the Ghosts,” and then relates it from memory to a second individual, who in turn relates it to a third individual, and so on. Bartlett did not compare distortions by individuals repeatedly recalling alone (The Method of Repeated Reproduction) with those by individuals who related the passage to others in a group (The Method of Serial Reproduction). However, he did report dramatic changes in content with both methods. Thus, Bartlett’s studies, as well as Allport and Postman’s (1945) studies of rumor transmission in groups, indicate that collective recall may reduce accuracy.

Perlmutter (1953) extended Bartlett’s (1932) research by testing the recall of collaborating two- and three-person groups twenty-four hours after they had recalled “War of the Ghosts” as individuals. Perlmutter reported that individuals tended to reproduce the same errors they had introduced earlier, and that these errors cumulated across the group to make the product of collaborative recall less accurate than that of individual recall. Similar findings were reported by Perlmutter and de Montmollin.
Stephenson, Brandstatter, & Wagner (1983) compared initial trial recall of “War of the Ghosts” by individuals and two-person groups. They concluded that two-person groups showed more reconstructive errors and were more confident of those errors than individuals. In contrast, Yuker (1955) reported that group recall was more accurate than individual recall because it included a larger proportion of the original information. In other words, a collaborative group reproduces more of the original information than does an individual, but introduces more false information in the process. Alper, Buckhout, Chern, Harwood, and Slomovits (1976, p. 149) concluded that “… group interactions may pressure [members] into offering inferences rather than perceptions or even into offering outright fabrications.”

The alternative position is that groups are better able to reject errors than are individuals. That position was initially advocated by Shaw (1932) for problem solving tasks. The majority of investigators studying accuracy of memory in groups (Hartwick, Sheppard, & Davis, 1982; Clark, Stephenson, & Kniveton, 1990; Hinsz, 1990; Stephenson, Clark, & Wade, 1986; Vollrath, Sheppard, Hinsz, & Davis, 1989; Warnick & Sanders, 1980) agreed with Shaw’s position. However, even within studies advocating error rejection in groups, exceptions can be found. Vollrath et al. concluded that groups are generally more effective in eliminating errors of omission than errors of commission (intrusions or reconstructions). Both Hartwick et al. and Hinsz reported more false alarms on recognition tests by groups than by individuals, and Stephenson et al. (1986) reported that groups were overconfident of wrong answers. Hollin and Clifford (1983) found that group members are influenced by others’ recall with difficult items more susceptible to group influence than easy items. Similarly, Clark et al. concluded that once group recall is exhausted, members may contribute idiosyncratic items not contributed during individual recall.

In summary, early research on collaborative remembering permits only the rather weak conclusion that social remembering might increase reconstructive errors. The problem common to all the studies reviewed above is that the conclusion that groups commit more (or fewer) errors was based on comparisons between group and individual performance. In order to determine the effect of collaboration, the methodologically proper comparison is between total errors committed by a collaborating group and total nonredundant errors committed by an equal number of noninteracting individuals, i.e., a nominal group. A second problem is that scoring of errors is difficult with complex materials such as videos or prose passages. In the present research, accuracy of collaborative and nominal groups was measured by the number of intrusions in the free recall of word lists.

**Comparisons of Collaborative and Nominal Groups**

Weldon and Bellinger (1997) compared overall productivity of collaborative and nominal groups. Participants studied a mixed list of pictures and words (Experiment 1) and “War of the Ghosts” (Experiment 2) in three-person groups. Although collaborative groups consistently recalled more than individuals, collaborative groups recalled less than nominal groups. Weldon and Bellinger referred to this phenomenon as col-