

Cross-cultural studies of memory

In developmental psychology, one issue is the development of cognitive abilities such as memory. Most research has been done in the Western world, and an important Swiss psychologist Jean Piaget claimed that cognitive development followed universal laws. It has been assumed that memory tests could therefore be applied all over the world, and it was often found that participants in non-Western countries did poorly on many tests. However, in recent time cross-cultural studies of memories question the results of Western memory tests in non-Western settings. For example, Cole and Scribner (1974) studied the development of memory among tribal people in rural Liberia. To overcome the barriers of language and culture, these researchers observed everyday cognitive activities before conducting their experiments and worked closely with the college-educated local people who acted as experimenters. Even with these precautions, they found striking cultural differences in the way tribal people went about remembering and solving the problems presented by their experimental tasks.

The nature of these cultural differences can be seen in studies of the development of free-recall memory. In a free-recall task people are shown a large number of objects, one at a time, and then asked to remember them. This kind of memory is called “free” recall because people are free to recall the items in any order they wish.

Below is a list of objects used in several of Cole’s studies. The list shows that the objects appear to fall into four distinct categories. To make certain that American categories were not simply being imposed on Liberian reality, the researchers made preliminary investigations to ensure that Liberian participants were familiar with the items used and that they readily separated these items into the four groups indicated in the list.

plate	cutlass	<div>The word list used in research a number of times by Cole and his colleagues</div>
calabash	hoe	
pot	knife	
pan	file	
cup	hammer	
potato	trousers	
onion	singlet	
banana	head tie	
orange	shirt	
coconut	hat	

The researchers found that unlike children in industrial societies, Liberian children showed no regular increase in memory performance during middle childhood- unless they had attended school for several years. The nonschooled people improved their performance on these tasks very little after the age of 9 or 10. These participants remembered approximatively ten items on the first trial, and managed to recall only two more items after 15 practice trials. The Liberian children who were attending school, by contrast, learned the materials rapidly, much the way schoolchildren of the same age did in the United States.

Important clues to the causes of these differences were revealed by detailed analyses of the order in which the words were recalled. Schoolchildren in Liberia and the United States not only learned the list rapidly but used the categorical similarities of items in the list to aid their recall. After the first trial they clustered their responses, recalling for example items of clothing, then items of food, and so on. The nonschooled Liberian participants did very little such clustering, indicating that they were not using the categorical structure of the list to help them remember.

To track down the source of this difference, the researchers varied aspects of the task. They found that if, instead of a list of objects presented in random order, the same objects were presented in a meaningful way as part of a story, their nonschooled Liberian participants recalled them easily, clustering the objects according to the roles they played in the story.

Similar results have been found on tests of children's memorisation skills in research among Mayan people of rural Guatemala. When Mayan children were presented with a free-recall task, their performance lagged considerably behind those of age mates in the United States (Kagan et al. 1979). Their performance changed dramatically, however, when Rogoff and Waddel (1982) gave them a memory task that was meaningful in local terms. The researchers constructed a diorama of a Mayan village located near a mountain and a lake, similar to the locale in which the children lived. Each child watched as a local experimenter selected 20 miniature objects from a set of 80 and placed them in the diorama. The objects included cars, animals, people, and furniture- just the kind of things that would be found in a real town. Then the 20 objects were returned to the group of 60 others remaining on the table. After a few minutes, the children were asked to reconstruct the full scene they had been shown. Under these conditions, the memory performance of the Mayan children was slightly superior to that of their United States counterparts.

The implication of these memory studies is that although the ability to remember is a universal intellectual requirement, specific forms of remembering are not universal, and the problem with many memory studies is that they are usually associated with formal schooling.

Schooling presents children with specialised information-processing tasks, such as committing large amounts of information to memory in a short time, learning to manipulate abstract symbols in one's head and on paper, using logic to conduct experiments, and many more tasks that have few if any analogies in societies without formal schooling. The free-recall task that Cole and his colleagues originally used to assess memory among Liberian tribal people has no precise analogy in traditional Liberian cultures, so it is not surprising that the corresponding way of remembering would not be acquired. The same conclusion applies to a vast majority of tasks psychologists use to investigate various mental processes during childhood and in adulthood, because many of them embody forms of activity that are specific to certain kinds of settings, especially schools and the modern technological workplace-settings that only some cultures provide.

Based on Cole and Cole (1993) The development of Children. 2nd edition. Scientific American Books.

Questions

1. How does culture affect memory? Use the examples here and show it.
2. What has been the problem in cross-cultural memory research, and what have the implications been?
3. Give some arguments for why it is not advisable to assume that memory strategies are universal and support it with evidence.
4. If you were to test memory in another culture, how would you proceed?
5. What can be learned from these studies on memory on general problems in psychological research?