same situation. When the instructional situation differed from the testing situation, recall suffered. More recent studies on the effects of drugs have suggested that these recall differences can be explained in terms of the subjects' state of mind during learning and testing. Information learned in a particular state of mind (e.g., free from the influence of alcohol or other drugs) will be remembered best in the same state of mind (Goodwin et al., 1969).

Bower (1981) has demonstrated a similar phenomenon with moods. Words learned under a happy mood were better recalled under a happy mood than a sad mood, and words learned under a sad mood were best recalled in that state. Bower argued that emotions, just like information, are coded in memory. And indeed it seems likely that chemical changes in the brain induced by drugs, strong emotions, and learning may all be similarly explained.

Forgetting

At some point, all theories of memory must address the phenomenon of forgetting. We all forget things, but we may do so for many different possible reasons. The most common explanations for forgetting are failure to encode, failure to retrieve, and interference.

Failure to encode simply means that *the information sought during retrieval was never learned in the first place.* Learners often have the illusion of knowing. Poor readers, for example, typically do not monitor their reading very well and so believe they have read and understood something when they have not done so. Learners with ineffective study strategies face the same problem. They tend to equate effort with learning rather than monitor the actual effects of their learning strategies. A student in one of my classes, for example, could not understand why she had achieved such a low score on one of the examinations. "But I studied for hours!" she wailed. When I asked how she had studied, she looked back at me blankly—by rereading her notes and the book, of course. Repetition can only go so far. Elaboration may have helped to ensure that course material was solidly encoded in memory.

The concept of encoding failure emphasizes once again the importance of having and activating relevant prior knowledge in learning. In The Mechanic and the Web Surfer scenario, consider what relevant knowledge either Wes or Marcy could bring to bear in their discussions of car mechanics and Internet browsing. It is possible that each could retrieve enough to comprehend the other and respond appropriately during the conversation but not enough to encode details of the conversation for retrieval at a later time.

Failure to retrieve information that has been encoded in memory is a second cause of forgetting and refers to *the inability to access previously learned information.* This is something like losing the directory to your computer's hard drive. The files are still there, but without the appropriate cues (i.e., file names), they cannot be accessed and retrieved. Issues of encoding specificity and state-dependent learning have obvious relevance here. The more cues