have had a cholera shot"). Cheng et al. (1986) explained their findings in terms of a permission schema, which has a limited range of transfer.

Price and Driscoll (1997) concluded, however, that schema theory may be more limited in its ability to account for such results than Cheng et al. (1986) believed. They replicated D'Andrade's study with two modifications. Some subjects had practice in solving the problem in the familiar scenario before encountering the same problem in an unfamiliar scenario, and some subjects were provided feedback after the first problem to help them abstract the problem schema. Although feedback eliminated one of the errors subjects commonly make, neither intervention improved problem-solving performance.

Results such as these contribute to the ongoing debate as to whether transfer is highly limited in scope or whether it is broad and ranges across diverse domains. Whichever is the case, it should not be left to chance (Price & Driscoll, 1997). Rather, it is probably worth the effort of a teacher or designer to consider just what sort of transfer is desired and take steps to include instructional conditions that will effectively support it. In Chapter 5, situated cognition theory is explored as a promising approach to facilitating knowledge transfer.

Conclusion

The question of how knowledge is acquired, represented, accessed, and used is a complex one, for which there are no easy answers. This chapter has presented several contemporary approaches to knowledge representation for learning, thinking, and problem solving that provide insights beyond those of cognitive information-processing theory. But they, along with this chapter, have only scratched the surface.

> The solution to the riddle of Holmes and Watson is that they must have walked along the veranda from right to left. After they broke into the house round the corner from one end of the veranda, they passed through various rooms and along a corridor, and then they turned right into Milverton's study and saw a door that communicated with the veranda. (Johnson-Laird, 1983, p. 166)

Schema and Meaningful Reception Learning in "Kermit and the Keyboard"

Ausubel had little to say about learning of motor skills, so his theory does not account well for aspects of Kermit's learning that involve actually playing the keys to produce a sound. However, the conceptual knowledge about music that goes along with the ability to play is subject to analysis from the