

A Cognitive Basis for Combat Misidentification

Joseph R. Keebler, University of Central Florida

Lee W. Sciarini, University of Central Florida

Florian Jentsch, University of Central Florida

Denise Nicholson, University of Central Florida

Due to the real problem of friendly fire and misidentification, this chapter is structured to investigate some of the issues associated with misperception in combat. Specifically, we will discuss three cognitive theories and how they relate to problems of misidentification during combat. Using Biederman's Recognition by Components theory, Baddeley's Working Memory Model, and Anne Treisman's Feature Integration Theory, we describe the role of memory, perception and attention in making correct judgments in a combat setting. We also discuss a battery of experiments that demonstrate new possibilities for perceptual training, and lend recommendations for future research and training development.