Signal Words: Do Definitions Correspond With Connoted Hazard?

Kelly L. Drake, Vincent C. Conzola, Michael S. Wogalter North Carolina State University Raleigh, NC 27695

Signal words are used in warnings to attract attention and quickly communicate the level of hazard. The terms DANGER, WARNING, CAUTION, and NOTICE are frequently used to convey decreasing levels of hazard. Previous research has demonstrated that people perceive DANGER as connoting the greatest hazard and NOTICE the least hazard, while WARNING and CAUTION are seldom differentiated. In addition, the term DEADLY has been proposed as a signal word for extremely dangerous situations as research suggests that it connotes a significantly higher level of hazard than DANGER. To date, most signal word research has involved the rating of terms on connoted hazard without any associated context. No research has examined whether definitions assigned to signal words in warning standards and guidelines (e.g., ANSI) coincide with people's understanding of the words. College students and volunteers at a flea market attempted to match published definitions to the above signal words. Additionally, participants rated the terms on various dimensions similar to those used in earlier research (e.g., hazardousness, severity of injury, immediacy of injury, etc.). Results of both the matching and rating tasks confirm previous research showing that people differentiate DANGER and NOTICE from all other terms, and that discrimination between WARNING and CAUTION is less clear. The term DEADLY, tested with half of the participants, was perceived as connoting the greatest hazard. No differences between participant groups were found. The results have implications for future revisions of signal word standards and guidelines. Because the lay public does not distinguish between WARNING and CAUTION, the separate definitions assigned to them in standards and guidelines are specious and are unlikely to convey the intended difference in meaning. DEADLY is a term that people understand as signifying extreme hazard and could be useful in situations where the term DANGER is inadequate.