ABSTRACT. Some warnings and other public health interventions have been found to produce effects opposite to those intended. Researchers employing a variety of methods have observed these boomerang effects in connection with interventions in a number of different contexts. One possible explanation for such boomerang effects lies in the theory of psychological reactance, roughly defined as the state of being aroused in opposition to perceived threats to personal choice. In particular, some consumer reactions described in research on alcoholic beverage warnings, alcohol education efforts, and the minimum drinking age can be concisely explained in terms of psychological reactance. An obvious implication is that boomerang effects should be taken into account as one of the potential costs of launching a mass communication campaign or requiring a warning. In some cases (such as warnings about the health effects of alcohol abuse) there may be so little to be gained in terms of improved consumer knowledge that the potential cost of oppositional attitudes or behavior should receive substantial attention in the evaluation of proposed and current interventions.

Evaluations of warnings, education programs, mass media campaigns, and other interventions often conclude that such efforts have not been effective in dealing with public health problems (Foxcroft, Lister-Sharp, & Lowe, 1997; McCarthy, Finnegan, Krumm-Scott, & McCarthy, 1984; Sowell, 1995; Wallack, 1981, Wilde, 1993), and worse, may “boomerang” by engendering effects opposite to the intended ones (Clee & Wicklund, 1980; Guttmann, Kegler, & McLeroy, 1996; Stewart & Martin, 1994). Of the many possible explanations offered for these counterproductive effects, one has received considerable attention from social psychologists. This is the concept of psychological reactance, roughly defined as the state of being aroused in opposition to a perceived threat to personal choice. The possibility that information interventions can induce oppositional attitudes or behavior is of obvious importance in public policy, especially in the context of proposals to legislate communications efforts in
the form of additional mandated product warnings and counter-advertising.

Comprehensive evaluations of the warnings literature often mention instances of boomerang effects (e.g., Lehto & Miller, 1986; Stewart & Martin, 1994) and conclude that such instances suggest “caution about indiscriminate and uniformed use of warning messages” (Stewart & Martin, 1994, p. 13). Nonetheless, the potential costs of, factors that lead to, and individual differences associated with these boomerang effects have received relatively little attention in the warning evaluation literature (Wogalter, DeJoy, & Laughery, 1999).

Thus, one objective of this paper is to sensitize policy makers and consumer researchers to the frequency with which warnings and other information interventions appear to produce outcomes contrary to desired public health objectives. To this end, I begin with a discussion of the policy objectives commonly associated with warnings and other information interventions in general and alcoholic beverage warnings in particular. Next, I review the empirical evidence associated with the unintended consequences of warning messages about products other than alcohol. I continue with a review of the literature specific to unintended effects of alcoholic beverage warning labels, alcohol education programs (school-based, community-based, and mass media), and related legal restrictions such as minimum drinking age laws.

The second objective of the paper is to offer a framework within which these unintended consequences may be understood and potentially avoided. Thus, I briefly catalog the explanations offered in the literature and focus on the most common of these – psychological reactance.

The third objective of the paper is to suggest how individual differences might be expected to interact with public health interventions to produce counterproductive affective and behavioral responses. Thus, particular attention is given to the role played by individual differences in both drinking behavior and boomerang effects triggered by certain messages and controls.

The last objective of the paper is to consider the public policy implications of possible unintended consequences associated with a warning some have “simply assumed to be a laudable enterprise” (Gorman, 1997, p. 51).