here is to affect people’s attitudes without affecting their beliefs. People don’t think, “If I smoke brand X cigarettes, I will learn how to ride a horse like a macho cowboy.” They simply form a positive attitude toward the product on the basis of the product’s emotional association with other, inherently pleasant stimuli. Of course, once the attitude is formed, pressures toward consistency will lead people to think the product also has many positive features (e.g., “I think the hard pack best protects my smokes”) and purchase it. But these beliefs were not primary in the formation of the attitude; they came after the attitude had already been formed.

Classical conditioning of attitudes works best when unfamiliar or novel stimuli are involved (Cacioppo, Marshall-Goodell, Tassinary, & Petty, 1992; Staats & Staats, 1958). It even works when people are unaware that the unconditioned stimulus has occurred at all. Krosnick, Betz, Jussim, and Lynn (1992, Study 2) had participants view slide photographs of a woman engaged in various activities. Immediately preceding these slides were other slide photographs, which appeared for only 9 milliseconds (less than 0.01 second). For some participants, these slides depicted positive emotional scenes (e.g., a pair of kittens, a child with a doll), whereas for other participants, the slides depicted negative emotional scenes (e.g., a bloody shark, a skull).

Afterward, participants indicated how much they thought they would like the woman in the photographs and then rated her personality on a variety of scales (e.g., honest–dishonest, polite–rude, successful–unsuccessful). Figure 6.3 shows how powerful classical conditioning effects can be. Even though the slides were presented at exposure times too fast to be consciously recognized, participants formed more positive attitudes toward the woman when she was paired with positive emotional slides than when she was paired with negative emotional slides (Murphy & Zajonc, 1993; Niedenthal, 1990; M. A. Olson

**FIGURE 6.3**
Classically Conditioned Attitudes

Participants formed more positive attitudes toward a woman and believed she had a more pleasing personality when, through classical conditioning, she was associated with a positive emotional stimulus rather than a negative emotional stimulus. These findings suggest that classically conditioned feelings can precede and cause the formation of beliefs.