

# How Psychological Science Can Make a Difference

August 01, 2010

The tobacco industry has been taking advantage of psychology and the power of persuasion to make a killing (no pun intended) on the suggestible human mind. The Marlboro Man, Joe Camel, and Virginia Slims are just a few of the household cigarette brands associated with positive, glamorous images. “Tobacco companies have long appreciated the power of affect,” said APS Fellow and Charter Member Paul Slovic of Decision Research and the University of Oregon. “They use beautiful people in beautiful places doing exciting things for their marketing campaigns.” Now, psychological scientists are joining the fight to give Big Tobacco a taste of their own medicine.

During the National Cancer Institute-sponsored symposium “How Psychological Science Can Make a Difference: The Case of FDA Tobacco Product Regulation, Health Warnings, and Beyond” at the APS 22nd Annual Convention, researchers made the case for studying how graphic warning labels on cigarette packs may reduce nicotine consumption and make smokers more aware of the consequences of their behavior. (We’re not talking about a skull and crossbones here; the researchers showed gruesome pictures of diseased body parts, underweight newborn babies, and open chest cavities, just to name a few.)

The images often conjure up thoughts of our own mortality. Jamie Arndt, University of Missouri, pointed out that what we’re seeing here is a potential implementation of the Terror-Management Theory to curb smoking. In this case, research suggests that when some smokers see images related to death or dying, they will be more likely to quit smoking. Arndt presented research showing that graphic labels increase thoughts of death and that thoughts of death can decrease smoking intensity (e.g., vigor or duration of inhalation) among casual smokers. But there are also some ironic possibilities to be wary of. More habitual smokers, or those whose identity is wrapped up in being a smoker, may respond to thoughts of death by actually increasing smoking behavior. This research highlights the importance of also targeting how smoking relates to peoples’ identity to be most effective.



Several countries have already started including graphic images instead of text-based warnings on their labels. Because of recent regulation, U.S. smokers will be seeing these images in 2012. Geoff Fong of the University of Waterloo and the Ontario Institute for Cancer Research reported results from the 20-country research collaborative he leads — the International Tobacco Control Policy Evaluation Project — showing the superiority of graphic images over text-only warnings. Fong also presented leading-edge graphic warnings from other countries. In Brazil, for example, the images were chosen to elicit highly negative and arousing reactions. Some of the images on the cigarette packs have nothing to do with smoking at all. It doesn't matter, Fong says, "After all, what does a cowboy have to do with cigarettes? Brazil's images are designed to take back the pack — to replace industry-created positive associations to cigarettes with negative associations."

Linda Cameron from the University of Auckland, New Zealand, recognized that the effects of these graphic warning labels may take some time to materialize. She believes that we will see a significant difference in attitudes toward smoking among the children of this generation who will grow up with these graphic warning labels. Both Slovic and Cameron stressed the need for these labels to be a cog in the wheel of a larger media campaign about the dangers of smoking. "Warning labels are critical but education needs to go beyond that," Slovic said.

Not all images work, however. The images must be powerful enough to fight against the rewarding effects of nicotine for the smoker. Looking at data collected in the United Kingdom, Cameron and her colleagues, Brian Williams and Gerry Humphris, found that smokers rated images as most effective when they included symptoms or suffering arising from smoking, like diseased body parts, portrayed a sick or dead person, or featured a child or baby as a victim. Fong did the math: A pack-a-day smoker may see 7,300 graphic warnings in one year. Over time, the images should counteract, or even override, the rewards incurred from the cigarette.

In addition to getting smokers to quit, anti-smoking campaigns hope to prevent youths from starting to smoke. Unfortunately, the short-term perspective of young smokers prevents them from thinking about the risks of smoking. They expect to stop smoking before they suffer any harm. In addition, Slovic

noted that young smokers know that smoking entails some risk, but their comprehension of their own risk for disease and addiction is not developed. “The problem is you can’t fully appreciate the severity of lung cancer until you have it,” Slovic explained.