

Cold and Lonely: Does Social Exclusion Literally Feel Cold?

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When we hear somebody described as “frosty” or “cold”, we automatically picture a person who is unfriendly and antisocial. There are numerous examples in our daily language of metaphors which make a connection between cold temperatures and emotions such as loneliness, despair and sadness. We are taught at a young age that metaphors are meant to be descriptive and are not supposed to be taken literally. However, recent studies suggest that these metaphors are more than just fancy literary devices and that there is a psychological basis for linking cold with feelings of social isolation.

Psychologists Chen-Bo Zhong and Geoffrey Leonardelli from the University of Toronto’s Rotman School of Management wanted to test the idea that social isolation might generate a physical feeling of coldness. They divided a group of volunteers into two groups. One group recalled a personal experience in which they had been socially excluded—rejection from a club, for example. This was meant to tap into their feelings of isolation and loneliness. The other group recalled an experience in which they had been accepted into a group.

Then, the researchers had all the volunteers estimate the temperature in the room, on the pretense that the building’s maintenance staff wanted that information. The estimates ranged widely, from about 54 degrees F to a whopping 104 degrees F. Here’s the interesting part: Those who were told to think about a socially isolating experience gave lower estimates of the temperature. In other words, the recalled memories of being ostracized actually made people experience the ambient temperature as colder.

“We found that the experience of social exclusion literally feels cold,” Zhong said. “This may be why people use temperature-related metaphors to describe social inclusion and exclusion.”

In another experiment, instead of relying on volunteers’ memories, the researchers triggered feelings of exclusion by having the volunteers play a computer-simulated ball tossing game. The game was designed so that some of the volunteers had the ball tossed to them many times, but others were left out.

Afterwards, all the volunteers rated the desirability of certain foods and beverages: hot coffee, crackers, an ice-cold Coke, an apple, and hot soup. The findings were striking. As reported in the September issue of *Psychological Science*, a journal of the Association for Psychological Science, the “unpopular” volunteers who had been ostracized during the computer game were much more likely than the others to want either hot soup or hot coffee. Their preference for warm food and drinks presumably resulted from physically feeling cold as a result of being excluded.

“It’s striking that people preferred hot coffee and soup more when socially excluded,” Leonardelli said. “Our research suggests that warm chicken soup may be a literal coping mechanism for social isolation.”

These results open up new opportunities in exploring the interaction between environment and psychology, such as the study of mood disorders (e.g., Seasonal Affective Disorder). Research on

Seasonal Affective Disorder has focused on the idea that lack of sunlight during winter results in feelings of depression in normally healthy people. The current study indicates that the cold temperatures may also contribute to feelings of sadness and isolation felt during the winter months. In addition, this study suggests that raising the thermostat a bit might be an easy method of promoting group interaction and cooperation in social settings.