

# **Is chocolate as bittersweet as nostalgia? Cross-modal priming effects for taste and emotion**

**Kate Samson**  
Indiana University

**Melody Dye**  
Indiana University

**Steven J. Sherman**  
Indiana University

**Abstract:** Through metaphor, we are able to characterize very different domains with the same words, relying on the language of our shared physical experiences to help ground more abstract, less intuitive concepts. Prior research suggests that our shared ways of talking about the concrete and the abstract can produce priming effects that bridge modalities. Here, we examine this phenomena in the domains of taste and emotion. In particular, we look to nostalgia, a feeling that is often described as 'bittersweet'. Can a bitter taste sharpen the sadness of nostalgic feeling, while a sweet taste heightens the happy memories of yesteryear? In a series of experiments, we investigate the influence of gustation on emotional perception, and reveal the extent to which these links are verbally mediated. Further, we show how cataloging a word's usage patterns can yield fine-grained predictions about the nature and strength of cross-domain priming effects.