Effect of Character Weight and Health Knowledge on Children's Eating

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This research investigates (1) the influence of overweight priming on children across developmental stages, and (2) whether children have the cognitive ability to use health knowledge to reduce these effects. Three experiments demonstrate that overweight characters increase eating in children, and developmental differences in using health knowledge as a moderator.

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EXTENDED ABSTRACT

Just as overweight and obesity is increasing for adults, so it is for children. Since 1980, while the adult obesity rate has doubled, the childhood obesity rate has tripled with rates now near 17% (CDC). Increasingly, overweight and obese children are being diagnosed with obesity-related diseases that were previously the domain of adults, such as Type 2 diabetes.

While recent research has focused on environmental factors that influence adults’ consumption, little research examines such influences on children. Research has shown that perceived weight of others influences how much indulgent food adults eat (McFerran et al 2009, Campbell & Mohr 2011), but there has been no research that examines such effects on children. In fact, while there is a significant body of research on priming effects on adults’ behavior, little research examines whether such effects occur for children as well.

The primary purpose of this research is to examine whether the weight of cartoon characters influences children’s consumption of low nutrient, high calorie food (e.g., cookies). This is an important topic because while children are regularly exposed to overweight characters in entertainment and marketing, there is little evidence as to how this impacts their behavior.

Research on adults suggests that exposure to someone overweight activates an overweight stereotype that includes the ideas that overweight people over-eat indulgent foods and that they are not committed to taking care of their health. It is the activation of these parts of the stereotype that is believed to lead adults exposed to someone overweight to eat more (Campbell & Mohr 2011). This raises two questions: 1) do children hold an overweight stereotype that includes overeating and low health commitment, and 2) does exposure to an “overweight” character activate an overweight stereotype in children.

The limited research on the content of children’s overweight stereotypes suggests that there are developmental differences in stereotype specificity; young children merely hold general negative attitudes, with increasing specificity with age (Penny & Haddock 2007). Thus, it is unclear whether children’s overweight stereotypes are specific enough to include the link between eating and becoming overweight. If this link does not exist, the body weight of characters is unlikely to influence their consumption. Second, it is unclear whether a cartoon character will serve to activate a human stereotype.

We propose that the link between eating indulgent foods, weight and health are taught to many children at a very young age. Parents and other authority figures frequently tell children to eat or not to eat certain foods and to limit consumption of indulgent foods. Thus, we propose that even young children will have a stereotype that links overweight and eating. Because children consistently see non-human characters in “human” situations, we also propose that overweight characters will activate children’s overweight stereotypes and increase food consumption.

Importantly, there is evidence that in adults, increasing the accessibility of health goals or the stereotype-behavior link can reduce the effects of the prime (Campbell & Mohr 2011). Yet, with children, evidence from the development literature indicates that young children may not be able to use knowledge as a cognitive defense because of difficulty in retrieving stored information (Brucks, Armstrong, & Goldberg 1988). We propose that there will be developmental differences in children’s ability to make use of their health knowledge to reduce the effects of the stereotype prime on eating.

We present three studies that, together, examine the influence of perceived weight of cartoon characters on the quantity of indulgent food eaten for children in three stages of consumer socialization: the reflective stage (ages 11 – 16), the analytical stage (ages 7 – 11), and the perceptual stage (ages 3 – 7; Roedder John 1999). Additionally, the third study will examine whether young children have the cognitive ability to make use of health knowledge to reduce the effects of the stereotype prime.

Study 1 examines the prime to behavior link for children aged 12 to 13 (n=60), and finds that children take more candies when exposed to an overweight character than when exposed to a normal weight character (M=3.7 vs M=1.5, p = .04). Considering that children’s environments are much more complex than simply one prime character, study 2 examines the prime effect on behavior when the prime is a combination of an overweight and a normal weight character for children aged 13 to 14 (n=75). Results show that children take fewer candies when exposed to a normal weight character alone (Mnormal=1.7) than either an overweight character alone (Moverweight=3.2; p < .01) or the overweight and normal weight characters together (Mcombined=3.2; p < .01). Taken together, Studies 1 and 2 demonstrate the robustness of the prime to behavior link for children in the reflective stage of development.

Study 3 will examine the prime to behavior link for children in the analytical stage (age 9 – 10, n=100 – 150), and in the perceptual stage (age 6 – 7, n=100 – 150), and test whether the children have the cognitive ability to make use of health knowledge to reduce the effects of the stereotype prime. Data for this study will be collected in March and April (we have agreement from a school). We hypothesize that both groups of children will show the prime to behavior link, but that only the older group of children will have the cognitive ability to use their health knowledge to reduce the effects of the stereotype prime.

Overall, this set of studies contributes to the literatures on stereotype priming and children’s development by examining the prime to behavior links of an overweight prime on children across three stages of development. We find a robust prime effect of an overweight character (alone and with a normal-weight character), and examine the potential of health knowledge activation to reduce these prime effects.

REFERENCES


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