Independent novices were the most self-interested, choosing red and white wines that were as expensive as possible, depending on their wine preferences. Independent experts also significantly increased the prices of red and white wines they chose according to their own preferences, but did so to a lesser degree than novices.

Importantly, these results are not driven by individuals' assumptions about others' preferences—independents who liked red wine did not choose more expensive red wines because they assumed everyone at the table would be drinking red wine, just like them. Most participants thought the break down of red versus white wine drinkers at the table would be about 50/50, and these predictions did not differ according to self-construal.

Our initial study suggests that independents sacrifice others' interests for their own and behave selfishly even when making decisions for a group. This initial study raises a number of interesting questions. What motivated independent experts in our study to make less biased choices for the group? What might encourage independent individuals to make better group choices? In a future study, we plan to manipulate group characteristics to answer some of these questions: for example, what if the group is comprised of wine experts vs. novices, or red vs. white wine drinkers? Manipulating these characteristics will uncover the dynamics that underlie individuals' choices on behalf of others.

In conclusion, when selecting someone to make a decision for other people, choose individuals with interdependent self-construals—or you might end up drinking house wine while they enjoy an award winning blend.

References

Aaker, Jennifer and Bernd Schmidt (2001), "Culture-Dependent Assimilation and Differentiation of the Self," *Journal of Cross-Cultural Psychology,* 32(5), 561-576.

Alba, Joseph W. and J. Wesley Hutchinson (1987), "Dimensions of Consumer Expertise," Journal of Consumer Research, 13(4), 411-454.

Ariely, Dan, and Jonathan Levav (2000), "Sequential Choice in Group Settings: Taking the Road Less Traveled and Less Enjoyed," *Journal of Consumer Research,* 27(3), 279-281.

Bettman, James R., Mary Frances Luce and John W. Payne (1998), "Constructive Consumer Choice Processes," *Journal of Consumer Research,* 25(3), 187-218.

Corfman, Kim P., and Donald R. Lehmann (1987), "Models of Cooperative Group Decision-Making and Relative Influence: An Experimental Investigation of Family Purchase Decisions," *Journal of Consumer Research,* 14(1), 1-13.

Markus, Hazel R., and Shinobu Kitayama (1991), "Culture and the self: Implications for Cognition, Emotion, and Motivation," *Psychological Review,* 98, 224-253.

Oetzel, John G. (1998), "Culturally Homogeneous and Heterogeneous Groups: Explaining Communication Processes Through Individualism-Collectivism and Self-Construal," *International Journal of Intercultural Relations,* 22(2), 135-161.

Singelis, Theodore M. (1994), "The Measurement of Independent and Interdependent Self-construals," *Personality and Social Psychology Bulletin*, 20, 580-591.

West, Patricia M., Christina L. Brown and Stephen J. Hoch (1996), "Consumption Vocabulary and Preference Formation," *Journal of Consumer Research,* 23(2), 120-135.

The Influence of Observed Body Movements on Consumer Behavior

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An astonishing finding of research on embodied cognition is that motor behaviors and muscle contractions affect cognitive processes (Strack, Stepper, & Martin, 1988; Förster & Strack, 1996; Strack & Neumann, 2000; see for an overview Niedenthal, Barsalou, Winkielman, Krauth-Gruber, & Ric, 2005). In line with this research, recent studies found that body movements also have an impact on consumer judgments and behaviors (Förster, 2003; 2004). In these studies, participants rated products (Förster, 2003) or tasted a soft drink (Förster, 2004) and, at the same time, were asked to execute certain body movements. For instance, they were instructed to press their hand either up against the table from underneath, or down onto the table. Pressing one's hand up from underneath results in arm flexion, a movement that is related to grabbing something and pulling it towards oneself. It is argued that such movements are associated with approach-related behaviors and cognitive representations. In contrast, pressing one's hand down, results in arm extension, a defensive movement used to keep something at distance. It was found that arm flexion led to more positive judgments of a drink (Förster, 2003) and an increased drink intake (Förster, 2004).

In this study, we examined whether not only the execution, but already the observation of body movements affects consumer behavior. There is evidence that, observing other's actions, observing individuals seem to run an internal simulation of the observed behavior. This simulation occurs automatically (Gallese, 2001) and leads to neural activation in brain areas associated with the execution of the movements (Buccino et al., 2001). Also, there is indirect evidence for such a simulation to occur. Some mental disorders as well as orbito-frontal lesions lead to the symptom of echopraxia: the impulsive repetition of observed actions or heard sentences that occur with reflex-like immediacy (Lhermitte, Pillon, & Serdaru, 1986). We assumed that the observation of a body movement leads to a mental simulation of the movement and, thus, affect cognitive processes in the same way as the execution does.

However, we also assumed that individuals differ in the degree to which they are susceptible to the effects of observed body movements. Research on empathy has shown that people differ significantly in the degree to which they can feel the internal states of others

(Chlopan, McCain, Carbonell, & Hagen, 1985). Based on these findings, we assumed that for observers that are empathic with the observed person, observing the execution of motor actions should result in automatic cognitive responses similar to those elicited by actually carrying out those actions.

Method

Fifty-nine female undergraduate psychology students participated in the study for a small reward and partial course credit. Participants first completed a questionnaire for trait empathy (Leibetseder, Laireiter, Riepler, & Köller, 2001). Subsequently, they answered questions according to sports and recent consumption of food, drinks, and alcohol. Then, the experimenter provided participants with a glass of water and asked them to drink from it until they feel not thirsty any longer. Afterwards, the experimenter presented them a short video showing an athlete exercising with a bell bar. In the approach condition, the athlete was standing upright, pulling the weight from his waist to his chest, executing arm flexions against the weight. In the avoidance condition, he was lying on his back, pushing the weight up from his chest, doing arm extensions. Before the video started, participants obtained a glass with 300 ml of a drink which was said to be a new functional sports drink. The experimenter told participants that they should taste the drink and could drink as much as they wanted to do. After participants watched the video and tasted the drink, the experimenter thanked and debriefed the participants. The main dependent measure was the amount participants drank from the offered drink.

Results

We conducted a regression analysis with the amount participants drank as dependant variable and empathy as well as the dummy coded type of movement in the video as predictors. As expected, we found empathic observers to consume more of the drink while watching the approach related arm flexion movement than while observing the avoidance related arm extension movement. Observers low in empathy drank less when watching arm flexions than when watching arm extensions. The interaction term of empathy and type of movement had a significant effect on the amount participants drank from the offered drink. The main effects of empathy, and type of movement were not significant.

Discussion

Studies have shown that body movements and muscle contractions influence judgments and behaviors (e.g., Förster, 2003; 2004). Since the observation of other people's movements tends to elicit neural activations similar to those elicited by executed movements (Buccino et al., 2001), we assumed that also the observation of body movements affects consumer behavior. Our findings support this assumption for empathic observers. When observing arm flexion, a movement that is associated with grabbing and pulling something closer, high empathic observers drank more of an offered drink. When observing an arm flexion, a defensive movement that is involved in keeping distance and essentially incompatible with consumption, empathic observers drank less. Less empathic observers, in contrast, exhibited the inverse pattern.

Our findings extend recent research on embodied cognition showing that consumer behavior might be affected by processes related to motor areas in the brain. Previous research has shown the influence of own body movements. We showed that also the representation of body movements of others leads to similar effects. Further research should examine whether body movements, for instance in TV advertising spots, may have long time effects on the product evaluations or whether observing body movements has only immediate effects on evaluations and behavior.

References

Buccino, G., Binkofski, F., Fink, G. R., Fadiga, L., Fogassi, L., Gallese, V., Seitz, R. J., Zilles, K., Rizzolatti, G., & Freund, H.-J. (2001). Action observation activates premotor and parietal areas in a somatotopic manner: an fMRI study. *European Journal of Neuroscience, 13*, 400–404.

Chlopan, B., McCain, J., Carbonell, J., & Hagen, R. (1985). Empathy: Review of available measures. *Journal of Personality and Social Psychology, 48*, 635-653,

Förster, J. (2003). The influence of approach and avoidance motor actions on food intake. *European Journal of Social Psychology, 33*, 339-350.

Förster, J. (2004). How body feedback influences consumers' evaluation of products. *Journal of Consumer Psychology, 14*, 416-426.

Förster, J., & Strack, F. (1997). Motor actions in retrieval of valenced information: A motor congruence effect. *Perceptual and Motor Skills, 85*, 1419-1427.

Gallese, V. (2001). The "shared manifold" hypothesis: from mirror neurons to empathy. *Journal of Consciousness Studies, 8*, 33-50.

Leibetseder, M., Laireiter, A.-R., Riepler, A., Köller, T. (2001) E-Skala: Fragebogen zur Erfassung von Empathie–Beschreibung und psychometrische Eigenschaften [E-scale: Questionnare for the assessement of empathy–description and psychometric properties. Zeitschrift für Differentielle und Diagnostische Psychologie, 22, 70-85.

Lhermitte, F., Pillon, B., & Serdaru, M. (1986). Human autonomy and the frontal lobes. Part I: Imitation and utilization behavior: a neuropsychological study of 75 patients. *Annals of Neurology, 19*, 326-334.

Niedenthal, P. M., Barsalou, L. W., Winkielman, P., Krauth-Gruber, S., & Ric, F. (2005). Embodiment in attitudes, social perception, and emotion. *Personality and Social Psychology Review, 9*, 184-211.

Strack, F., & Neumann, R. (2000). Furrowing the brow may undermine perceived fame: The role of facial feedback in judgments of celebrity. *Personality and Social Psychology Bulletin, 26*, 762-768.

Strack, F., Stepper, S., & Martin, L. L. (1988). Inhibiting and facilitating conditions of the human smile: A nonobtrusive test of the facial feedback hypothesis. *Journal of Personality and Social Psychology, 54*, 778-777.