Consumer and Product Face-To-Face: Antecedents and Consequences of Spontaneous Face-Schema Activation

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In practice, designers sometimes give products a human-like appearance in the hope of increasing liking due to anthropomorphizing. It remains an open research question, however, whether the mere morphological shape of a product's design is sufficient to activate a human schema. To investigate the spontaneous associations that are elicited by a product's shape, we ran a lexical decision task contrasting human faces, car fronts (which may resemble faces), and car sides. We examined further the effects of anthropomorphizing on explicit product evaluations. Our results support anthropomorphizing as an automatic process that affects explicit judgments but also reveal a moderating factor.

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EXTENDED ABSTRACT

The concept of anthropomorphism is gaining in popularity in marketing and product design. Particularly in automotive design, the trend to develop cars whose fronts look like the human face is increasing (e.g., VW Beetle, Mini). But, in striving for product success, whether the mere morphological shape of a product’s design is sufficient to activate a human schema is, as yet, an unanswered question. In the context of marketing-mix activities, what specific contribution can anthropomorphic product design make to developing a product’s personality? To answer these questions, evidence on the psychological process which underlies anthropomorphizing is needed. Aggarwal and McGill (2007) recently proposed the schema-congruity theory to explain how anthropomorphism works, but their experimental approach left it open if consumers anthropomorphize products spontaneously when they see a human-like product (i.e., according to an automatic bottom-up process) or whether it has to be triggered externally.

In our project, we were particularly interested in the tendency to anthropomorphize products due to their similarity to a human face. We chose real cars as objects of investigation and compared car fronts with car sides, since we assumed that the design of car fronts should resemble a human face, whereas the design of car sides should obviously not. To gain deeper insights into the cognitive mechanisms, we investigated in study 1 whether the activation of a face-schema in memory is an automatic, feature-driven process leading to anthropomorphizing car fronts but not car sides and, in study 2, we examined the effects of anthropomorphizing on explicit product evaluations.

Study 1: To investigate whether a car might be associated spontaneously with a human face solely due to its design features we settled on a lexical decision task (LDT) which was performed by 165 native German speakers. The participants’ task was to categorize a target stimulus as a word versus a non-word ignoring a preceding picture prime. For all participants, words stemmed from two categories (face-words vs. car-words). With regard to the preceding picture primes, participants were randomly assigned to one of three priming conditions, so that they were primed either with pictures of cars presented in front view, cars presented in side view, or faces. Latency for participants’ lexical decisions was recorded in milliseconds for each trial.

If the mere product design really accounts for the activation of a human schema, different response latencies to face- and car-words between the three priming conditions should occur. We hypothesized that average response patterns in the face condition should be similar to response patterns in the car front condition, but different from response patterns in the car side condition (face vs. side: t(110)=-0.20, p=.044; front vs. side: t(98)=2.52, p=.013) which was also congruent with our expectations.

Study 2: The same participants who performed the LDT were asked to rate pictures of cars on different scales (the pictures were identical to the pictures which were used in the LDT as primes). One group of participants rated cars shown in front view, the other group rated cars shown in side view. The scales assessed general marketing variables (e.g., liking, willingness to pay) and specific evaluative tendencies which should go together with anthropomorphizing (e.g., attribution of a human personality to the car). Furthermore, we also assessed the participants’ personal disposition to anthropomorphize cars.

We assumed as explicit evaluative consequences of automatic face-schema activation and, therefore, anthropomorphizing that participants should rate car fronts higher than car sides on the anthropomorphism scales and, therefore, car fronts are maybe also evaluated better than car sides with regard to the marketing variables. As ratings on the anthropomorphism-related scales were highly correlated (r=.74, p<.001), we created a composite variable, named the anthropomorphism score. Overall, to our surprise, participants did not rate car fronts significantly higher on the anthropomorphism score than car sides (F(1, 82)=2.45, p=.122). However, when controlling for a participant’s personal disposition to anthropomorphize, we found the expected main effect of the car view on the anthropomorphism score with fronts being more anthropomorphized than sides (F(5, 71)=8.54, p=.005). Likewise, participants were willing to pay more for cars seen in front vs. side views (F(1, 71)=4.55, p=.036) and general positive affect elicited by cars was higher for front than side views (F(1, 71)=10.65, p=.002), when controlling for personal disposition in both analyses.

General discussion: Our results support the assumption that consumers anthropomorphize products spontaneously solely due to anthropomorphic design features and provide insights into the relative priority of anthropomorphic thoughts. Specifically, findings show that car fronts not only bring to mind the human schema more than car sides bring forth this schema, they bring to mind the human schema more than the actual product category schema. This remarkable, but maybe also non-intuitive effect could be explained by the growing evidence from neuropsychological studies indicating that face-selective responses have very short latencies what makes the processing of faces special compared to the processing of non-face objects (e.g., Farah et al. 1998; Seeck and Grüsser 1992). Furthermore, spontaneous anthropomorphizing also seems to affect explicit product evaluations positively under certain conditions, for example, depending on personal variables. Our pattern of results suggests that future research is needed to examine the interplay and relative influence of implicit and explicit anthropomorphic thoughts on consumer behavior.

REFERENCES


