I 'Heart' You: The Effects of Consumers' Schema Congruity/Incongruity on Attention, Recognition and Evaluation of Fair Labor Messages from Apparel Brands

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In response to growing demand for fair labor (FL) apparel, and to stand out amidst competition, apparel brands must communicate their FL efforts through marketing messages that are persuasive and memorable so they could elicit favorable consumer evaluation. Literature suggests that consistent reinforcement of its image is the key for brands to create effective marketing communications (Keller, 2003). Then, what happens to consumers if they encounter a certain brand message that is different from their existing brand expectations, such as a fair labor message from a brand which does not have an image of being socially responsible? According to Mandler's schema-congruity theory (1982), humans process new information based on their existing expectations or schemas. Information congruent to schema is considered familiar, processed effortlessly and leads to positive evaluation. Incongruent information is unfamiliar, leads to extensive processing to resolve incongruity, and, results in positive evaluation if incongruity is resolved or negative if not resolved. However, little research exists on psychological and physiological reactions such as attention devoted, *while* consumers are processing (in)congruent messages or their recognition and evaluation of such messages. In this regard, attention is important since if consumers do not pay attention to messages, it is unlikely that such messages have been processed deeply enough to impact their future purchase choices.

For this purpose, we used participants' heart rate variation as physiological indicator of psychological process, attention, following psycho-physiology literature (Leshner, Bolls & Thomas, 2009). Since heart rate decelerates when attention increases (Leshner et al., 2009) we hypothesized (H1) *attention, that is, heart rate deceleration, will be higher during exposure to incongruent than congruent FL messages.* Moreover, if consumers pay increased attention to process a message, they should be able to recognize it better (Shapiro, 1994). It is important for brands that consumers *recognize* their marketing information in subsequent purchase situations (Shapiro, 1994). Therefore, we hypothesized *(H2) recognition will be better for incongruent than congruent FL messages.* Moreover, as attitude to messages is an indicator of how consumers evaluate messages and is dependent on consumer's schema-message congruity/ability to resolve incongruity (Mandler, 1982). Thus we hypothesized *(H3) compared to congruity, consumers will have more positive (negative) attitude toward message, if incongruity is resolved (not resolved).*

Two studies were conducted. The Study 1 was a 3(schema: congruity/incongruity resolution/incongruity non-resolution) x 4 (brand replications) x 4 (message replications) mixed model laboratory experiment. 75 participants were recruited at a Mid-west city to analyze participants' attention (heart rate deceleration), recognition and attitude to (in)congruent messages. Schema and message replication were between subjects while brand replication was within subject. Since the aim was not to restrict the study findings to one particular brand or

message but to brands' FL messages in general, 4 apparel brands with 4 messages from each brand were created, resulting in 16 unique FL messages. Pre-schemas about the four brands' FL efforts (5 items; α=0.95) were asked first. Then, participants randomly saw 4 different messages, one from each brand, with heart-rate activities recorded using electrodes during message exposure. After every message (timed for 30 secs), they completed post-schema and attitude questions (4 items; α=0.96). Next 16 recognition questions (16 clippings of stimuli: 8 targets/true information; 8 foils/false information) were randomly presented to measure message recognition.

Heart rate data were averaged for every second and analyzed as change scores from baseline using 2 (schema congruity/incongruity) X 30 (time) repeated measures ANOVA. Schema X time interaction was significant [$F_{(29, 43)} = 2.65$, $p = .04$]. Heart rate deceleration over time (attention) was higher for participants with incongruity, than congruity, supporting H1. Two-group (schema congruity/incongruity) independent sample t-test indicated that recognition accuracy (proportion of correct recognition of target clips) was higher for incongruent than congruent messages ($t = -6.46$, $p < .001$). For attitude to message, 3-group (schema congruity/ incongruity before but resolved after message exposure/incongruity before and *not* resolved after message exposure) one-way ANOVA was conducted. Results found significant group differences ($F = 8.385$, $p = .001$). Compared to congruity, attitude was not more positive for participants' incongruity resolution [mean diff ($\Delta \bar{x}$) = 0.13, $p = 0.84$] but negative for incongruity non-resolution ($\Delta \bar{x} = 1.08$, p = .003). Thus, H3 was partially supported. Next, Study2 was conducted to validate the non-significant findings of H3 in Study1 using 500 adults recruited through a national online survey. Participants saw two different messages from two different brands. Schemas and attitude to messages were measured similar to Study1. Results indicated that incongruity had less positive ($\Delta \bar{x} = 0.66$, $p < .001$) and incongruity non-resolution had negative ($\Delta \bar{x} = -2.07$, $p < .001$) attitude than congruity, again, partly supporting H3.

Overall, the studies bridge the gap between human cognition and attitude by combining self-reported and physiological responses for investigating (in)congruent FL messages. Participants' increased attention to incongruent FL messages implied that FL messages from brands with image of being socially irresponsible might face increased consumer scrutiny and thus need careful design. However, incongruent elements made participants recognize messages better. Additionally, since participants' attitude was positive for incongruity resolution than non-resolution, brands revitalizing their image should design FL messages persuasive enough to be able to resolve consumers' incongruity to elicit positive consumer evaluation. Future research involving other predictors of attitude such as message credibility would be beneficial.

<div align="center">References</div>

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