The Role of Brand Schemas, Information Transparency, and Source of Message on Apparel Brands’ Social Responsibility Communication

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Abstract
In today’s complex business environment, apparel brands are communicating about their socially responsible (SR) practices through marketing messages to create a niche for themselves and show their SR efforts. However, SR aspects of products are difficult to verify by consumers. To help brands effectively communicate their SR efforts, this study assessed how consumers process an apparel brand’s SR messages based on their prior experiences with that brand (brand schemas). Information transparency on messages and source of messages were tested as external cues to influence consumers’ brand schemas and SR message evaluations in a mixed method repeated measures online experiment using a national US consumer sample. Results from regression based conditional process analyses indicated that increased congruity of consumers’ schemas to the fact that brands are SR led to more favorable attitude toward brands’ SR messages. Also, presence of high information transparency on SR messages influenced consumers’ schemas positively, and in turn, they evaluated messages more favorably. However, consumers were not influenced by whether messages were made by brands or third-party organizations. The study results show the importance of brand schemas and information transparency on apparel brand communications, helping both apparel brands and educators create effective SR-related marketing strategies.

Keywords: schema, transparency, third party certificate, bootstrap, apparel brand, social responsibility

Introduction
A recent market survey across 60 countries revealed that at least 55% percent of consumers prefer products from SR brands (Nielsen 2014). These consumers are increasingly concerned about where and how their products are made, in addition to other product attributes. In response to this rising demand, brands are communicating about their SR practices through their marketing messages to create a niche for themselves and to show that they are doing their part for social improvement.

In this study, we particularly focus on SR messages from apparel brands. SR marketing messages are especially important for apparel brands for three main reasons. First, apparel brands are often under media scrutiny for their less-than-responsible practices, such as...
employment of child labor or poor working conditions (Boje & Khan 2009). This concern is mostly because labor intensive apparel products are often manufactured in developing or underdeveloped countries, using cheap labor with few regulations to protect the environment. Second, the fragmented nature of the industry makes it difficult for consumers to know the social consequences of their apparel products as a whole. In other words, when consumers see an apparel product made in Country A, they may not know that the fabric is made in Country B and other components, such as buttons/zippers, could be made in Countries C or D with different levels of social compliance regulations. Third, SR attributes of apparel products are credence attributes, that is, difficult to evaluate even after purchase and/or use because of consumers’ lack of technical knowledge or the high cost of obtaining information (Organization for Economic co-operation and Development, 1997). In other words, by looking at an apparel product, it is difficult for consumers to verify whether it is made socially responsibly or not. Thus it becomes important that apparel brands effectively communicate about their SR initiatives through relevant SR messages with their target audience.

Previous research indicates that while some consumers positively respond to SR messages, consumers who have once been deceived by or have a negative opinion about a brand are found to be defensive towards future communications from the brand, in order to protect themselves from further acts of deception (Darke and Ritchie 2007). Therefore, consumers’ prior experience with a brand is expected to influence their evaluation of future SR-related communications from the brand. In addition, since SR attributes of apparel products are credence attributes, consumers often demand easy-to-understand and transparent communication of SR business practices to validate the messages (Bhaduri and Ha-Brookshire 2011). In response, brands such as Adidas and Patagonia, have expressed in their annual reports that the credibility of their fair labor programs is largely dependent on transparent communication of their efforts. In addition, extensive research indicates the importance of transparency in ensuring effectiveness of brands’ social responsibility initiatives (Dubbink et al. 2008). Also, consumers have been found to prefer that information come from trustworthy sources, such as certifying organizations, to aid in decision making (Bhaduri and Ha-Brookshire 2011). Therefore, to come across as credible in their SR efforts, brands are increasingly using certifications/accreditations from third party organizations such as ISO, Fair Trade, Sweat Free, etc (Castka and Balzarova, 2008). In spite of the growing importance of information transparency and third party endorsements in trying to build credibility of SR messages, limited research is available on how consumers evaluate SR messages from brands based on their previous experiences, transparent information, and the source of messages. Therefore, to help brands clearly and effectively communicate their SR efforts, this study was designed to investigate the impact of consumers’ existing brand experiences on their attitude towards apparel brands’ SR related messages and the impact of information transparency and source of messages on the relation.

**Literature Review and Research Hypotheses**

**Social responsibility (SR) messages**

In today’s competitive business environment with minimal product differentiation, brands are adopting alternate techniques, such as using SR related marketing messages, to stand out amidst competition. In general, marketing messages provide consumers with accurate
information about a product, service or even packaging (US FTC 2012). SR messages, in addition, inform consumers about a product’s social and ethical impacts and reduce consumers’ search costs by providing information that are often difficult to verify (Thorgensen, Haugaard and Olesen 2010).

The effect of SR related marketing messages on consumers’ responses have been studied extensively (Peloa and Shang 2010). Consumers have been found to pay attention to brands’ SR efforts for their purchase decisions and their evaluation of the brands’ overall image (Foo and Yazdanifard 2014). Consumers were also found to change their brand attitudes based on SR marketing messages from brands (Olsen, Slotegraaf and Chandukala 2014). Particularly, in apparel related research, studies indicate that SR messages positively influence apparel consumers’ attitudes and their purchase intentions (Hustvedt and Bernard 2008, 2010). However, literature also suggests that consumers are often skeptical towards SR messages based on their prior knowledge about the brand or their lack of trust on the legitimacy of apparel brands’ SR efforts (Bhaduri and Ha-Brookshire 2011). Especially in the apparel industry, consumers are often presented with mislabeled fibers, such as rayon as bamboo, and raccoon-dog fur as faux fur. Therefore, it might be essential for brands to pay extra attention to ensure the accuracy of their SR messages to avoid skepticism and deception and prove their honest efforts towards SR practices (Darke and Ritchie 2007). In this light, limited research can be found, in general, on why skepticism is formed amongst consumers and how that influences their processing and evaluation of future SR marketing message from brands, with virtually no research available with respect to apparel brands. Therefore, to help apparel brands understand how such skepticism is formed amongst consumers and provide strategies to foster positive consumer attitudes towards brands’ SR communications, two related theories are reviewed.

Schema Congruity Theory and Information Processing Theory of Consumer Choice

According to the schema congruity theory, individuals process new information based on their schemas or “representations of experience” stored in memory (Mandler 1982, p.3). Each subsequent occurrence of an event is evaluated against an existing schema and an individual’s reaction is dependent on whether the new information conforms to set expectations (Mandler 1982). When new information is congruent to existing schema, an individual experiences a sense of familiarity and, as a result, evaluates the event positively (Mandler 1982). However, any incongruity or conflict is regarded as disturbing and if that incongruity is not resolved, individuals tend to have a negative evaluation of the event (Dahlen and Lange 2004).

According to the information processing theory for consumer choice [IPTCC] (Bettman 1979), in ideal situations, consumers should be able to make instant choices by referring to their internal information sources (schemas) such as recall of product/brand attributes. However, when internal information, that is, schema, is conflicting to new information, consumers search for external information to resolve their incongruity.

Interpreting schema congruity theory and IPTCC in the context of brand communication literature, consumers often have a set of prior associations with a brand, called brand schemas (Dahlen, Lange, Sjödin, and Törn 2005). These brand schemas are attributes, beliefs, attitudes, or experiences connected to the brand name in memory and form the meaning of the brand for the consumer (Dahlen et al. 2005). Associations stored in consumers’ schema about a familiar brand are strong, personal and relevant and
might act as standards of comparison new brand-related information. Therefore, whenever consumers encounter brand message that is congruent to their existing schema, they might evaluate it positively. However, when their existing message does not match their brand schema, consumers might feel disturbed, and, in turn, evaluate the message negatively, especially when they are not able to reconcile the new information (Dahlén and Lange 2004).

**Brand-schema and attitude toward SR messages**

Attitude toward a message is an important indicator of how consumers evaluate marketing messages and a measure of message effectiveness (Hyllegard et al. 2012; Purohit 2012). For the purpose of this study, it is defined as predisposition to respond in a favorable or unfavorable manner to a particular SR message stimulus during a particular exposure occasion (MacKenzie and Lutz 1989).

Extensive research has been conducted on the impact of how incongruity between different structural components of messages, especially advertisements, influence consumers’ evaluation of messages (Dahlen and Lange 2004). However, very little study has been conducted on how consumers evaluate marketing messages from brands, based on their existing schemas about the brands. In one of the few studies dealing with brand schemas and brand messages, Dahlén and Lange (2004) found that when consumers’ existing schema was congruent to the message, there was no significant change in their attitude. In contrast, a later study using solely familiar brands found that attitude toward the message was more favorable when consumers’ existing schemas were congruent to the message than when it was incongruent. However, no such study has been conducted on the impact of consumers’ SR related brand schemas on their evaluation of SR related marketing messages from the apparel brand, even though today’s consumers have been found to consider SR aspects of their products for purchase choices. Apparel brands, in response to this demand, are incorporating SR messages in their marketing communications to differentiate themselves. However, the success of such marketing messages will depend on consumers’ positive evaluation of the same. In this regard, attitude toward an SR message is selected for this study as a measure of consumers’ message evaluation, since if a marketing message is not liked by consumers, it is unlikely that the message will influence their future consumption choices (MacKenzie and Lutz 1989). Therefore, based on the schema congruity theory, the study hypothesizes:

**H1:** _Attitude toward apparel brands’ SR messages will be more favorable when consumers’ pre-existing schema (pre-schema) is more congruent to the fact that brand is socially responsible, than when such pre-schema is less congruent to the same._

Theory also suggests that, in addition to pre-schemas, schemas formed after exposure to new information (post-schemas) influence consumers’ evaluation of events. These post-schemas indicate whether consumers are able to reconcile the new information to emphasize, extend or change their existing schemas (Bettman 1979, Mandler 1982). Mandler (1982) suggested that in case of congruity between pre-schema and new information, easy assimilation occurs with no important structural changes of the pre-schema. On the other hand, moderate incongruity can be resolved through minor structural changes in the pre-schema, while severe incongruity needs a disruption in pre-schema. The structural changes in pre-schemas will then result in new post-schemas after successful or failed reconciliation between

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the new information and the pre-schemas (Bettman 1979, Mandler 1982). These pre-schemas are then thought to influence consumers’ evaluation of events (Mandler, 1982), in this case, attitudes toward the new information. Therefore we hypothesize:

**H2:** Consumers’ post-schemas mediate the relationship between their pre-schemas and attitude toward a brand’s SR message, such that, a more positive post-schema (indicating increased congruity to the fact that the brand is socially responsible) will result in a more favorable attitude toward message.

### External information affecting brand schema

According to IPTCC, human beings often resort to external sources of information to resolve schema incongruity. Literature indicates two such types of external information: (1) information transparency of messages, and (2) source of messages. Given the importance of transparency stated in many annual reports of apparel brands, such as Adidas and Patagonia, transparency was focused in this research. Sources of messages were investigated due to increasing role of third-party certifications or accreditations, such as Fair Trade and Sweat Free, in apparel brand communication (Castka and Balzarova, 2008).

**Information transparency in SR messages**

According to Merriam-Webster (2010), transparency is defined as “visibility and accessibility of information especially regarding business practices.” Information transparency can act as a ‘resolution message or hint’ that helps a consumer resolve schema incongruity by bridging the gap between an apparently unrelated claim and consumers’ existing brand schema (Lee and Schumann 2004, 75). Especially, in case of difficult-to-verify SR messages, transparent information might reduce information asymmetry, perceived risk, and skepticism by providing additional evidence about where and under what conditions products are made (Hustvedt and Bernard 2008; US FTC 2012). In the apparel literature, Dickson (2001) found that US consumers are favorable to SR messages with transparent information about labor/manufacturing issues for their purchasing decisions. In another study, consumers exposed to advertisements containing transparent information were found to have more positive attitudes about eco-friendly product claims, compared to non-transparent advertisements (Yan, Hyllegard and Blaes 2012). Although existing studies indicate that the presence of information transparency leads to favorable opinion about SR messages, it fails to identify the how the effect takes place. Based on our review of literature which indicates that information transparency might help reduce incongruity between pre-schema and new information and lead to more congruent post-schemas, this study hypothesizes:

**H3:** Information transparency moderates the relationship between consumers’ pre-schemas and their post-schemas.

### Source of messages

Literature suggests that consumers often evaluate information based on heuristics, such as the source of information, about which they hold enduring beliefs, learned through experience (Babutsidze 2012). The SR-related apparel literature indicates that two sources of messages are especially important for consumers: (a) brands themselves, and (b) third-party organizations or TPOs (Bhaduri and Ha-Brookshire 2011; Yan, et al. 2012).

In earlier studies, consumers were found to regard brand controlled messages as valuable sources of information, especially in the early stages of decision-making for evaluating product attributes (Calfee and...
Ringold 1994). However, such advertisements were often considered less credible than TPO sources (Xingyuan, Li, and Wei 2010). According to Dean and Biswas (2001), TPO endorsement is defined as a product claim that incorporates the name of a third party and an (explicit or implicit) evaluation of the product attribute by the third party. TPOs are generally considered credible and indicators of high quality since they offer an increased access to experts who evaluate products, testing facilities, equipment, and a great degree of information (Dean and Biswas 2001). TPO endorsements for SR related marketing communications have been found to reduce consumers’ perceived risks (Rios, Martinez, Moreno, and Soriano 2006). Therefore, TPO endorsement as compared to brand’s own marketing messages can act as an important link that can help resolve incongruity between consumers’ pre-schemas and the SR message by providing signals of the experts’ advice and credibility, leading to more congruent post-schemas. Therefore, the study hypothesizes:

\[ H4: \text{Source of message moderates the relationship between consumers’ pre-schemas and their post-schemas.} \]

**Method**

**Research design and stimuli development**

This study employed a 2 (transparency: high/low) X 2 (source: apparel brand/TPO) X 4 (apparel brands: NIKE®/Adidas®/Reebok®/New Balance®) X 2 (type of message: Made in USA/Fair Labor) mixed model repeated measures experiment. Transparency and source were between-subject variables while brand and type of message were within-subjects.

**SR-related marketing messages**

Two types of SR marketing communications were used for the study: Fair Labor and Made in USA. First, today’s consumers want to know under what conditions their products are made (Dickson 2001). They often believe that, since apparel manufacturing is labor intensive and most manufacturing is done in underdeveloped or developing countries to take advantage of cheap labor costs, it has high potential to impact people’s lives (Bhaduri and Ha-Brookshire 2011). Moreover, tragedies such as the recent factory collapse in Bangladesh emphasized the need to raise awareness about fair labor practices such as providing safe and healthy work environments for factory workers (Alam 2013). Although many apparel brands show their fair labor efforts through SR marketing messages, the accuracy of such messages is difficult to assess by average consumers.

Second, today’s consumers are conscious about the origin of products and often take extra initiatives to purchase products made domestically using domestic raw materials to help support the domestic economy (Ha-Brookshire 2012). This patriotism among US apparel consumers was promoted by ethnocentrism after the 9/11 attacks coupled with the economic recession of 2008 (Lee, Hong and Lee 2003). Therefore, apparel brands now are increasingly making Made in USA messages to cater to consumers’ demands. However, not all such messages provide information about the US based supply chain, leaving consumers to verify the accuracy of such messages. Therefore, messages regarding Fair Labor and Made in USA were deemed suitable for this study.

Each SR message was manipulated to incorporate transparency X source treatment variance, leading to four versions of each message: (a) high transparency/brand source; (b) high transparency/TPO source; (c) low transparency/brand source; and (d) low transparency/TPO source. For Made in USA messages, a message was considered highly transparent when information was provided on
whether the brand designs, procures raw materials and manufactures their products in USA and low transparent in absence of such information. For Fair Labor messages, a message was considered highly transparent when it contained information about whether the brand pays fair wage, does not employ child labor and provides safe work environment, and low transparency when such information was not present.

Regarding media messages, each message can be a combination of infinite number of attributes and, thus, difficult to isolate a message on just one attribute (Thorson, Wicks, and Leshner 2012). Having multiple messages in the experimental design reduces the between-message variance to random error (Thorson et al. 2012) and allows researchers to generalize the results to a greater population of messages. Therefore, to introduce message variance, four different sets of messages were created for each Made in USA and Fair Labor message using four different brands and TPOs, leading to a total of 32 messages for all four conditions.

Selection of apparel brands
To measure participants’ existing brand schemas, familiar brands were selected (Dahlén and Lange 2004). First, six apparel brands were shortlisted by four professors and the primary researcher at a major Mid-Western university in the United States, based on the brands’ efforts to make clothes in USA (or not) or employ fair labor practices (or not). Next, 100 participants recruited through a crowd-sourcing platform, Amazon Mechanical Turk (AMT) rated the brands based on their familiarity, on a scale of 1 (not familiar at all) to 5 (extremely familiar), and their existing schemas about the brands’ efforts to make clothes in USA and practice Fair Labor. 93 usable responses indicated that the most familiar brands were NIKE® (mean= 4.18, s.d. = 0.896), Adidas® (mean= 3.83, s.d. = 0.947), Reebok® (mean= 3.77, s.d. = 0.859), and New Balance® (mean=3.10, s.d. =3.10).

Moreover, the mean schemas (about Made in USA and Fair Labor) for these four brands, measured on 7 point Likert-type scale (-3 as strongly disagree to +3 as strongly agree) showed variations. For participants’ existing schema about brands’ Fair Labor efforts, New Balance® had the highest mean (mean= 0.29, s.d. = 1.0738), followed by Adidas® (mean= 0.073, s.d. =1.279), NIKE® (mean=.000, s.d. =1.535), and, finally, Reebok (mean= -0.3, s.d. = 2.862). For participants’ existing schema about the brands’ efforts to make clothes in USA, New Balance® scored the highest mean (mean= 0.297, s.d. = 0.778), followed by NIKE® (mean= 0.027, s.d. =1.38), Reebok® (mean= -0.050, s.d. = 1.156), and, Adidas® (mean=-0.155, s.d. =1.301). In this regard, a higher mean indicated participants’ increased congruity to the fact that brands employed fair labor practices or made clothes in USA. Consequently, four brands, NIKE®, Adidas®, Reebok®, and New Balance® were deemed appropriate.

Measures
Pre-schema, an independent variable, was operationalized as consumers’ existing schema about a brand’s Fair Labor or Made in USA efforts. It was measured on a 7-point Likert-type scale (-3: Strongly disagree to +3 strongly agree). Pre-schema related to brand’s Made in USA efforts were measured using 5 items adapted from Maronick (1995): (Brand) supports US economy; (Brand) is committed to enhancing the number of US jobs; (Brand) is committed to keeping dollars in the U.S.; (Brand) manufactures some or all of its products in the U.S.; and (Brand) sources its raw materials from the U.S. Five items adapted from Dickson (2001) measured participants’ schema related to brand’s Fair Labor practices: (Brand) pays fair wages to its workers; (Brand) provides workers safe workplaces; Child labor is
generally not used by (Brand); (Brand) requires that their workers do not work more than normal working hours without extra compensations; and (Brand) cares about its workers. The actual name of the brand whose message was shown was replaced in all the items.

Post-schema, a mediating variable, was operationalized as consumers’ brand schema after exposure to a particular message. It was measured using the items as pre-schema with slight modifications to the anchoring question.

Attitude toward message, a dependent variable, was measured using a 4-item 7-point semantic differential scale. Participants were asked to indicate if the message they saw was Favorable/Unfavorable, Pleasant/Unpleasant, Good/Bad and I like it very much/ I dislike it very much (MacKenzie and Lutz 1989; Burton and Lichtenstein 1988). Appendix A shows examples of stimuli images.

**Stimuli manipulation check**
For stimuli manipulation check, 160 participants recruited through AMT indicated if the message they saw came from a brand’s website or a third party website. For Fair Labor messages, there was statistically significant differences in participants’ identification of the two sources of messages for all four brands [Adidas®: \( \chi^2 (1,80)=18.9, \ p<.001 \); New Balance : \( \chi^2 (1,80)=96.9, \ p<.001 \); NIKE : \( \chi^2 (1,80)=8.9, \ p<.001 \); Reebok : \( \chi^2 (1,80)=21.9, \ p<.001 \)]. Similarly for Made in USA messages, there were significant differences between the two sources of messages for Adidas® \( \chi^2 (1,78)=9.64, \ p=.002 \), New Balance® \( \chi^2 (1,78)=12.8, \ p=.002 \), NIKE® \( \chi^2 (1,78)=4.6, \ p=.032 \), and Reebok® \( \chi^2 (1,78)=8.03, \ p=.005 \).

Second, since the study measured brand schema, it was needed to ensure that brand names were noticeable on the messages. For all messages, 98.6% to 95% of participants correctly recalled brand names, deeming this manipulation successful. Lastly, manipulation of information transparency was checked using 80 participants recruited separately through AMT. For Made in USA messages, 93% to 72% of participants agreed that high transparency messages contained relevant information about brands’ Made in USA practices and 91%-70.3% of participants agreed that low-transparency messages did not. Similarly, for Fair Labor messages, 93% to 76% of participants agreed the high transparency messages contained relevant information about brands’ Fair Labor efforts, and 85%-75% of participants agreed that low-transparency messages did not, making the manipulation of transparency successful for both types of messages.

**Sample selection**
An online experiment was conducted using 500 adult US consumers recruited through a market-based research firm, Qualtrics. First, participants answered a set of demographic questions and indicated their pre-schemas about the four apparel brands’ Made in USA and Fair Labor efforts. Second, each participant viewed 4 stimuli messages (each timed for 30 seconds), one version of Made in USA or Fair Labor message from each brand, based on a random assignment. After each message exposure, participants self-reported their post-schema about the brand’s Made in USA/Fair Labor efforts and their attitude toward the specific message. A quota was created to ensure equal distribution of gender (50% male, 50% female). Three attention filters included in the questionnaire to ensure validity of the study. Participants had to type the word ‘Survey’ and select ‘strongly disagree’ on two different occasions as indication of their active involvement in the study. Data for participants who did not answer these questions accurately were removed from study analyses.

**Data Analyses and Results**

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**Respondent profile**
Descriptive analysis was conducted to understand the demographic characteristics of the respondents. Table 1 shows respondent characteristics.
[Table 1 here]

**Principal component analysis and scale reliability**
Principal component analysis (PCA) with oblique rotation was conducted on schema items. PCA using eigenvalue >1 revealed two principal components for each pre-schema (83.7% of total variance) and post-schema (85.3% of total variance) scales. Five pre-schema items for Made in USA loaded on component 1 with factor loadings of 0.97 to 0.55, while those 5 for Fair Labor loaded on component 2 with factor loadings of 0.94 to 0.66. Similarly, five pre-schema items for Made in USA loaded on component 1 with factor loadings of 0.92 to 0.88, while those 5 for Fair Labor loaded on component 2 with factor loadings of 0.94 to 0.90. The two-dimensional nature of the scams indicated that participants’ pre and post-schemas might be different based on the type of SR message.

Reliability (Cronbach’s α) of pre-schema items was 0.95, post-schema was 0.89, and attitude toward message items was 0.97. For inferential statistics, responses to ten pre-schema (post-schema) items were recoded as 1 to 7 and averaged to obtain one pre-schema (post-schema) score for each message exposure per participant. For attitude toward message, responses to four items were averaged to obtain one score per message per participant.

**Hypotheses tests**
To test the study hypotheses, PROCESS (Hayes 2013), a macro which uses path analysis-based technique to test for multiple moderators and mediators was used. PROCESS utilizes regression based conditional process analyses using bootstrapped confidence intervals (bootstrapping). In bootstrapping, a large number of samples, in this case 5000, of the actual sample size of the study (here, n=500) is extracted from the original sample with replacement. Then a distribution is created using the products of the path coefficients (a1*b2, a2*b2, etc.) from each sample along with their confidence intervals and p-values. Bootstrapping was considered suitable for the study purposes since it does not make any normality assumption on response distribution (as needed for causal approach to mediation) and does not require a large sample size (as needed for structural equation modeling), while providing high statistical power for the test (Hayes 2013).

First, given the two-dimensional nature of schema scales as evidenced from PCA, to check the potential interaction effects of SR message types and pre-schemas, message type (Made in USA/ Fair Labor), was introduced as moderator in the relationship between pre-schema and attitude toward message. Results revealed that pre-schema influenced attitude toward message positively for both types of messages (unstandardized b=0.32, p<.001, CI95= 0.2, 0.5). This indicated that attitude toward message was more favorable when consumers’ pre-schema was higher, that is, more congruent to the fact that apparel brand was socially responsible, than when such pre-schemas are less congruent. However, there was significant interaction between message type and pre-schema (b=0.12, p=.005, CI95= 0.04, 0.2), indicating that the effect of pre-schema on attitude was different for Made in USA messages compared to Fair Labor messages.

Therefore, Fair Labor and Made in USA messages were examined separately for all further hypotheses tests. For all further analyses, 5 items specifically measuring pre-schema related to Made in USA (or Fair Labor) were averaged to obtain one pre-schema score

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for Made in USA (or Fair Labor) per participant per message exposure. Similar computation was done for post-schema items. Reliabilities of the 5-item pre-schema scales were 0.94 (Made in USA) and 0.95 (Fair Labor), and that for post-schema were 0.96 (both Made in USA and Fair Labor).

H1 proposed that participants’ more congruent pre-schemas leads to more favorable attitudes toward message. For Fair Labor messages, results showed that participants’ pre-schema had significant influence on their attitude toward message for both Fair Labor and Made in USA messages (Fair Labor: $b=0.14$, p<.001, $CI_{95} = 0.08, 0.19$; Made in USA: $b=0.15$, p<.001, $CI_{95} = 0.10, 0.2$). This indicated that attitude toward message was more favorable when consumers’ pre-schema was higher, that is, more congruent to the fact that apparel brand was socially responsible, than when such pre-schemas were less congruent. Therefore, H1 was supported for both Fair Labor and Made in USA messages.

H2 proposed that participants’ post-schemas mediated the relationship between their pre-schemas and attitudes toward message. Results indicated that participants’ pre-schema significantly affected their post-schema for both types of messages (Fair Labor: $b=0.66$, p<.001, $CI_{95} = 0.56, 0.75$; Made in USA: $b=0.56$, p<.001, $CI_{95} = 0.47, 0.66$). Also, post-schema influenced attitude toward the message (Fair Labor: $b=0.78$, p<.001, $CI_{95} = 0.73, 0.83$; Made in USA: $b=0.7$, p<.001, $CI_{95} = 0.7, 0.75$). Therefore, post-schema was found to positively mediate the relationship between pre-schema and attitude toward the message, supporting H2 for both types of messages. Thus, participants’ schemas became more congruent after exposure to the messages which in turn, influenced their attitude toward message more favorably. In addition, pre-schema also directly affected attitude toward the message, positively (Fair Labor: $b=0.14$, p<.001, $CI_{95} = 0.08, 0.19$; Made in USA: $b=0.15$, p<.001, $CI_{95} = 0.10, 0.2$), indicating partial mediation effect of post-schema. However, the direct effect of pre-schema on attitude was much smaller than the effect post-schema on attitude, indicating that participants’ schema after exposure to message was a better predictor of their attitude toward message than their pre-existing schema.

H3 proposed that transparency of information moderates the relationship between participants’ pre-schemas and post-schemas. Results indicated that the interaction term pre-schemaXtransparency was statistically significant (Fair Labor: $b= -0.2$, p<.001, $CI_{95} = -0.3, -0.09$; Made in USA: $b= -0.19$, p<.001, $CI_{95} = -0.29, -0.08$). More specifically, information transparency negatively moderated the relationship between pre-schemas and post-schemas. This indicated that in case of transparent messages, participants relied more on the message itself than their pre-schemas to form their post-schemas. Therefore, H3 was supported for Fair Labor and Made in USA messages. Further analyses revealed that transparency also directly positively influenced post-schema (Fair Labor: $b= -1.75$, p<.001, $CI_{95} = 1.26, 2.24$; Made in USA: $b= -1.45$, p<.001, $CI_{95} = 0.96, 1.94$). Therefore, high information transparency lead to more positive post-schemas, that is, increased congruity to the fact that brands take efforts to employ fair labor/make apparel in USA.

H4 predicted that source of message moderates the relation between participants’ pre-schemas and post-schemas. Results indicate that the interaction term pre-schemaXsource was not statistically significant (Fair Labor: $b= 0.02$, p=0.72, $CI_{95} = -0.08, 0.12$; Made in USA: $b= -0.08$, p=0.15, $CI_{95} = -0.18, 0.03$), meaning source did not moderate the relation between pre and post schemas. That is, participants did not change their image about apparel brand’s Fair Labor practices (or Made in USA efforts) based on whether the message was made by the

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brand itself or a TPO. Therefore, H4 was not supported for both Fair Labor and Made in USA messages. Figure 1 shows the results of the study hypotheses.

Further analysis revealed the interaction of source and transparency. Pre-schemas affected attitude toward message through post-schema the most for non-transparent messages from TPO (Fair Labor: effect=0.51, S.E. =0.05, CI95= 0.43, 0.61; Made in USA: effect=0.39, S.E.=0.04, CI95= 0.31, 0.48), and, the least for transparent messages from brands (Fair Labor: effect=0.37, S.E.=0.04, CI95= 0.29, 0.47; Made in USA: effect=0.21, S.E.=0.03, CI95= 0.14, 0.3). That is, in case of transparent messages from brands, participants relied least on their pre-schema to form opinion about brand’s Fair Labor and Made in USA efforts. Table 2 shows the direct and conditional (indirect) effects of pre-schema on attitude toward message mediated by post-schema.

Table 2 here

Discussions and Implications

To help apparel brands effectively communicate their SR efforts, the study investigated the effect of consumers’ existing schema, information transparency and source of messages on consumers’ evaluation of SR messages. Five hundred responses were collected in a 2(transparency)X 2(source)X 4(brands)X 2(types of messages) mixed model repeated measures online experiment.

The study has important findings and therefore, several important contributions and implications. The study results showed that participants evaluated apparel brands’ SR messages based on their schemas about the brands’ SR related efforts, thus supporting the schema-congruity theory (Mandler 1982). The study findings also indicated that external information or information transparency influences participants’ schema congruity/incongruity about apparel brands’ Made in USA and Fair Labor efforts, thus supporting Bettman’s (1979) information processing theory of consumer choice. These findings may be important designing marketing messages for apparel brands who suffer from less-than-perfect images about their SR practices, in order to build and enhance strong positive SR related brand schemas. Detailed contributions and implications of the study are listed below.

First, the study results indicate attitude toward apparel brands’ SR messages was more favorable when consumers’ pre-existing schema was more congruent to the fact that brand is socially responsible, than when such pre-schema was less congruent. Therefore, by establishing more congruent brand schemas in consumers’ minds, apparel brands might be able to elicit more favorable evaluation of their SR marketing communications. In an age where product differentiation is minimal and multiple brands are marketing their products as ‘socially responsible,’ having a positive (congruent) brand schema related to social responsibility might help apparel brands to create a niche in the market. Also, participants’ schema after exposure to message was a better predictor of their attitude toward message than their pre-existing schema. Therefore, apparel brands willing to improve their reputation might take measures to create effective communication strategies that would enhance schemas in consumers’ minds to elicit positive attitude toward their messages. The study results indicate that one way to foster positive and congruent schema might be by providing

---

1 Effect= total indirect effect of pre-schema on attitude toward message through post-schema. This is equal to: [direct effect (unstandardized regression coefficient) of pre-schema on attitude toward message, controlling for post-schema] - [effect (unstandardized regression coefficient) of pre-schema on attitude toward message]

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transparent information about brands’ SR practices as information transparency was found to positively influence participants’ post-schemas.

Second, information transparency negatively moderated the relation between pre and post-schema. When a Fair Labor or Made in USA message contained relevant supporting information, consumers formed their new schema about the apparel brands’ Fair Labor or Made in USA efforts based more on marketing messages and less on their past schemas. In fact, transparency also directly positively affected post-schema, meaning a participants’ new brand schemas were more positive when they saw high-transparent than low-transparent messages. Therefore, apparel brands willing to improvise their existing schemas in consumers’ minds might consider providing information about exactly where raw materials are sourced from, where apparel manufactured in the USA or the various initiatives from brands to ensure fair labor practices such as above-minimum wage and safe working environment, to be transparent in their SR messages. Especially, transparent information might help reduce consumers’ schema incongruity by providing a link between apparel brands’ SR messages and consumers’ incongruent schema related to the brands’ SR efforts. This might help apparel brands suffering from negative images for getting involved in tragedies such as the recent Bangladeshi factory collapse to improve their SR related schema in consumers’ minds. These results indicate that as much as it is important for apparel brands to actually undertake SR related efforts, it is equally important for them to communicate with their consumers about their efforts in a simple, easy-to-understand manner on their SR messages. In this light, certain firms, such as Adidas and Patagonia, have expressed in their annual reports that the credibility of their fair labor programs is largely dependent on transparent communication of their efforts. Although this study focuses on transparency on static webpages, such information can be provided through multiple avenues such as hang-tags, product packages and labels. Many brands, such as Levis and Nike provide consumers the ability to know more about the brands’ social responsibility efforts through information on their websites, where it is even possible to trace a particular product to its manufacturing facilities. However, care should be taken that the information provided is succinct and easy-to-understand to avoid consumers’ information overload (Feng and Burleson, 2009; Lorek and Lucas, 2003).

Third, participants did not change their opinion about the apparel brand’s Fair Labor/ Made in USA practices based on who makes the claims. Therefore, contrary to existing research and common market trend of providing third-party endorsements by brands to create more trustworthy marketing messages, this study did not find any significant effect of third-party endorsements on consumers’ schema. In fact, participants were found to be most influenced by highly transparent messages from brands themselves. Therefore, in case of limited budget, to seek a balance between economic profitability and positive brand schema, apparel brands might choose to be transparent in their messages rather than spending resources on third-party endorsements. This might be particularly important while designing product sourcing strategies for smaller businesses which have limited resources but want to create their niche in the market as employing Fair Labor or making clothes in USA.

Finally, the study results also provide implications for academicians. In an age of intense market competition and advanced information technology, it is important that academicians prepare students to create effective communication strategies for apparel brands. The study shows that being transparent in their SR messages, brands can provide a link

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between their SR messages and consumers’ existing brand schemas to stand out in the advertisement clutter and differentiation. Moreover, the study results show the relative importance of information transparency versus third-party endorsement for SR messages, thereby helping educators teach students the need to strategically allocate their limited resources for maximizing return.

**Limitations and Scope for Future Research**

The study has certain limitations. First, the study manipulated source of messages as either the brand itself or a third-party organization. However, the study did not measure or control for participants’ varying schemas about the third-party organizations used. Literature review suggests that consumers often question the legitimacy of certifying/endorsing agents and perceive them as mere profit making organizations willing to lower their requirements to acquire clients (Bhaduri and Ha-Brookshire 2011). Therefore, future research involving schemas about brands and third-party organizations can be fruitful in understanding the influence of sources of messages on message evaluations. Second, environmental messages or other types of SR related messages were not considered for study purposes. Previous research indicates that the environment is emerging as one of the world’s most important business issues of the decade. Therefore, future research involving schemas environmental efforts of apparel brands might be beneficial.

Third, the study uses all active-wear apparel brands, namely, NIKE®, Adidas®, Reebok® and New Balance® and includes only US consumers. Therefore, future study involving non-active-wear brands and global consumers might be more essential before study results can be generalized. This is because the meaning structures associated with fair labor and domestically produced products might differ across countries and cultures.

**References**


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Acknowledgment

Funding for this project was provided by Center for the Digital Globe at the University of Missouri.

Table 1

Demographic Characteristics of Study Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Levels</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
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<td>Age</td>
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<td>0.4</td>
</tr>
<tr>
<td></td>
<td>21-24</td>
<td>8</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>25-30</td>
<td>32</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>31-35</td>
<td>33</td>
<td>6.6</td>
</tr>
<tr>
<td></td>
<td>36-40</td>
<td>31</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>41-45</td>
<td>52</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>46-50</td>
<td>60</td>
<td>12.0</td>
</tr>
<tr>
<td></td>
<td>51-55</td>
<td>79</td>
<td>15.8</td>
</tr>
<tr>
<td></td>
<td>56-60</td>
<td>81</td>
<td>16.2</td>
</tr>
<tr>
<td></td>
<td>61 and up</td>
<td>122</td>
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</tr>
<tr>
<td>Gender</td>
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<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>250</td>
<td>50.0</td>
</tr>
<tr>
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<td>22.6</td>
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<td></td>
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<td>50.0</td>
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<td></td>
<td>Divorced/Widower</td>
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<td>19.4</td>
</tr>
<tr>
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<td>7</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>High school degree</td>
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<td>23.0</td>
</tr>
<tr>
<td></td>
<td>Some college education</td>
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<td>29.4</td>
</tr>
<tr>
<td></td>
<td>College degree</td>
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<td>29.6</td>
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<td></td>
<td>Graduate degree</td>
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<td>12.2</td>
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<tr>
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<td>Other</td>
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<td>0.2</td>
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<tr>
<td></td>
<td>Non-Student</td>
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<tr>
<td>Employment Status</td>
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<td>24.0</td>
</tr>
<tr>
<td></td>
<td>Employed Part Time (1-39 hours/wk)</td>
<td>79</td>
<td>15.8</td>
</tr>
<tr>
<td></td>
<td>Employed Full-Time (40 or more hours/wk)</td>
<td>183</td>
<td>36.6</td>
</tr>
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<td></td>
<td>Retired</td>
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<td>23.6</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Caucasian</td>
<td>419</td>
<td>83.8</td>
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African American/Black 42 8.4
Hispanic/Latino 19 3.8
Asian 9 1.8
Middle Eastern 2 0.4
Pacific Islander 1 0.2
Native American/Alaskan 7 1.4
Other 1 0.2

Income
Less than $10,000 24 4.8
$10,000-$29,999 120 24.0
$30,000-$39,999 70 14.0
$40,000-$59,999 111 22.2
$60,000-$89,999 95 19.0
$90,000-$119,999 39 7.8
$120,000-$199,999 34 6.8
$200,000 and above 7 1.4

*Note.* Number of participants (n) = 500.

### Table 2

**Results of Bootstrapping: Direct and conditional effects of Pre-schema on Attitude toward message mediated by Post-schema**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>b*</th>
<th>S.E.</th>
<th>t</th>
<th>p</th>
<th>LLCIa</th>
<th>ULCIb</th>
<th>R²(Sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fair Labor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-schema</td>
<td>Post-schema</td>
<td>0.655</td>
<td>0.046</td>
<td>14.141</td>
<td>&lt; .001</td>
<td>0.564</td>
<td>0.746</td>
<td>0.39(&lt; .001)</td>
</tr>
<tr>
<td>Transparency</td>
<td>Post-schema</td>
<td>1.748</td>
<td>0.249</td>
<td>7.026</td>
<td>&lt; .001</td>
<td>1.259</td>
<td>2.236</td>
<td></td>
</tr>
<tr>
<td>Pre-schemaX</td>
<td>Post-schema</td>
<td>-0.197</td>
<td>0.052</td>
<td>-3.759</td>
<td>&lt; .001</td>
<td>-0.300</td>
<td>-0.094</td>
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</tr>
<tr>
<td>Transparency</td>
<td>Source</td>
<td>-0.245</td>
<td>0.248</td>
<td>-0.983</td>
<td>0.324</td>
<td>-0.732</td>
<td>0.242</td>
<td></td>
</tr>
<tr>
<td>Pre-schemaX</td>
<td>Source</td>
<td>0.019</td>
<td>0.052</td>
<td>0.356</td>
<td>0.722</td>
<td>-0.084</td>
<td>0.121</td>
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</tr>
<tr>
<td>Post-schema</td>
<td>Attitude toward message</td>
<td>0.779</td>
<td>0.024</td>
<td>32.335</td>
<td>&lt; .001</td>
<td>0.732</td>
<td>0.826</td>
<td>0.63(&lt; .001)</td>
</tr>
<tr>
<td>Pre-schema</td>
<td>Attitude toward message</td>
<td>0.135</td>
<td>0.026</td>
<td>5.246</td>
<td>&lt; .001</td>
<td>0.084</td>
<td>0.185</td>
<td></td>
</tr>
</tbody>
</table>

**Made in USA**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>b*</th>
<th>S.E.</th>
<th>t</th>
<th>p</th>
<th>LLCIa</th>
<th>ULCIb</th>
<th>R²(Sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-schema</td>
<td>Post-schema</td>
<td>0.562</td>
<td>0.047</td>
<td>11.883</td>
<td>&lt; .001</td>
<td>0.469</td>
<td>0.655</td>
<td>0.28(&lt; .001)</td>
</tr>
<tr>
<td>Transparency</td>
<td>Post-schema</td>
<td>1.447</td>
<td>0.249</td>
<td>5.789</td>
<td>&lt; .001</td>
<td>0.956</td>
<td>1.937</td>
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</tr>
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Pre-schema $\times$ Transparency Post-schema $\times$ Transparency

Pre-schema Source Post-schema Source

Post-schema Attitude toward message Post-schema Attitude toward message

Pre-schema Attitude toward message

<table>
<thead>
<tr>
<th>Source</th>
<th>Post-schema</th>
<th>Pre-schema</th>
<th>Post-schema</th>
<th>Source</th>
<th>Post-schema</th>
<th>Pre-schema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparency</td>
<td>-0.187</td>
<td>0.053</td>
<td>-3.532</td>
<td>&lt; .001</td>
<td>-0.290</td>
<td>-0.083</td>
</tr>
<tr>
<td>Source</td>
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<td>0.250</td>
<td>0.649</td>
<td>0.517</td>
<td>-0.328</td>
<td>0.652</td>
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<td>Pre-schema</td>
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<td>0.053</td>
<td>-1.426</td>
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<td>-0.179</td>
<td>0.028</td>
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<tr>
<td>Post-schema</td>
<td>0.698</td>
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<td>&lt; .001</td>
<td>0.649</td>
<td>0.747</td>
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<tr>
<td>Pre-schema</td>
<td>0.148</td>
<td>0.024</td>
<td>6.110</td>
<td>&lt; .001</td>
<td>0.101</td>
<td>0.196</td>
</tr>
</tbody>
</table>

Note. *Represents unstandardized regression coefficient. $^a$LLCI: Lower Level Confidence Interval. $^b$ULCI: Upper Level Confidence Interval. $^c$ Indicates $R^2$ and significance for the model where Post-schema is the DV and Pre-schema, Transparency and Source are the IVs. $^{SS}$ Indicates $R^2$ and significance for the model where Attitude toward message is the DV and Post-schema is the IV.

Figure 1: Results of Study Hypotheses. *Represents Third-party organization.
APPENDIX

EXAMPLES OF STIMULI ITEMS (Brand names blocked out)

Made in USA: High Transparency/ Brand Source
Made in USA: High Transparency/ TPO Source

Made in USA: Low Transparency/ Brand Source
Made in USA: Low Transparency/ TPO Source

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Fair Labor: High Transparency/ Brand Source

100% FAIR LABOR |
fair wage
We pay higher than minimum wage

no child labor
Never employ children under the age of 17

freedom of association
Workers gain freedom to form associations

safe work environment
Safe and healthy work environment

raw materials
Guaranteed for authentic,

design process
Designed and created by design designers

sewing and finishing
Machine sewing, multiple colors and finishes

shipping
To your store and to your house

Fair Labor: High Transparency/ TPO Source

100% FAIR LABOR |
fair wage
We pay higher than minimum wage

no child labor
Never employ children under the age of 17

freedom of association
Workers gain freedom to form associations

safe work environment
Safe and healthy work environment

raw materials
Suitable for authenticity,

design process
Designed and created by designers

sewing and finishing
Machine sewing, multiple colors and finishes

shipping
To your store and to your home

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