Psychology & Marketing

Shopping under the Influence: Nonverbal Appearance-Based Communicator Cues Affect Consumer Judgments

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ABSTRACT

Researchers have conducted much work to examine the influence of advertising, branding, product appearance, and store layout on consumer judgments in retail contexts. Very limited research, in comparison, has assessed the impact of nonverbal employee cues on retail communication. The present work therefore examined the influence of nonverbal, dominance-related communicator cues on perceivers' judgments of information delivered by the communicator. Specifically, this research assessed the impact of communicator clothing color (Studies 1a–1c) and facial width-to-height ratio (Study 2) on perceived information accuracy. Perceivers judged the information presented by the communicator to be more accurate when the communicator (a) was wearing red rather than white or blue, or (b) possessed a high versus low facial width-to-height ratio. Thus, although explicit information in the retail environment undoubtedly affects consumers' judgments, they may also be influenced by more subtle cues. © 2014 Wiley Periodicals, Inc.

Similar to many public figures and corporate leaders, President Obama frequently wears red neckties when addressing the public on critical political issues (Khan & Dwyer, 2010). Many Americans who support Obama may believe that their support arises solely from carefully considering Obama's political platform and his performance in office. It is likely that far fewer individuals would acknowledge that their political preferences are influenced by more subtle cues, such as Obama's eye gaze during political speeches, his facial structure, or even the red color of his necktie. Research indicates, however, that nonverbal appearance-based cues can influence the impressions that individuals form of others, including judgments about status, dominance, and authority (Feltman & Elliot, 2011; Leigh & Summers, 2002; Little & Hill, 2007; Ten Velden, Baas, Shalvi, Preenen, & De Dreu, 2012). These cues may include not only facial width-to-height ratio (fWHR; Geniole, Keyes, Mondloch, Carré, & McCormick, 2012) and physical attractiveness (Little & Roberts, 2012), but also clothing color (Elliot et al., 2010). Indeed, just as an individual's facial structure or attractiveness may elicit particular impressions from others, individuals may strategically select the color of their clothing to influence the impressions that perceivers form of them. Perceivers' impressions of a communicator can influence their reactions to persuasive appeals delivered by the communicator (Briñol & Petty, 2009; DeBono, & Harnish, 1988; Petty, Cacioppo, & Goldman, 1981; Ziegler, Diehl, & Ruther, 2002). Thus, nonverbal appearance-based cues that are displayed by retail employees may influence how consumers respond to persuasive communication delivered by these employees.

Indeed, nonverbal appearance-based cues that make retail employees appear more dominant or influential may influence the extent to which consumers believe that product information delivered by these employees is factually accurate. Understanding the factors that influence perceptions of information accuracy may be particularly important in retail contexts, given that consumers may be especially skeptical that retail employees are providing customers with factual information and not simply telling them what they want to hear to make a sale (DePaulo & DePaulo, 1989; Koslow, 2000). The present research therefore examined the extent to which nonverbal appearance-based communicator cues signaling dominance (i.e., clothing color and fWHR) influenced the perceived accuracy of information delivered by communicators.

The majority of research examining the factors that influence consumer judgments has assessed the role of store design, advertising, branding, product appearance, and internet marketing (Hanss, Böhm, & Pfister, 2012; Labrecque, Patrick, & Milne, 2013; van Rompay, de Vries, Bontekoe, & Tanja-Dijkstra, 2012). Indeed, researchers have focused primarily on understanding

Psychology and Marketing, Vol. 31(7): 539–548 (July 2014)
View this article online at wileyonlinelibrary.com/journal/mar
© 2014 Wiley Periodicals, Inc. DOI: 10.1002/mar.20715

the extent to which factors such as store layout, brand logo shape, and advertisement appearance influence consumers' evaluations of products and intentions to purchase them (Labrecque & Milne, 2012; Meyers-Levy & Peracchio, 1995; van Rompay, Tanja-Dijkstra, Verhoeven, & van Es, 2012). There is only very limited research, in comparison, examining the perceptions that consumers form of retail employees and the implications of these perceptions within the retail environment. Furthermore, when researchers have examined these perceptions, they have generally focused on assessing the extent to which characteristics of the retail environment (e.g., number of retail employees present in a store) affect expectations about service quality rather than on assessing the impressions that consumers form of individual retail employees based on nonverbal cues (Baker, Parasuraman, Grewal, & Voss, 2002). Indeed, although there is some research examining the role of consumers' nonverbal cues in the retail environment (Puccinelli, 2006; Puccinelli, Deshpande, & Isen, 2007; Puccinelli, Motyka, & Grewal, 2010), the impact of nonverbal cues displayed by retail employees remains understudied.

In one notable exception, researchers examined the influence of nonverbal cues displayed by a salesperson on perceivers' impressions of the salesperson's traits. Results revealed that eye gaze, speech hesitations, and type of attire (i.e., casual vs. formal) influenced the impressions that perceivers formed of the salesperson's tactfulness, professionalism, and empathy (Leigh & Summers, 2002). In a separate study, researchers examined how perceivers' initial impressions of financial consultants that were formed based on viewing consultants' nonverbal cues affected subsequent judgments of these consultants. When nonverbal cues elicited more favorable initial judgments, perceivers subsequently viewed the consultants more positively (Naylor, 2007). Although this research provides some insight into nonverbal appearance-based cues that influence consumers' impressions of retail employees, it does not reveal the implications of these cues for consumers' perceptions of retail communication.

The impressions that individuals form of others based on nonverbal appearance-based cues can have a variety of important implications. Indeed, perceivers rapidly form reliable impressions of individuals based on minimal information (Ambady & Rosenthal, 1992; Fowler, Lilienfeld, & Patrick, 2009; Rule, Ambady, Adams, & Macrae, 2008) and these impressions predict a variety of real-world outcomes, such as corporate profits, hiring decisions, and political success (Rule & Ambady, 2010; Zebrowitz, 1997). Specifically, judgments of CEOs' personality traits that are based only on viewing photos of the CEOs' faces can predict corporate profits (Rule & Ambady, 2008). Similarly, appearance-based cues, such as physical attractiveness and facial dominance, can predict hiring decisions and occupational status (Little & Roberts, 2012). These findings suggest that the impressions that perceivers form based on the nonverbal appearance-based cues that individuals display might have important implications for the outcomes that these individuals experience.

In the communication domain, nonverbal appearance-based cues signaling a communicator's dominance and power may play a critical role in influencing the communicator's persuasiveness. Although military insignia and clerical vestments can serve as perceptually obvious nonverbal appearance-based cues that signal dominance (Saunders, 2003; U.S. Department of Defense, 2013), researchers have also identified more subtle dominance-related cues. Indeed, researchers have found that red coloration on both human and nonhuman primates serves as a signal of dominance, power, and authority: animals with greater red coloration are perceived as more dominant (Setchell & Wickings, 2005) and humans wearing red or associated with red are viewed as more dominant (Elliot et al., 2010; Feltman & Elliot, 2011; Khan, Levine, Dobson, & Kralik, 2011; Stephen, Oldham, Perrett, & Barton, 2012; Ten Velden et al., 2012). Even red shapes are perceived to be more dominant than shapes of other hues (Little & Hill, 2007). Although researchers have previously examined the influence of red coloration in the retail context, they have focused on the implications of red-colored inanimate objects (e.g., the influence of red websites on price-consciousness, the influence of retail prices printed in red font on the perceived value of a deal, the appropriateness of red for different types of products, and the influence of red logos on brand personality; Hanss et al., 2012; Labrecque & Milne, 2012; Mandel & Johnson, 2002; Puccinelli, Chandrashekaran, Grewal, & Suri, 2013). The impact of red coloration of retail employees therefore remains unknown.

Similar to red coloration, evidence indicates that fWHR may also serve as a signal of dominance. Perceivers judge individuals with a high fWHR as more dominant than individuals with a low fWHR (Geniole et al., 2012). Thus, evidence indicates that nonverbal appearance-based cues as subtle as clothing color and fWHR can influence perceivers' judgments. To the extent that individuals find messages delivered by dominant and influential communicators to be more persuasive (Smith, De Houwer, & Nosek, 2012; Tormala, Briñol, & Petty, 2006), individuals may respond more favorably to retail communication that it is delivered by a retail employee displaying nonverbal dominance-related cues. In the present research, this possibility was examined directly.

Four studies tested the impact of nonverbal appearance-based dominance cues displayed by a communicator on the perceived accuracy of the information that the communicator provides. Study 1a assessed the extent to which perceivers judged the information provided by a communicator to be more accurate when the communicator was wearing a red versus white sweater. Studies 1b and 1c assessed the degree to which the effect observed in Study 1a would extend to contexts in which the amount of red associated with the communicator was reduced. This was accomplished by

Figure 1. Communicator photos used in the red sweater (left panel) and white sweater (right panel) conditions in Study 1a.

manipulating tie color rather than sweater color. In addition, the impact of the color red was compared to a chromatic (i.e., blue) rather than an achromatic (i.e., white) hue. Last, Study 2 assessed the influence of nonverbal dominance cues on perceptions of information accuracy using a different cue: fWHR. Across the studies reported below, it was predicted that perceivers would judge information to be more accurate when it was delivered by a communicator displaying nonverbal dominance cues (i.e., communicators wearing red or possessing a high fWHR).

STUDY 1

Given that the color red is associated with dominance and power (Elliot et al., 2010; Stephen et al., 2012; Ten Velden et al., 2012), and that messages delivered by individuals who seem more influential tend to be more persuasive (Smith et al., 2012; Tormala et al., 2006), individuals may find messages to be more compelling when the person serving as the source of the message is wearing red. Studies 1a–1c examined this directly.

Study 1a

Participants in Study 1a read a message that was delivered by an individual who was wearing a red or white sweater. They then rated the extent to which they perceived the information in the message to be accurate. It was predicted that participants would perceive the information described in the message to be more accurate when the message was delivered by the communicator wearing the red versus white sweater.

Method

Participants. Participants were 56 male and 38 female undergraduate students (M_{age} = 22.07 years, SD = 3.85) who received partial course credit for participating.

Procedure. Participants first read a transcript of a speech about the potential consequences of water fluoridation and the importance of drinking nonfluoridated water (e.g., "water fluoridation can be linked to a variety of consequences: tooth discoloration, physical health problems, psychological impairments, and economic costs"), a message that resembled appeals that are delivered by retailers who sell water filtration and purification systems (e.g., Aquasafe Systems, 2013). The color associated with the communicator was manipulated by providing participants with a photo of the ostensible communicator wearing either a red or white sweater (see Figure 1). The photos were created by taking a photograph of a White male adult wearing either a red sweater or the same sweater in white. Because the target was seated at a desk, only his upper body was visible. The photos were then resized to 7.2 cm × 8.5 cm and embedded in the message in such a manner that the photo was always visible to participants while they were reading the message.

Participants were randomly assigned to read the message delivered by the communicator wearing either the red sweater or the white sweater. They then rated the extent to which they perceived the information contained within the message to be accurate ("The information in the speech was accurate," "I believe the information presented in the speech to be true"; inter-item correlation r = 0.77) along a 7-point scale anchored at 1 (*Strongly disagree*) and 7 (*Strongly agree*). Past research demonstrated that the perceived likeability of a communicator can influence reactions to a message delivered by the communicator (Ziegler et al., 2002). Thus, to verify that communicator clothing color rather than likeability influenced perceptions of information accuracy, participants also rated whether the communicator was likeable along a 7-point scale anchored at 1 (*Strongly disagree*) and 7 (*Strongly agree*).

Results and Discussion

Source Trait Ratings. An independent samples t-test revealed that participants did not differ in the extent to which they perceived the communicator wearing red (M = 4.43, SD = .89) versus white (M = 4.44, SD = 1.01) to be likeable, $t(92) = 0.01$, $p = 0.99$, $r = 0.001$.

Perceived Information Accuracy. An independent samples *t*-test revealed that participants perceived the information in the message to be significantly more accurate when it was presented by the communicator wearing red ($M = 4.63$, $SD = 1.38$) versus white ($M = 4.08$, $SD = 1.31$), $t(92) = 1.98$, $p = 0.05$, $r = 0.20$.[1]

Thus, Study 1a provided evidence that nonverbal dominance cues displayed by the source of a persuasive message can influence perceivers' judgments of that message. Participants in the present study perceived the information contained within the message to be more accurate when the message was delivered by a communicator wearing red versus white. This is notable given that the content of the message was the same in both conditions. The communicator's clothing color could not, therefore, have had any impact on the actual accuracy of the information. Nonetheless, participants differed in their judgments of information accuracy depending on the color of the communicator's clothing.

Study 1b

Studies 1b and 1c extended the results of Study 1a by manipulating the color of the communicator's tie. This made it possible to test the extent to which even minimal amounts of red influence judgments of information accuracy. It also made it possible to demonstrate that not only casual (e.g., sweater) but also more formal (e.g., tie) red attire can influence the perceived accuracy of information delivered by an individual, such as a retail employee. One may argue that, to the extent that red is a signal of dominance, it may have a more limited impact on perceivers' judgments when other appearance-based cues that signal dominance (e.g., formal clothing, such as a suit) are present versus absent. That is, if communicators already seem highly dominant because they are displaying other dominance-related cues, the additional influence of red clothing may be very limited. Past research has demonstrated, however, that the color red can influence perceivers' judgments about targets in contexts in which the targets are also displaying dominance-related behavioral cues (e.g., competitive sports behaviors; Hill & Barton, 2005). Thus, red clothing may have an influence on perceivers' judgments even in contexts in which other dominance-related nonverbal cues (e.g., formal clothing) are present. Studies 1b and 1c examined this possibility.

These studies also served as opportunities to examine the degree to which the color red enhances perceptions of information accuracy relative not only to an achromatic hue (i.e., white) but also to a chromatic hue (i.e., blue). In doing so, it was possible to demonstrate that the influence of red on perceived information accuracy is not unique to comparisons of red and white but, rather, generalizes to comparisons of red with other hues. Thus, in the present studies, the color of the communicator's tie was manipulated to be either red or blue—a comparison hue commonly used in studies examining the influence of red on perceivers' judgments (Khan et al., 2011; Labrecque & Milne, 2012; Mehta & Zhu, 2009; Ten Velden et al., 2012).

Participants in Study 1b completed the same procedure used in Study 1a with the exception that the communicator depicted in the photo was wearing a suit and either a red or blue tie. It was predicted that participants would perceive the information in the message to be more accurate when it was delivered by the communicator wearing a red versus blue tie.

Method

Participants were 48 male and 103 female undergraduate students ($M_{age} = 19.19$ years, $SD = 6.43$) who received partial course credit. They completed the same procedure used in Study 1a with the exception that the communicator depicted in the photos was wearing a suit and tie rather than a casual sweater. The clothing color of the communicator was manipulated by varying the color of the communicator's tie (i.e., red vs. blue). With the exception of these changes to the communicator's clothing, the photos were the same as those used in Study 1a (see Figure 2). After reading the message, participants completed the same information accuracy measure (inter-item correlation $r = 0.69$) and communicator likeability rating used in Study 1a.

Results and Discussion

Source Trait Ratings. Participants did not differ in the extent to which they perceived the communicator wearing the red ($M = 4.24$, $SD = .91$) versus blue ($M = 4.24$, $SD = 1.02$) tie to be likeable, $t(149) = 0.04$, $p = 0.97$, $r = 0.003$.

Perceived Information Accuracy. Participants perceived the information presented in the message to be significantly more accurate when it was presented by the communicator wearing a red ($M = 4.63$, $SD = .81$) versus blue ($M = 4.34$, $SD = 0.75$) tie: $t(149) = 2.25$, $p = 0.03$, $r = 0.18$.

The present results therefore illustrate that red coloration can influence perceivers' judgments even in comparison to chromatic hues (e.g., blue). Thus, it is not simply the case that red coloration increases perceptions of information accuracy relative only to white coloration. Red coloration may therefore provide unique benefits in retail communication. In addition, the current findings suggest that red retail attire may influence consumers' judgments even when the amount of red visible to consumers is minimal and when other nonverbal cues (e.g., formal attire) that may signal dominance are also present. Thus, red attire may be influential in both casual and more formal contexts.

[1] Effects did not differ by participant gender in any of the studies reported.

Figure 2. Communicator photos used in the red tie (left panel) and blue tie (right panel) conditions in Studies 1b and 1c.

Study 1c

Past research has indicated that red coloration influences judgments of attractiveness (Elliot et al., 2010; Elliot & Maier, 2013; Stephen et al., 2012) and that the attractiveness of a communicator can influence persuasion (Davies, Goetz, & Shackelford, 2008; Kahle & Homer, 1985; Ziegler, von Schwichow, & Diehl, 2005). Thus, in Study 1c, the perceived attractiveness of the communicator was measured to verify that observed color effects were not simply due to differences in the attractiveness of the communicator produced by manipulating the color of the communicator's clothing.

Method

Participants were 21 male and 33 female undergraduate students ($M_{age} = 19.26$ years, $SD = 2.19$) who received partial course credit. They completed the same procedure used in Study 1b. At the very end of the study, however, participants rated whether the communicator was physically attractive along a 7-point scale anchored at 1 (*Strongly disagree*) and 7 (*Strongly agree*).

Results and Discussion

Source Trait Ratings. Different from Study 1b, participants in Study 1c perceived the communicator wearing the red tie to be significantly less likeable ($M_{Red} = 4.00$, $SD = 0.98$; $M_{Blue} = 4.57$, $SD = 1.00$; $t(52) = 2.12$, $p = 0.04$, $r = 0.28$) and less attractive ($M_{Red} = 3.31$, $SD = 1.09$; $M_{Blue} = 3.93$, $SD = 1.22$; $t(52) = 1.97$, $p = 0.05$, $r = 0.26$) than the communicator wearing the blue tie. Meta-analytic aggregation of the effects for likeability across Studies 1b and 1c showed a small effect, particularly when considering the differences in sample size: $\bar{r} = 0.08$.

Perceived Information Accuracy. Given that participants perceived the red tie and blue tie communicators to differ in likeability and physical attractiveness, an analysis of covariance was conducted to examine the effect of tie color on perceived information accuracy. Controlling for the influence of perceived communicator likeability and attractiveness, participants perceived the information presented in the message to be significantly more accurate when it was presented by the communicator wearing the red ($M = 4.83$, $SD = 1.19$) versus blue ($M = 4.03$, $SD = 1.19$) tie: $F(1,50) = 5.83$, $p = 0.02$, $r = 0.32$.[2,3]

The results of Study 1c therefore provided converging evidence that red-colored clothing can influence the perceived accuracy of information delivered by a communicator, relative to other chromatic hues. Furthermore, Study 1c demonstrated that the effect of red coloration on perceived information accuracy was not simply due to differences in the perceived attractiveness of the communicator. Although past research showed that red coloration enhances judgments of a target's attractiveness relative to other hues (Elliot et al., 2010; Elliot & Maier, 2013), participants in Study 1c perceived the communicator wearing the red versus blue tie to be less attractive. Red coloration may be most likely to increase perceived attractiveness in romantic contexts (Elliot & Niesta, 2008; Meier, D'Agostino, Elliot, Maier, & Wilkowski, 2012). In other contexts, including the retail environment, red coloration may reduce or have no impact on perceptions of attractiveness.

STUDY 2

Studies 1a–1c provided evidence that messages are perceived to be more accurate when delivered by a communicator wearing red. These findings have important implications for retail contexts because clothing color is a

[2] In Study 1c, participants were screened for red-green and blue-yellow color blindness. None of the participants indicated that they possessed either forms of color blindness. Thus, all participants were included in analyses.

[3] In Studies 1a, 1b, and 2, the same pattern of results was observed when controlling for communicator likeability (Studies 1a, 1b, and 2) and attractiveness (Study 2) in analyses of perceived information accuracy.

highly mutable nonverbal appearance-based characteristic. Retailers can manipulate the clothing color of employees relatively easily to enhance perceptions of information accuracy in in-store communication. It is also important, however, for retailers to be aware of more stable nonverbal dominance cues that may influence perceptions of information accuracy in retail contexts. Study 2, therefore, examined the influence of a relatively static nonverbal dominance cue: fWHR (Geniole et al., 2012). If nonverbal dominance cues influence perceptions of information accuracy, perceivers should judge information to be more accurate when communicators display these cues, regardless of the specific type of cue (e.g., fWHR vs. red coloration) displayed.

Participants in Study 2 completed the same procedure used in Study 1c with one key exception: the photo depicted the white sweater communicator from Study 1a whose face had been manipulated to produce either a high or low fWHR. It was predicted that participants would perceive the information presented in the communicator's message to be more accurate when it was ostensibly delivered by the communicator with a high versus low fWHR.

Method

Participants. Participants were 18 male and 47 female undergraduate students (M_{age} = 21.34 years, SD = 4.22) who received partial course credit.

Procedure. Participants completed the same procedure used in Study 1c with the exception that the communicator depicted in the photo had either a high (2.3) or low (1.9) fWHR. These photos were created using the software program FaceFilter to manipulate the fWHR of the target depicted in the white sweater photo used in Study 1a (see Figure 3). The fWHR of the communicator depicted in each of the two photos was measured based on methods used in previous research (Carré & McCormick, 2008). Specifically, facial height was assessed by measuring the distance between the top of the eyelids and the top of the upper lip. Facial width was assessed by measuring the maximum distance from the outermost right and left points of the face. Because the manipulation used in this study did not involve varying aspects of the communicator's clothing, the photos were cropped such that the target was visible from only the mid-torso to the top of the head. Once embedded within the message, these photos were 6.8 cm × 6.8 cm in size.

Figure 3. Communicator photos used in the high (left panel) and low (right panel) facial width-to-height ratio conditions in Study 2.

After reading the message, participants completed the same information accuracy measure (inter-item correlation r = 0.86), communicator likeability rating, and communicator attractiveness rating used in Study 1c.

Results

Source Trait Ratings. Participants did not differ in the extent to which they perceived the communicator with the high (M = 4.09, SD = 1.08) versus low (M = 4.39, SD = 1.02) fWHR to be likeable, $t(63) = .24$, p = 0.81, r = 0.03. Similarly, participants did not differ in the extent to which they perceived the communicator with the high (M = 3.50, SD = 1.40) versus low (M = 3.42, SD = 1.31) fWHR to be attractive, $t(63) = 1.14$, $p = 0.26$, $r = 0.14$.

Perceived Information Accuracy. Participants perceived the information presented in the message to be significantly more accurate when it was presented by the communicator with a high (M = 4.37, SD = 1.39) versus low (M = 3.55, SD = 1.47) fWHR, $t(63) = 2.31$, $p = 0.02$, $r = 0.28$.

Discussion

The results of Study 2 demonstrated that fWHR influenced judgments of information accuracy. Participants perceived the information provided in the message to be more accurate when the message was ostensibly delivered by a communicator with a high versus low fWHR. These findings illustrate that the influence of nonverbal dominance cues on persuasion is not specific to clothing color or nonverbal cues that are mutable. fWHR, a more stable nonverbal dominance cue, also influenced perceivers' judgments of information delivered by the communicator.

The data from Study 2 cannot establish that fWHR influenced judgments of information accuracy because it influenced perceptions of the communicator's dominance. Ratings obtained from a separate group of participants (N = 52), however, demonstrated that the communicator with the high fWHR was perceived to be more dominant than the communicator with the low fWHR, $t(50) = 2.13, p = 0.04, r = 0.29$. Thus, the present research provides evidence that nonverbal cues that signal dominance can influence judgments of persuasive communication. In future work, researchers should identify the specific mechanisms underlying this effect more directly.

GENERAL DISCUSSION

The present findings demonstrated that nonverbal appearance-based dominance cues displayed by communicators influenced the perceived accuracy of information delivered. These findings contribute to research on consumer judgments, nonverbal cues, and persuasive communication in three key ways. First, whereas researchers have previously examined the influence of red coloration and fWHR on judgments of targets displaying these cues (Carré & McCormick, 2008; Elliot et al., 2010; Geniole et al., 2012; Ten Velden et al., 2012), the present research demonstrated that these cues also influence judgments of communication delivered by these sources. Second, whereas past consumer research has assessed the influence of red logos, signs, and websites on consumer perceptions (Labrecque & Milne, 2012; Mandel & Johnson, 2002; Puccinelli et al., 2013), the present findings suggest that retail employers who wear red clothing may also influence consumer judgments. Third, although research on nonverbal cues in retail contexts has generally focused on consumer cues (Puccinelli et al., 2007; Puccinelli et al., 2010), the present research indicates that it may also be important to consider the role of nonverbal cues displayed by employees.

The present findings also have important practical applications for retail communication. Understanding factors that influence the perceived accuracy of information delivered by retail employees is critical, given that consumers may be particularly skeptical about information accuracy in retail contexts (DePaulo & DePaulo, 1989; Koslow, 2000). The current results suggest that employees with wide versus narrow faces may generally be more persuasive. Nonetheless, retailers can increase the perceived accuracy of in-store communication by simply having employees wear red clothing. Individuals are typically unaware of the influence of nonverbal appearance-based cues on their judgments (Elliot et al., 2010; Elliot & Maier, 2007). Thus, although consumers may resist highly blatant attempts at persuasion (Guo & Main, 2012), the subtlety of nonverbal dominance cues may enhance the persuasiveness of retail employees while limiting suspicion and defensiveness.

The color red has distinct meanings across contexts. Indeed, red is associated with passion and sexuality (Elliot et al., 2010; Elliot & Niesta, 2008), but also with danger, illness, and failure (Mehta & Zhu, 2009; Moller, Elliot, & Maier, 2009). Thus, red may activate romance-related concerns in relationship contexts but activate danger-related concerns in failure and risk contexts (Meier et al., 2012). Red-colored retail signs may therefore optimize consumers' product judgments if they are congruent with the goals of the products they advertise (e.g., products related to seeking romance or avoiding risks). In the context of persuasive communication delivered by retail employees, however, red coloration may also signal dominance. Indeed, red is associated with dominance in many competitive contexts (Hill & Barton, 2005; Ten Velden et al., 2012), contexts that are not unlike retail environments in which employees often forcefully persuade consumers to purchase a product (Mallin & Pullins, 2009). This association between red and dominance may be useful for increasing favorable product evaluations among consumers with diverse shopping motives (Arnold & Reynolds, 2012; Ganesh, Reynolds, Luckett, & Pomirleanu, 2010). If red coloration enhances employees' dominance and therefore their persuasiveness, consumers may form favorable evaluations of products promoted by employees even if these products do not have any existing association with red.

Consistent with past research linking red coloration to dominance (Elliot et al., 2010; Stephen et al., 2012), perceivers in the present research judged information to be more accurate when the communicator wore red. Although the effects observed in Studies 1a–1c may instead have been obtained because the color red was consistent with the message's risk-related content (i.e., the consequences of water fluoridation and the need to drink nonfluoridated water; Gerend & Sias, 2009), these effects were replicated with fWHR, another nonverbal dominance cue (Geniole et al., 2012). Because there is no clear association between fWHR and risks, it is less likely that a congruence between fWHR and message content accounts for the results of Study 2. The present findings are therefore more consistent with the argument that red coloration influenced participants' judgments due to its association with dominance.

Because influential communicators tend to be more persuasive (Smith et al., 2012; Tormala et al., 2006), it is argued that communicators in the present research who displayed nonverbal dominance cues made participants perceive the information they delivered to be more accurate. It is possible, however, that perceivers only publicly expressed greater belief in the accuracy of the message when the communicator displayed dominance (Maass & Clark, 1984). They may, for example, have been mildly fearful of the communicator, and may have therefore felt compelled to agree with him. In either case, nonverbal dominance cues may ultimately increase consumers' purchasing behaviors. Indeed, given that individuals strive to maintain consistency between their behaviors and attitudes (Festinger, 1962), consumers who publicly comply with a dominant communicator may feel motivated to purchase a product. In future research, it will be important to examine whether nonverbal dominance cues elicit public compliance versus private acceptance, and the degree to which these processes ultimately affect purchasing behavior.

Given the implications of nonverbal dominance cues for consumer judgments, it is important to examine these cues further. The present color studies were conducted with the goal of increasing ecological validity by using actual clothing items that retail employees may wear, rather than manipulating color electronically.

This limited the ability to equate the red and blue ties on brightness and chroma. Nonetheless, the present findings were consistent with past research that did control for brightness and chroma (Elliot et al., 2010; Feltman & Elliot, 2011), and were replicated with a different nonverbal dominance cue (Study 2). This suggests that the observed color effects were due to differences in hue rather than brightness or chroma. In future work, however, researchers should complement these more ecologically valid studies with studies that control for brightness and chroma. It would also be beneficial to examine the influence of these nonverbal dominance cues using female communicators. Indeed, although the present research examined the influence of nonverbal dominance cues using male communicators only, red coloration and fWHR may also signal dominance in women (Feltman & Elliot, 2011; Geniole et al., 2012).

Consumers may fail to remember the color of the tie worn by the retail employee who recently sold them a new car or handbag. The present findings suggest, however, that such nonverbal appearance-based cues can have an important impact on consumers' perceptions in retail contexts. Thus, although explicit information undoubtedly affects consumers' judgments and behaviors in many circumstances, consumers may also be under the influence of more subtle cues in the retail environment.

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This research was supported by a Social Sciences and Humanities Research Council grant (#104410) to N.O.R. We thank Sanford DeVoe for assistance in creating the photo stimuli.

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