Environmental communications often contain assertive commands, even though research in consumer behavior, psycholinguistics, and communications has repeatedly shown that gentler phrasing is more effective when seeking consumer compliance. This article shows that the persuasiveness of assertive language depends on the perceived importance of the issue at hand: Recipients respond better to pushy requests in domains that they view as important, but they need more suggestive appeals when they lack initial conviction. The authors examine this effect in three laboratory studies and one field experiment using Google AdWords. Their findings refer to various environmental contexts (i.e., economizing water, recycling plastic containers, reducing air and sea pollution). The key implication of these findings is that issue importance needs to be carefully assessed (or affected) before the language of effective environmental campaigns can be selected.

**Keywords:** persuasion, assertive language, issue importance, environmental marketing, demarketing, social marketing

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time, inconvenience), have been found to elevate compliance with the request (Francik and Clark 1985; Paulson and Roloff 1997). Green requests should be particularly susceptible to nonconformity because consumers are likely to perceive a conflict between responsible behavior demands and their private goals (Meneses and Palacio 2007; Wiener and Doescher 1991).

This background leads us to raise specific questions with respect to the phrasing of environmental (de-)marketing messages. What phrasings can most effectively persuade consumers to sacrifice some personal freedom and engage in proenvironmental or responsible behavior? Why do we observe near-ubiquitous use of assertive language in green campaigns despite ample evidence that such language might be upsetting and reduce the likelihood of consumer compliance? Should environmentalists change the wordings of their advertising campaigns and rely more on subtler, less assertive language?

In this article, we highlight the role of a key variable that should guide the degree of assertiveness in environmental campaigns: perceived importance (of the issue at hand, in the eye of the target audience). Our key proposition is that the negative effect of message assertiveness on consumer compliance (e.g., Lord 1994; Shrum, Lowrey, and McCarty 1994) can be reduced or even reversed when the target audience perceives the issue at hand as important. Our intuition is that when recipients perceive an issue as important, they will recognize assertive messages as encouragement, rather than coercion, and might perceive a polite invitation as failing to recognize their commitment. In contrast, when perceived issue importance is low, an assertive message seems to deny the specific circumstances of the consumer and thus might lower compliance.

We focus on the perceived importance of the underlying environmental issues, not on attitudes and opinions specific to the advocated behaviors (e.g., whether public transportation saves energy, whether signing a petition makes a difference). Our approach is probably most applicable to environmental requests that consumers view as legitimate and efforts and opportunity costs that compliance would imply. Our findings suggest that if an issue is not recognized as important, recipients will perceive an assertive environmental request as off-putting, while the same assertive request might push into compliance a consumer already persuaded by a cause.

We examine our prediction in three laboratory experiments and one field study. We first address the construct of issue importance as a possible psychological mechanism underlying the effect. In Study 1, we show that when the perceived importance of the underlying environmental issue is elevated (e.g., by watching an environmental video clip), consumers display greater compliance intention with an assertive message than with a less assertive message. Next, we conduct two studies to replicate and generalize this prediction: Study 2a holds the participants constant and varies the environmental domain (important vs. nonimportant issue), and Study 2b holds the environmental domain constant and examines the responses of audience segments of varying environmental sensitivity. Finally, we report the findings of a field experiment that further demonstrates the practical value of this research (Study 3). In this experiment, we employ assertive and nonassertive messages using Google’s AdWords web advertising system. We measure compliance with assertively versus nonassertively phrased sponsored links that recruit people to sign a petition against sea pollution. We measure perceived importance by examining the search term people employ, assuming, for example, that perceived importance is stronger for people who “google” the phrase “sea pollution” than for those who search the phrase “knitting machines.”

Conceptual Development and Key Prediction

Perceived Issue Importance and Compliance

Research in the fields of interpersonal, environmental, and social communication has found that the more people perceive the cause as deserving or important, the more they comply with a message promoting that cause (Clark 1993; Clark 1998; Cleveland, Kalamas, and Laroche 2005), especially if the decision to engage in the behavior is perceived as resulting from an autonomous choice (Zhang et al. 2011). Marshall et al. (2008) show that issue involvement is a predictor of compliance with persuasive messages calling for healthful behaviors related to sunscreen use, alcohol consumption, and nutrition. Cornelissen et al. (2007) show that environmental compliance can be increased by cueing common environmentally responsible behaviors, presumably in part because compliance increases consumers’ perceived importance of such behaviors. Various field and lab studies further confirm that compliance with messages encouraging environmentally responsible behavior increases when the behavior is linked to important goals of the consumer (Goldstein, Cialdini, and Griskevicius 2008; Granzin and Olsen 1991; Grinstein and Nisan 2009).

Perceived Issue Importance, Assertive Language, and Compliance

The preceding literature suggests that when an environmental issue is perceived as important, compliance with messages supporting this issue is more likely in general. Our key idea is that perceived issue importance also affects linguistic expectations. Assertiveness may support notions of perceived urgency and mission, which issue importance entails. Because of the fit of message language to language expectations, assertive requests should be more persuasive when the recipient also perceives the issue as important (Burgoon, Hunsacker, and Dawson 1994). In research on compliance with messages promoting sunscreen usage, Buller, Borland, and Burgoon (1998) find that the influence of various messages varies by stage of progression to action. Fazio (1986, 1995) argues that assertive language is more likely to be used in cases in which it is in line with already-formed attitudes. In contrast, weak and polite requests in this context might be considered irritating (or “too polite”; Lakoff and Sachioko 2005; Tsuzuki, Miamoto, and Zhang 1999). In turn, this may reduce compliance because nonassertive language is not in tune with the issue’s perceived importance.

The opposite is likely to happen when the issue at hand is not perceived as highly important. In this case, assertively phrased requests are not expected and may result in lower compliance because of their excessive forcefulness. It is
then the nonassertive, more polite phrasing that may be more persuasive. Less assertive language (e.g., “Please be considerate and try to print less”) is more likely to stimulate unconvinced consumers because it recognizes the recipient’s attitudinal resistance.

This leads us to the following hypothesis:

\[ H_1: \] Compliance with an assertive (vs. nonassertive) message promoting a proenvironmental behavior is greater for a consumer who perceives the environmental issue as important. Conversely, when the environmental issue is perceived as less important, compliance with a nonassertive (vs. an assertive) message becomes more likely.

**Studies**

**Study 1: The Moderating Role of Perceived Importance in the Effect of Message Assertiveness on Compliance**

In this study, we manipulated issue importance by showing an environmental clip, which was intended to temporarily elevate the perceived importance of environmental issues. Research has shown that the importance of a certain issue can temporarily be elevated as a result of activities such as watching a movie or an advertisement (Gross and Levenson 1995; Pechmann et al. 2003; Zhao and Pechmann 2007).

**Procedure.** We designed a 2 (high/low issue importance) × 2 (assertive/nonassertive message) between-subjects experiment. We showed a short (two minutes) clip about air pollution (see http://www.youtube.com/watch?v=bz2eZkoOZqs) to a group of undergraduate students (N = 71) and then compared their reactions to an assertive and a nonassertive message encouraging the use of public transportation as a means to reduce air pollution with the reactions of a similar group that had not seen the clip (N = 75). Participants were randomly assigned to one of the two conditions.

All participants first responded to a questionnaire that measured general environmental involvement, based on the Consumer Involvement Scale (Mittal 1995). The scale is a five-point semantic differential scale that consists of five adjectives: “not important/important,” “not essential/essential,” “not valuable/valueable,” “not interesting/interesting,” and “not significant/significant.” Participants in the clip condition then saw the clip, after which they completed a scale of four items pertaining to issue importance. We developed the items for the purpose of this work, based on existing measures of involvement and issue importance (Gershkoff 2005; Nadeau, Niemi, and Amato 1995). The four items read: “It is important for me to help reduce air pollution,” “I think a lot about ways to help reduce air pollution,” “Helping reduce air pollution is not at the top of my priorities list” (reverse coded), and “I try to help reduce air pollution.” Participants in the no-clip condition filled out the issue importance scale immediately after the Consumer Involvement Scale. After this, all participants were exposed to the environmental message. The assertive environmental message read: “Reducing air pollution: everyone must use more public transportation!” The nonassertive message read: “Reducing air pollution: everyone could use more public transportation.” After reading the message, the participants answered four compliance intention items adapted from Chandran and Morwitz (2005). The items were “Following the ad, how plausible is it/how certain is it/how sure are you/what are the chances that you will use public transportation more?”

**Results.** Reliability for the perceived importance measure was α = .88, reliability for the air pollution involvement scale was α = .89, and reliability for the compliance intention scale was α = .97. We found a significant interaction for the effect of assertiveness and perceived environmental importance on compliance with an environmental message (F(1, 138) = 11.84, p < .001; see Figure 1). Participants who saw the clip were more ready to comply with the message after reading an assertive message rather than a nonassertive message (Massertive = 2.89, Mnonassertive = 1.82; F(1, 138) = 6.54, p < .013). In contrast, among participants who had not seen the clip, compliance with the assertive message was lower than with the nonassertive message (Massertive = 1.87, Mnonassertive = 2.55; F(1, 138) = 5.17, p < .026).

**Manipulation check.** We used a t-test to compare the means of the experiment and control groups in the degree of general environmental involvement (which was filled out before the manipulation by both groups) and the degree of importance of air pollution (which was filled out by the experimental group after seeing the clip). Although we found no significant differences between the groups in general environmental concern (Mclip = 4.94, Mno clip = 4.92; t = .13, p > .10), the group that saw the clip showed significantly greater perceived importance of the air pollution issue (Mclip = 5.86, Mno clip = 4.90; t = 4.0, p < .001).

**Importance mediation.** Bootstrapping tests (Preacher and Hayes 2004, 2008; Zhao, Lynch, and Chen 2010) revealed that the effect of seeing an environmental clip on intentions to use public transportation was mediated by perceived importance of air pollution (a × b = .22, 95% confidence interval [CI] = .063 to .54). A multiple regression analysis

**FIGURE 1**

**Study 1: The Effect of Perceived Issue Importance on Compliance with (Non)Assertive Environmental Messages**

<table>
<thead>
<tr>
<th>Compliance Intention</th>
<th>Clip</th>
<th>No Clip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertive</td>
<td>2.89</td>
<td>1.82</td>
</tr>
<tr>
<td>Nonassertive</td>
<td>1.87</td>
<td>2.55</td>
</tr>
</tbody>
</table>

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revealed a strong significant effect of perceived importance on intentions to use public transportation ($b = 2.1$, $t = 2.5$, $p < .014$, 95% CI = .06 to .53), after controlling for condition (clip/no clip). The effect of condition (clip/no clip) on intentions to use public transportation was insignificant ($c = .06$, $t = .68$, $p = .50$, 95% CI = -.33 to .68), suggesting indirect-only mediation (Zhao, Lynch, and Chen 2010).

Discussion. In accordance with our hypothesis, we find that the more consumers perceived the environmental issue at hand as important, the more they were inclined to comply with an assertive message than a nonassertive message. Consumers who perceived the environmental issue as hand as less important were more affected by a nonassertive message than an assertive message. The following two studies provide additional support for our hypothesis in (perhaps more practically relevant) contexts in which we measure instead of experimentally manipulate variations in perceived importance.

Study 2a: A Test Involving Environmental Contexts of Varying Importance

In this study, we further examined our key prediction by studying how within a given group of participants, reaction to assertive language differs in environmental contexts of varying importance. The study took place in Israel, and we compared the context of economizing soap (and the associated risk of soil pollution) with the context of economizing water. The rationale for choosing these environmental contexts is that while water deficit is a topic of great awareness and concern in Israeli society (Grinstein and Nisan 2009), soil pollution has not received sufficient governmental and public attention compared with other developing economies (Adam Teva V’din–Israel Union for Environmental Defense 2010). In addition, in a pretest (N = 20), we ensured that economizing water (to fight drought conditions in Israel) was viewed as a more important environmental context than economizing soap (to reduce soil pollution) ($M_{\text{economizing water}} = 6$, $M_{\text{economizing soap}} = 2.2$, $t = 3.71$, $p < .05$). Thus, we created a 2 (assertive/nonassertive message) × 2 (more important/less important environmental context) between-subjects design.

Procedure. Undergraduate students (N = 244) were exposed to a short and simple message, which was either assertive or nonassertive, and encouraged either to economize water or to economize soap while washing dishes. The assertive message read: “While washing dishes, it’s worth economizing water/soap.” The nonassertive message read: “While washing dishes, you must economize water/soap!” After reading the message, participants filled out a questionnaire that measured perceived importance and compliance intention, employing the same measures used as in the previous study.

Results. Reliability for perceived issue importance was $\alpha = .93$, and reliability for compliance intention was $\alpha = .94$. As predicted, we found a significant interaction between environmental context and message type on compliance with environmental messages ($F(1,240) = 37$, $p < .001$; see Figure 2). When messages pertained to water conservation, compliance with an assertive message was higher than compliance with a nonassertive message ($M_{\text{assertive}} = 4.5$, $M_{\text{nonassertive}} = 3$; $F(1,240) = 32$, $p < .001$). However, when messages encouraged soap conservation, compliance with a nonassertive message was higher than compliance with an assertive message ($M_{\text{assertive}} = 2.8$, $M_{\text{nonassertive}} = 3.6$; $F(1,240) = 9$, $p < .001$).

Manipulation check. A t-test showed significant differences between perceived importance of water conservation ($M = 4.8$) and soap conservation ($M = 2.3$; $t = 13$, $p < .001$).

Importance mediation. Bootstrapping tests (Preacher and Hayes 2004, 2008; Zhao, Lynch, and Chen 2010) revealed that the effect of the target behavior (water or soap conservation) on intentions to economize was mediated by perceived importance ($a \times b = .26$, 95% CI = .011 to .57). A multiple regression analysis revealed a strong significant effect of perceived importance on intentions to economize ($b = -.28$, $t = -2.7$, $p < .006$, 95% CI = -.40 to -.06), after controlling for target behavior (water or soap conservation). The effect of target behavior on intentions to economize was insignificant ($c = -.23$, $t = -1.4$, $p = .17$, 95% CI = -1.8 to .30), suggesting indirect-only mediation (Zhao, Lynch, and Chen 2010).

Study 2b: A Test Involving Groups with Varying Perceptions of Environmental Importance

Study 2b aimed to replicate our key prediction by holding the environmental context constant and varying the target audience in terms of sensitivity toward environmental issues. Specifically, we investigated whether a more sensitized population would react differently to assertive messages promoting environment behavior, compared with a population that perceived environmental issues as less important. We used students’ academic affiliation as a proxy for the perceived importance of environmental issues, by comparing a sample of undergraduate students at the faculty for agriculture and environmental studies (N = 55) with
Compliance Intention

We used the same measures as those in Study 2a. Every student received a message that promoted “recycling plastic containers.” The assertive message read: “You must recycle plastic containers.” The nonassertive message read: “It’s worth recycling plastic containers.”

Results. Reliability of issue importance in this study was α = .83, and the reliability of the compliance intention scale was α = .90. As predicted, we found a significant interaction between segment and assertiveness on intention to recycle (F(1, 113) = .44, p < .001). Planned contrasts revealed that for management students, assertive phrasing significantly reduced recycling intentions (Massertive = 2.24, Mnonassertive = 3.45; F(1, 113) = 17.6, p < .001), whereas for environmental studies students, assertive language significantly elevated recycling intentions (Massertive = 4.13, Mnonassertive = 2.36; F(1, 113) = 26, p < .001; see Figure 3). We also found no main effect for assertiveness and a marginally main effect for segment, implying (consistent with our assumption) that students of environmental studies are more ready to recycle than management students (M = 3.2 vs. M = 2.8; F(1, 113) = 3.17, p < .078).

Manipulation check. A t-test showed a significant difference between the segments in the importance of recycling. This finding suggests higher perceived importance of recycling for students of environmental studies (M = 4.67) than for students of management (M = 3.13; t = 7.8, p < .001).

Importance mediation. Bootstrapping tests (Preacher and Hayes 2004, 2008; Zhao, Lynch, and Chen 2010) revealed that the effect of segment (management vs. environmental studies students) on intentions to recycle was mediated by perceived importance (a × b = −.12, 95% CI = −.44 to −.06). A multiple regression analysis revealed a strong significant effect of perceived importance on intentions to recycle (b = −.31, t = 3.5, p < .001, 95% CI = −.22 to −.84), after controlling for segment. The effect of segment on intentions to recycle was reduced but remained significant (c = .76, t = 2.1, p < .02, 95% CI = .12 to .92; c’ = −.32, t = −1.1, p = .28, 95% CI = −.03 to .50), suggesting complementary mediation (Zhao, Lynch, and Chen 2010).

Study 3: A Field Experiment Using Google AdWords

This field study examines, in a real-world setting, the effect of an assertive message on consumers with varying levels of environmental concern. To show not only intentions to comply with an assertive message but also actual compliance, this field experiment encouraged people to take actual environmental action. The reality of the requested action can be essential in measuring the effects of persuasive messages, as prior research has found (e.g., Albarracin, Cohen, and Kumkale 2003). In addition, this field study assessed the independent variable (perceived importance) on the basis of past behavior in a way similar to what marketers might do in real contexts.

Procedure. The study promoted protecting the Mediterranean Sea from pollution by signing a petition published on the website of an environmental nonprofit organization named Zalul. This organization is committed to protecting and maintaining clean and clear water along Israel’s rivers and shorelines (http://www.zalul.org.il).

We published a sponsored link using Google AdWords. Sponsored links in Google appear each time a user types a prespecified search word. For example, when a user types the search word “teddy,” he or she will see near or above the results of his or her search the sponsored link of a company marketing teddy bears that specified this word as a keyword. In the current experiment, we constructed two messages: an assertive and a nonassertive message. The assertive message (originally in Hebrew) read, “You must save the Mediterranean. You must sign a petition to reduce water pollution in the Sea. To sign the petition you have to click http://www.zalul.org.il.” The nonassertive message read, “You could save the Mediterranean. You may sign a petition to reduce water pollution in the Sea. To sign the petition it is possible to click http://www.zalul.org.il.”

We specified two kinds of search keywords: sea-related (e.g., “Mediterranean Sea,” “Mediterranean Sea pollution,” “sea condition”) and general (e.g., “knitting machines,” “news,” “television channel”). Both types of advertisements loaded in a more or less random order in any search that used any of these keywords. Thus, we created a 2 (assertive/nonassertive message) × 2 (sea-related/general keyword) between-subjects design. We expected that people who specifically typed search words pertaining to the sea would perceive sea pollution as a more important issue (at least at the time of the search) than people who typed other general words.

Our key prediction, based on H1, was that people more likely to perceive sea-related issues as important at the time of the search would be more responsive to the assertive
sponsored link to the Zalul petition. Conversely, people typing a general word (who are likely less concerned with sea-related issues at the time of the search) would be more likely to click on the less assertive link.

Results. We collected and analyzed 309 clicks during a seven-week period in January and February 2010. The frequency of appearance of the different messages was not random because the Google AdWords system favors messages that have proved to be more successful, as measured by click-through. Therefore, we could not use the actual number of clicks per advertisement. Consequently, the adequate dependent variable is the average percentage of clicks per advertisement. Figure 4 presents the results. We conducted a chi-square analysis of the difference between average percentage of click-through on the assertive versus the nonassertive link in each of the conditions (sea-related or general). The analysis revealed that, as we predicted, the empirical likelihood of clicking on the assertive message in the “sea-related keyword” condition was higher than the likelihood of clicking the nonassertive message ($\chi^2_{\text{Sea Keywords}} = 6.25$, $p < .012$), while the opposite effect occurred in the “general keyword” condition ($\chi^2_{\text{General Keywords}} = 835.37$, $p < .001$).

Discussion
This article highlights and helps explain the surprising prevalence of assertive environmental messages in the media. Communications in the environmental domains often serve to push into action consumers who already perceive the issue being promoted as important. However, as we have shown, environmental agencies should consider using less assertive language when targeting a general audience of possibly less concerned consumers. Our research used both lab and field evidence to investigate the relationship between perceived issue importance and the persuasiveness of assertive messages.

Existing studies have established a link between perceived importance and environmental behavior, but the relationship between the assertive language of green requests and environmental compliance, and the moderating role of perceived importance, has not been explored thus far. Our main finding, which supports our hypothesis, is that when message receivers perceive an issue as important, they are affected more by assertive than nonassertive phrasing and are more willing to comply with the message. We propose an explanation that is based on psycholinguistic research. It suggests that compliance with and expectations for more assertive language occur when the message is in line with the recipient’s perceived importance of the issue.

In our study of slogans from ThinkSlogans.com, mentioned previously, we also examined assertiveness of social marketing slogans and found that 39% of the slogans for socially desired behaviors (e.g., antidrug, fundraising) were assertive ($N = 185$). Indeed, we would expect a similar effect to the one reported herein to occur in the contexts of donations, encouragement of health-related behavior, and community intervention activity. Namely, when people perceive the outcome as important, they should comply more with messages that encourage donation or engagement in health-related behavior in an assertive manner (i.e., using assertive language) than with nonassertive messages. We expect the reverse to happen in the case of low perceived importance.

Our field experiment involved an innovative methodology, using rates of clicking a Google-sponsored link as a dependent variable. We created a 2 x 2 design using two messages that differed in their assertiveness level and attracted people who were likely to differ on level of perceived issue importance, according to the search words they used. The enormous gap between assertive and nonassertive message clickers in the less important issue condition is explained by the low click rate on an assertive message link in that group (.09%). This result makes sense: When people do not perceive the issue as important, the last thing that will prompt them to respond is an assertive request.

Thus, environmental agencies, which are populated with people who perceive protecting the environment as a highly important issue, should understand that not all consumers are as informed and concerned about the environment. Therefore, the usual assertiveness of environmental messages should be toned down or at least directed at more environmentally concerned populations. For consumers who are less concerned about environmental issues, either less assertive phrasing should be employed or the importance of the issue should be elevated before assertive phrasing is used in more specific green requests.

Research on economic and consumption decision making has found that when people are overwhelmed with the sense of importance of a certain issue, they tend to postpone or even avoid making decisions about it (e.g., Andreou 2008; Ehrich and Irwin 2005; Luce, Bettman, and Payne 1997; Sawers 2005). It is plausible that assertive language, when an issue is perceived as highly important, may help consumers overcome this natural avoidance of decision, because assertive phrasing implies that the action cannot be avoided.

We conducted this research in Israel. It is possible that assertive language has different outcomes in different
cultures. For example, Mills (1993) finds that while Russian speakers preferred either highly assertive or very nonassertively phrased requests, American English speakers preferred intermediate nonassertive requests. Because environmental/social issues constitute a global concern, further research that encompasses the attitudes of different cultural groups to assertive language is warranted.

Although we demonstrated that assertive phrasing can be effective for consumers who perceive the issue as highly important, it is not clear whether assertive phrasing has a long-lasting effect on environmental behavior. Thus, further research should investigate whether assertive phrasing can be as effective as repeated reminders in conditions in which green requests are used.

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