Going Green to Be Seen: Status, Reputation, and Conspicuous Conservation

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Why do people purchase proenvironmental "green" products? We argue that buying such products can be construed as altruistic, since green products often cost more and are of lower quality than their conventional counterparts, but green goods benefit the environment for everyone. Because biologists have observed that altruism might function as a "costly signal" associated with status, we examined in 3 experiments how status motives influenced desire for green products. Activating status motives led people to choose green products over more luxurious nongreen products. Supporting the notion that altruism signals one's willingness and ability to incur costs for others' benefit, status motives increased desire for green products when shopping in public (but not private) and when green products cost more (but not less) than nongreen products. Findings suggest that status competition can be used to promote proenvironmental behavior.

Keywords: altruism, environmental conservation, costly signaling, status competition, consumer behavior

> A good reputation is more valuable than money.
>
> —Publilius Syrus, 100 B.C.

Consider the following car: a compact sedan with a small trunk, standard cloth seats, excellent gas mileage, and a sluggish engine. It might not sound like much, but these features describe one of the most successful cars in recent U.S. history: the Toyota Prius, a small-statured automobile coveted across demographic categories. Why is the Prius is so successful?

One possibility is that the Prius is a hybrid gas–electric vehicle, meaning that it costs less to fuel. Yet it costs many thousands of dollars more to purchase the Prius than a conventional but highly fuel-efficient car such as the Honda Civic. Another possibility is that the Prius has lower emissions, making it more environmentally friendly and "green" than conventional cars. Environmentally conscious consumers may thus be willing to spend more for a car that may sacrifice on performance, features, or comfort to help the environment. Yet when the *New York Times* reported the top five reasons why Prius owners bought their cars, environmental conservation was last on the list. Instead, Prius owners proudly reported that the number one reason for purchasing the car is because it "makes a statement about me." What statement does the Prius make? "It shows the world that its owner cares" (Maynard, 2007).

At first blush it may seem puzzling why individuals would pay a premium to forgo luxury or comfort for the sake of displaying that they care. The current research, however, suggests that there may be important links between displays of caring, environmental behaviors, and competition for status. Whereas traditional approaches associate status with preferences for luxury and self-indulgence, we argue that activating status motives can lead people to shy away from luxury and instead choose self-sacrifice. Our framework draws on costly signaling theory (Miller, 2000; Zahavi, 1975) and on research on competitive altruism (Roberts, 1998; Van Vugt, Roberts, & Hardy, 2007), which posit that conspicuous displays of altruism can function to build and maintain costly prosocial reputations. We argue that green products can demonstrate to others that their owners are voluntarily willing and able to incur the cost of owning a product that benefits the environment (and society) but that may be inferior for personal use. Because voluntary acts of self-sacrifice and the ability to incur costs are associated with status, the current work points to underlying reasons why nice guys—and gals—can finish first (Dreber, Rand, Fudenberg, & Nowak, 2008; Hardy & Van Vugt, 2006; Jensen-Campbell, Graziano, & West, 1995). More broadly, this research contributes to a better understanding of the links between altruism, status, and conservation, while also providing the first test of whether activating status motives can be a viable strategy for promoting proenvironmental behavior.

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Motivation and Environmental Conservation

Considering the detrimental environmental effects produced by pollution, overpopulation, and depletion of natural resources, numerous scholars and public officials have called for increased urgency in motivating people to engage in proenvironmental behaviors. One significant way of meeting such calls involves our behavior as consumers. For example, people often have the option of switching from conventional products to energy-efficient or reusable "green" products. Yet while green options are becoming more widely available, many barriers to change remain (Dietz, Ostrom, & Stern, 2003). For instance, people are notoriously reluctant to change familiar patterns of behavior, and making a switch to green behaviors often necessitates making sacrifices (e.g., paying more for a less effective product).

Following a burst of research on energy conservation in the wake of the 1970s energy crisis, researchers have continued to investigate strategies that promote conservation behaviors (e.g., Gonzalez, Aronson, & Costanzo, 1988; Schultz, Oskamp, & Mainieri, 1995; Van Vugt, 2001; Van Vugt & Samuelson, 1999). Developing an effective strategy, however, requires consideration of the underlying motives for conservation. Several such motives have been identified (e.g., Iyer & Kashyap, 2007; Stern, 1999), each suggesting different strategies for spurring conservation.

According to an environmental concern perspective (e.g., Bamberg, 2003; Fransson & Gärling, 1999; Stern & Dietz, 1994), people are presumed to engage in conservation primarily because they, at some level, intrinsically care about the well-being of the planet and its inhabitants. To motivate green behavior from this perspective, an effective strategy involves better informing people about the plight of the environment (Owens, 2000). Accordingly, information campaigns about the precarious state of the planet should lead people to behave in a proenvironmental fashion, even if going green requires some sacrifice on the part of consumers.

In contrast to the environmental concern perspective, a rational economic perspective suggests that conservation is primarily driven by economic reasons (e.g., Cone & Hayes, 1980; Geller, 1989). Accordingly, an effective way to motivate people to go green is by making green products cheaper, more efficient, and providing consumers with financial incentives (e.g., tax breaks) to buy them (e.g., Matsukawa, Asano, & Kakimoto, 2000; Van Vugt, Meertens, & Van Lange, 1995).

Motives related to environmental concern and economic advantage can certainly spur conservation. Yet recent research suggests that other more socially oriented motives may be even more powerful at influencing people's tendencies to conserve (Van Vugt, 2009). Consider, for example, the types of appeals that spur hotel guests to reuse their towels. Given the messages that are consistently placed in hotel rooms across the world (Goldstein & Cialdini, 2007), hotel managers appear to presume that guests will be motivated by environmental concerns ("please conserve to help the environment") and/or by economic reasons ("please help keep your costs low"). Indeed, when people are surveyed about which messages they believe would be most effective, environmental and economic appeals are rated the highest (Nolan, Schultz, Cialdini, Goldstein, & Griskevicius, 2008). Yet field experiments in hotels and residential communities reveal that significantly higher levels of conservation are generated by appeals that tap into the social nature of conservation, such as information about the conservation behaviors of other hotel guests or one's neighbors (e.g., Goldstein, Cialdini, & Griskevicius, 2008; Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007). Thus, people appear to be particularly sensitive to the social and reputational aspects of conservation and cooperation (Bateson, Nettle, & Roberts, 2006). For example, people are more likely to give money in a public goods game to preserve the environment when the giving is public and can influence one's reputation (Milinski, Semmann, Krambeck, & Marotzke, 2006), suggesting that many consumers might buy green products such as the Prius less for environmental or economic reasons and more for social reasons.

Conservation, Reputation, and Status

Taking a closer look at the reputation aspects of conservation, consider what a person can communicate about him- or herself by going green. By purchasing a Toyota Prius, for example, a person can signal to others that he or she is a prosocial, rather than a proself, individual. That is, instead of buying a conventional and more luxurious car that would benefit only him or her, the Prius owner instead voluntarily chooses to benefit the environment for everyone—even though this act means forgoing the luxury of having a car with more features, comfort, or performance.

Prosocial behavior can have important functional consequences. Engaging in prosocial behaviors such as environmental conservation, for example, can build a prosocial reputation (Semmann, Krambeck, & Milinski, 2005; Wedekind & Braithwaite, 2002). Having a reputation as a cooperative and helpful group member can be extremely valuable: Such individuals are not only seen as more trustworthy (Barclay, 2004), but they are more desirable as friends, allies, and romantic partners (Cottrell, Neuberg, & Li, 2007; Griskevicius et al., 2007; Iredale, Van Vugt, & Dunbar, 2008; Miller, 2007; Stiff & Van Vugt, 2008). Importantly, being prosocial without being obsequious is associated with status in a group. The definition of status necessarily implies a hierarchy of rewards, whereby higher status individuals have greater access to desirable things. Although status can be achieved through dominance (e.g., by force), here we focus on status as achieved through prestige, meaning that status is gained through freely conferred deference (Henrich & Gil-White, 2001). Research has shown that self-sacrifice for the benefit of a group of strangers has been shown to increase the self-sacrificer's status in that group, including the likelihood that the person will be selected as a leader (Gurven, Allen-Arave, Hill, & Hurtado, 2000; Hardy & Van Vugt, 2006; Milinski, Semmann, & Krambeck, 2002). The notion that prosocial individuals are desirable to have in positions of power suggests that prosocial behavior may be a viable strategy for attaining status.

Competitive Altruism and Costly Signaling

Considering the status-enhancing benefits of cooperation, one might expect that people would strive to be seen as prosocial. Indeed, individuals across diverse cultures and historical periods are known to compete for status by trying to be seen as relatively more altruistic—a concept known as *competitive altruism* (Barclay & Willer, 2007; Hawkes, 1993; Roberts, 1998; Van Vugt et al., 2007). For example, in the Native American Kwakiutl tribal practice of potlatching, tribal chiefs compete to give away their pos-

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sessions (Cole & Chaikin, 1990). Accordingly, the person who is able to give away the most resources is regarded as the highest standing member in the group (Murdock, 1970). Anthropologists have observed similar cases of altruistic signaling in numerous hunter–gatherer societies, including the Ache of Paraguay and the Meriam of Australia (Smith & Bird, 2000). Among the Shuar of the Amazon, for instance, individuals who take on voluntary administration jobs are rewarded with status and prestige (Price, 2003). From the conspicuously large donations made by modern-day tycoons such as Ted Turner or Bill Gates, to the sponsorship of trans-Atlantic voyages and opulent operas by European royals, and to the desire to be the nicest dinner-party hostess, competitive altruism perforates across historical and contemporary cultures (Boone, 1998; Griskevicius et al., 2007).

The prevalence of competitive altruism, however, presents a theoretical conundrum. Self-sacrifice, especially repeated self-sacrifice, is costly. Altruism by definition benefits others at the cost of depleting the giver's resources needed for survival, reproduction, or kin care (Barrett, Dunbar, & Lycett, 2002; Tooby & Cosmides, 1996). For this reason, a rational economic perspective considers altruism to be a theoretical "anomaly" (Dawes & Thaler, 1988). The existence of altruism is similarly puzzling from an evolutionary, gene selection perspective (Dawkins, 1976). Although the theories of inclusive fitness (Hamilton, 1964) and reciprocal altruism (Trivers, 1971) have explained helping between kin and social allies, the process underlying the evolution of altruism between strangers or toward individuals who cannot reciprocate remains unclear (e.g., see Gintis, Bowles, Boyd, & Fehr, 2007; McAndrew, 2002; Van Vugt & Van Lange, 2006).

One explanation for the prevalence of altruism stems from costly signaling theory (Grafen, 1990; Zahavi, 1975). This theory was developed in the field of behavioral ecology and has garnered much theoretical and empirical support in studies of both animal signaling and human behavioral ecology (e.g., Gintis, Smith, & Bowles, 2001; Gurven et al., 2000; Lotem, Fishman, & Stone, 2002; Smith & Bird, 2000; Sosis, 2000). Costly signaling theory, however, has only recently emerged as a framework for understanding aspects of human psychology (e.g., Griskevicius et al., 2007; Miller, 2000). According to a costly signaling perspective, an altruistic act is a communicative signal. This signal, however, communicates more than a person's prosociality; altruism can also signal an individual's ability to incur costs (Bird & Smith, 2005). That is, in addition to signaling that a person is prosocial, altruism can simultaneously signal that one has sufficient time, energy, money, or other valuable resources to be able to afford to give away such resources without a negative impact on fitness. Thus, from a costly signaling perspective, incidents of public self-sacrifice are associated with status because such acts demonstrate both one's willingness and one's ability to incur the costs of self-sacrifice for public welfare.

Arabian babblers, a species of social birds, provide a prototypical nonhuman example of self-sacrificial behavior that acts as costly signaling. Individual babblers compete with unrelated group members to be the group's sentinel, who is responsible for watching for predators from tree-tops in order to warn the group of potential danger (Zahavi & Zahavi, 1997). Given that the sentinel's duty entails putting itself at a higher risk of death than other babblers, one might predict that individuals would attempt to avoid this self-sacrificial job. Yet some studies have shown that babblers actively compete with each other for this high-status position (Bergstrom & Lachmann, 2001; but see Wright, 1997). Consistent with costly signaling theory, the more time a babbler spends as a sentinel, the higher its status and access to mates in the group.

Given the relationship between self-sacrifice and status, costly signaling theory suggests that people might engage in costly prosocial behaviors such as environmental conservation particularly when they are motivated to attain status. Because the purchase of green products enables a person to signal that he is both willing and able to buy a product that benefits others at a cost to his personal use, activating a motive for status might lead people to engage in conspicuous conservation—public proenvironmental acts.

The Current Research

The current research examines how activating status motives influences product choices when people are choosing between relatively luxurious nongreen products that primarily serve the self versus less luxurious green products that can benefit society. Consider, for example, a person looking to buy a new car. Standing in the bustling show room at the local car dealership, a contemporary consumer is likely to face the following choice: Given a certain budget, should he or she buy a more luxurious and higher performing—but energy-wasteful and more-polluting—car? Or should he or she buy a less luxurious and lower performing—but energy-efficient and less-polluting—green car (e.g., a hybrid vehicle)? If the person is motivated to compete for status at the time of the decision, which of these cars is he or she more likely to choose?

A traditional perspective suggests that status motives should lead people to choose the more luxurious product (e.g., Godoy et al., 2007; Rucker & Galinsky, 2008; Sadalla & Krull, 1995). After all, not only is a person likely to enjoy the greater comfort and performance of this product, but luxurious products have historically been associated with greater wealth. Previous research, however, does not consider what might happen when people have the option to choose a prosocial green product. In such a case, choosing the nongreen car might suggest to others that the buyer is a selfish and uncaring individual who is concerned primarily about his or her own comfort rather than the welfare of society. Indeed, costly signaling theory suggests that status motives should lead people to value self-sacrifice and choose the less-luxurious green product.

Experiment 1: Status and Conservation

The first study examined how activating a motive for status influenced choices between relatively luxurious "nongreen" products and less-luxurious proenvironmental "green" products. Whereas nongreen products were superior on dimensions of luxury and performance, green products were superior on the dimension of proenvironmental benefits. The two types of products were always equally priced.[1] Because the nongreen products were chosen specifically to be more desirable than their green counterparts, we predicted that nongreen products should be chosen more frequently in the control motive condition. In contrast, we predicted

[1] Indeed, such products are often similarly priced. For example, an upscale 2009 Honda Civic with all of the available options is about the same price as the base model of the proenvironmental 2009 Honda Civic Hybrid.

that activating status motives should increase the likelihood of choosing the less luxurious and more prosocial green products.

Method

Participants. One hundred and sixty-eight students (65 men, 103 women) at a large public university participated in the study for course credit. All participants came to the lab in small groups and were seated at computers between partitions.

Design and procedure. The study had two between-subjects motive conditions: status and control. Status motives were elicited by having participants read a short story (see below). Participants then made a series of choices between more luxurious nongreen versus less luxurious green products. To minimize potential suspicions, a cover story was used. Specifically, participants were told that they were going to participate in several different studies, whereby the first study concerned memory. Consistent with this cover story, participants read a short story and were told that they would be asked to recall information about the story later in the session. However, because it was important to let some time pass before the memory recall task (ostensibly, to allow for memory decay), participants would work on another survey regarding product preferences. Poststudy interviews did not reveal any suspiciousness.

Motive primes. To elicit status motives, participants read a short story of about 700 words that has been used successfully to elicit status motives in previous research (see Griskevicius, Tybur, et al., 2009). In the story, participants imagine graduating from college, looking for a job, and deciding to go work for a large company because it offers the greatest chance of moving up. The story describes the person's first day on the job, focusing on the high-status features of the workplace such as the upscale lobby and nice furniture. Readers eventually learn that they will have an opportunity to receive a desirable promotion. The story ends as the reader ponders moving up in status relative to his or her same-sex peers.

Extensive pilot testing of this manipulation (reported in Griskevicius, Tybur, et al., 2009) showed that relative to the control story, the status story elicits a "desire for social status" (6.63 vs. 1.97 on a 1–9 scale, $p < .001$, $d = 2.4$) and a "desire for prestige" (6.21 vs. 1.88, $p < .001$, $d = 2.3$). Compared to the control story, the status story also elicited relatively similar levels of negative affect and positive affect. Importantly, the status story did not mention what the company does or what types of tactics might be useful in gaining status or getting the promotion, meaning that the status manipulation made no mention of cooperation, helping, self-sacrifice, or proenvironmental behavior.

In the control condition, participants read a story of similar length designed to elicit similar levels of affect as the status story. Specifically, participants read about losing a ticket to an upcoming concert and searching for the ticket throughout the house. After the person finds the ticket, he or she heads off to the concert with a same-sex peer (see Griskevicius, Cialdini, & Kenrick, 2006; Griskevicius, Goldstein, Mortensen, Cialdini, & Kenrick, 2006). The control and status stories were carefully matched to include interactions with same-sex peers.

To ensure that potential results were not driven by some particular aspect of the control story, the current study included a second control condition in which participants did not read any story. Instead, participants in this condition simply indicated their product choices. We predicted that the two control conditions would not differ from each other on any of the dependent measures. Consistent with this prediction, analyses revealed that the two control conditions did not differ from each other on any of the dependent measures (all ps $> .8$). The two control conditions were thus combined for the analyses.

Products. After the motive manipulation, participants proceeded to the next part of the study (consistent with the cover story). Participants were asked to consider that they were out shopping for three products: (a) a car, (b) a household cleaner, and (c) a dishwasher. These products were chosen for the study because all are currently available in a proenvironmental and a conventional form, and each type of product is proenvironmental in a slightly different manner (e.g., low CO_2 emissions, nontoxic, and water efficient, respectively).

For each of the three types of products, participants were presented with a choice: the more luxurious nongreen option or the green option. For each choice, the two products were equal in price, were manufactured by the same company, and were accompanied by three features that described key aspects of each product. Importantly, the nongreen product was superior on dimensions of luxury and performance, whereas the green product was superior on the proenvironmental dimension. For example, both the nongreen and green dishwasher were manufactured by Sub-Zero and cost $1,100. The more luxurious nongreen dishwasher was an "ED40 Elite" model, featuring a revolutionary heated drying system that eliminates water spots, powerful water sprays that produce almost no sound, and a choice of stainless steel or white exterior with black chrome. In contrast, the less luxurious green dishwasher was an "Eco-Trend" model and had a standard 40-min running cycle, a recirculating water system to save water, and recycled components. The car and household cleaner had similar types of descriptions specific to those types of product (see Appendix for the full descriptions of all products).

Because we predicted that status motives should lead people to want to be seen as more prosocial, it was important that all three green products were perceived as being associated with more prosociality than their nongreen counterparts. We thus pretested the perceptions of the three products with a separate group of 112 participants (71 men, 41 women). These participants saw either the three green products or the three nongreen products accompanied with their complete descriptions (see Appendix). For each of the three products, participants indicated on a 1–9 scale the extent to which the person who owned this product was (a) nice, (b) caring, and (c) altruistic. As expected, compared to the nongreen products, all three green products were associated with being nicer (Ms = 6.43 vs. 5.43, $p < .001$, $d = 1.4$), more caring (Ms = 6.82 vs. 5.47, $p < .001$, $d = 1.9$), and more altruistic (Ms = 6.65 vs. 5.50, $p < .001$, $d = 1.5$). There were no interactions (ps $> .6$), meaning that all three products showed similar patterns. Thus, as expected, people who were to buy any of the three green products relative to their nongreen counterparts were perceived as more prosocial.

In the current experiment, the three types of products were presented in random order. For each of the three choices, participants were asked the following two-option question: "If you were out shopping for a car/dishwasher/household cleaner, which of these two products would you buy?" Because motive did not

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interact with participant sex for any of the three products (all *p*s > .4), the analyses are collapsed across participant sex.

Results and Discussion

Considering that the nongreen version of each product was selected to be superior on dimensions of luxury and performance, we predicted that participants in the control condition would be more likely to choose the nongreen product. Indeed, as seen in Figure 1, in the control condition participants were more likely to choose the nongreen car (62.8% chose the nongreen car, whereas 37.2% chose the green car), the nongreen household cleaner (74.3% chose the nongreen cleaner), and the nongreen dishwasher (65.5% chose the nongreen dishwasher). Thus, in the absence of status motives, all three nongreen products were more desirable than their green counterparts.

The key prediction in the experiment was that activating status motives should increase the likelihood of choosing the green product relative to the same green product in the control condition. As seen in Figure 1, whereas 37.2% of participants chose the green car in the control condition, 54.5% of participants chose it in the status condition, $\chi^2(1, N = 168) = 4.56$, $p = .033$, $\varphi = .165$. Similarly, choice of the green cleaner increased from 25.7% in the control condition to 41.8% in the status condition, $\chi^2(1, N = 168) = 4.52$, $p = .034$, $\varphi = .164$. Choice of the green dishwasher also increased from 34.5% in the control condition to 49.1% in the status condition, $\chi^2(1, N = 168) = 3.30$, $p = .069$, $\varphi = .140$. In addition to examining the influence of status motives on each product individually, we also analyzed the effect of status when the three products were combined into a composite. As predicted, a one-way analysis of variance (ANOVA) on the product composite showed a significant effect of status, $F(1, 166) = 8.53$, $p = .004$, $d = 0.47$.

In summary, activating status motives led people to increase the likelihood of choosing proenvironmental green products over more luxurious nongreen products. Consistent with predictions, status motives increased people's tendencies to forgo luxury when given the opportunity to choose an equally priced green product that could signal one's prosocial nature. This study is the first to demonstrate that eliciting status motives can be an effective way to motivate people to engage in proenvironmental, self-sacrificing behavior.

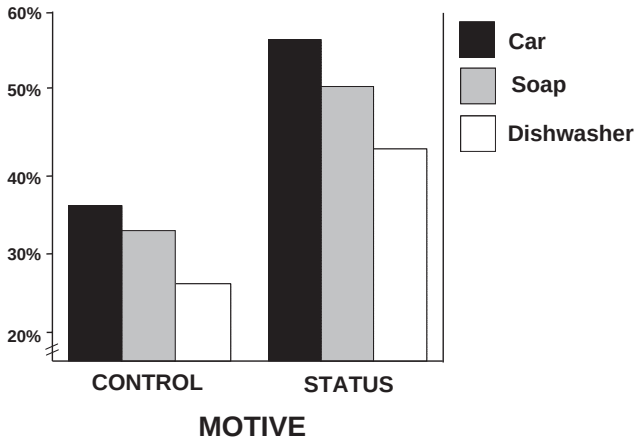

Figure 1. Percentage of people choosing proenvironmental "green" products over more luxurious nongreen counterpart products as a function of active motive (Study 1).

Experiment 2: Status and Conservation in Public Versus Private

The first study showed that activating status motives increased the tendency to choose a self-sacrificing prosocial green product over a more luxurious nongreen product. This finding might initially appear puzzling: After all, traditional perspectives predict that status motives should lead people to especially want luxurious and upscale products (e.g., Godoy et al., 2007). So why did status motives produce the opposite outcome in Study 1? And when might status motives lead people to choose luxury over being nice?

According to costly signaling theory, one of the key factors in how status motives should influence purchasing decisions is the extent to which the purchase is public versus private (Griskevicius et al., 2007). Public purchases can conspicuously signal characteristics about the buyer to an immediate audience. Shopping at a store, for example, usually entails interacting with salespeople, cashiers, and other customers who might see one's purchases. Accordingly, costly signaling theory predicts that status motives should lead people to be especially sensitive to what their behaviors might signal to others when such behavior is observable (e.g., Goldberg, 1995; Harbaugh, 1998; Kurzban, DeScioli, & O'Brien, 2007). In contrast, if a person were to buy the same product while shopping alone on the computer from his home, the signaling aspects of the decision are much less salient, suggesting that status motives might have a different effect on product preferences when shopping in private.

The second study examined how status motives influenced preferences for green versus more luxurious nongreen products when people considered shopping in a public setting (at a store) versus a private setting (alone online at home). We predicted that when people considered shopping in public (as in Study 1), status motives should increase preferences for green products over more luxurious and better performing nongreen products. In contrast, we predicted that when people considered shopping in private, status motives should not produce the same outcome.

Method

Participants. Ninety-three students (58 men, 35 women) at a large public university participated in the study for course credit. All participants came to the lab in small groups and were seated at computers that were partitioned from each other.

Design and procedure. The experiment had a 2 (motive: status, control) × 2 (audience: private, public) between-subjects design. Status motives were elicited by having participants read the same short story as in the first study; in the control condition participants read the same non-status-related story as in the first study. After the audience manipulation (see below), participants indicated their preferences between three green versus three nongreen products. To minimize potential suspicions, the same cover story as in the first study was used.

Public versus private. After the motive manipulation, participants saw a specific set of instructions before indicating their

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product preferences. In the public condition, similar to Study 1, participants were told, "Imagine that you are out shopping at a store." In the private condition, participants were told, "Imagine that you are shopping online by yourself at home."

Products. Because the private condition in this study involved shopping online, products such as cars and dishwashers were not used because most people are unlikely to shop for such products online. Instead, participants indicated preferences for three products they might purchase on the Internet: (a) a backpack, (b) batteries, and (c) a table lamp. As in the first study, participants had a green and a nongreen option for each product. Although the two options were equal in price and were made by the same company, the nongreen product was superior on luxury. In contrast, the green product was inferior on luxury but had proenvironmental features. For example, both the more luxurious nongreen backpack and the less luxurious green backpack were made by The North Face and cost $60. The relatively more luxurious nongreen backpack had a stylish design and was crafted with water-resistant coating, had eight different storage compartments, and was made from solid synthetic construction. In contrast, the less luxurious green backpack was made from 100% organic fibers, had a design that minimized waste in the construction process, and came with instructions on how to recycle the backpack. The batteries and table lamp had similar types of descriptions specific to those products (see Appendix).

The green and nongreen versions of each product were presented on the computer screen at the same time. One of the products was labeled "Product A" and the other was labeled "Product B." For each of the three products, participants were asked, "Which of these two products is more attractive to you?" Preferences were indicated on a 9-point scale with the labels *definitely product A* and *definitely product B* at the endpoints.

Results and Discussion

We first examined whether the motive and audience manipulations had similar effects on the three types of products. A three-way repeated-measures ANOVA with type of product as a within-subjects factor did not reveal any interactions (all ps $> .50$), indicating that the effects of motive and audience did not vary between products. The three products were thus combined into a product composite. As in Study 1, analyses did not reveal any interactions with participant sex (all ps $> .30$), so the remainder of the analyses was collapsed across participant sex.

To control for counterbalancing whether preferences for a given product were presented on the left or right side of the scale, ratings for of the dependent measures were transformed so that higher numbers indicated preference for green products. Considering that the nongreen products were designed to be superior on luxury and performance, it was expected that nongreen products would generally be more desirable than the green counterparts. Indeed, as in the control condition of Study 1, the luxurious nongreen products in the control condition were more desirable relative to their green less luxurious counterpart products. Specifically, considering that a rating of 5.0 represents equal attractiveness between the nongreen and green product, the mean rating of 3.4 in the control condition suggests that people generally preferred the more luxurious nongreen product (see Figure 2). Product preferences in the control condition were also not influenced by audience ($p > .80$),

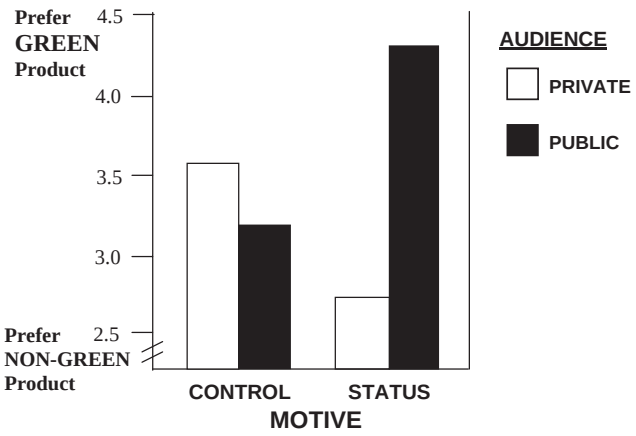

Figure 2. Preference for "green" products relative to more luxurious nongreen products as a function of active motive and whether purchasing is public or private (Study 2).

meaning that participants in the control condition had similar preferences regardless of whether they were considering making a purchase in public or in private.

To examine if status motives had a different effect on preferences depending on whether people were shopping in public or private, a two-way ANOVA with motive and audience was performed. This analysis revealed a significant interaction, $F(1, 89) = 8.13$, $p = .005$, $\eta^2 = .084$. As predicted, when shopping in public, status motives increased preferences for green products relative to such preferences in the control condition, $F(1, 89) = 5.38$, $p = .023$, $d = 0.48$ (see Figure 2). Thus, as in the first study, activating status motives led people to be more likely to prefer green products when shopping in public.

When shopping in private, however, status motives produced a very different effect: Status motives marginally decreased preferences for green products relative to such preferences in the control condition, $F(1, 89) = 2.97$, $p = .058$, $d = 0.41$. This means that when purchases were being made in private—when reputational costs were not salient—activating status motives appears to somewhat increase the attractiveness of luxurious (nongreen) products.

In summary, conceptually replicating Study 1, status motives led people to prefer green products relative to more luxurious nongreen products. As in the first study, status motives increased attractiveness of proenvironmental products specifically when people were shopping in public. When people were shopping in private, however, status motives increased desire for luxurious, self-indulgent nongreen products. Thus, in line with costly signaling theory, status motives led people to forgo luxury and desire prosocial environmental products only when it was salient that such choices could be observed and influence one's reputation.

Study 3: The Price of Prosociality

The findings so far show that status motives can lead people to prefer green rather than more luxurious nongreen products. Although this finding is consistent with our framework, it might initially appear contradictory with previous research on status and conservation. For example, Sadalla and Krull (1995) showed that conservation behaviors such as recycling and taking public trans-

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portation are associated with lower status, not higher status. If so, how can status motives lead people to prefer conservation-friendly green products?

The answer to this puzzle involves a crucial aspect of the first two studies: The prices of the green and the nongreen products were equal. That is, when choosing between the more luxurious nongreen product and the more prosocial green product, price was not a factor. Changing the relative price of the two products, however, may have important implications for how status motives should influence desirability of green products. From a rational economic perspective, for example, making green products cheaper and more affordable is likely to make them more attractive. After all, many types of green products such as hybrid cars and energy-efficient light bulbs tend to save money in the long run, meaning that a lower price should make them more appealing. However, a costly signaling framework suggests that lowering the price of green products creates an important reputational dilemma: Buying a cheaper (green) product rather than a more expensive (nongreen) product might explicitly signal that a person cannot afford the more expensive product. Indeed, previous research shows that conservation behaviors such as taking public transportation are associated with lower status specifically because such proenvironmental actions signal that the person does not have enough resources to behave otherwise (Sadalla & Krull, 1995).

From a costly signaling perspective, recall that altruism is associated with status in part because altruistic displays can function to signal one's ability to incur costs (i.e., altruism signals one's wealth). For example, buying a hybrid car, which costs several thousand dollars more than a comparable nonhybrid car, not only signals that the owner cares about the environment, but it also signals that the owner can afford to pay the large premium for such a car. If altruism functions as a costly signal in part because it signals one's wealth, then increasing the price of a green product might actually lead that product to be more attractive for individuals motivated to gain status. Indeed, consider that economic pundits predicted that abolishing tax credits for hybrid cars in the United States would decrease their sales because of the increase in the cost to buy the car. Yet after tax credits for the Prius expired in late 2006, sales actually went up by 68.9% ("Toyota Reports," 2008). Although it is certainly possible that this increase might have been even larger had the tax incentive remained, pundits were similarly bewildered by Lexus's decision to start selling a hybrid sedan in 2007 priced at over $100,000. Yet again, sales of the conspicuously proenvironmental and ultra-expensive Lexus LS600h exceeded projections by over 300% (Ramsey, 2007). Consistent with a costly signaling perspective on altruism, both the Prius and the Lexus examples suggest that increasing the price of a proenvironmental product might actually make it ideally appealing to individuals seeking status, whereby such products can simultaneously signal that its owner is both caring and wealthy.

In the current study we examined how status motives influenced the attractiveness of green versus nongreen products when the price of the green product was either higher or lower than its nongreen counterpart (e.g., a Honda Accord costing $24,000 [$30,000] vs. a Honda Accord hybrid costing $30,000 [$24,000]). Consistent with a rational economic perspective, we predicted that in the control condition green products would be preferred when they are less expensive than their nongreen counterparts. Drawing on a costly signaling framework, however, we predicted that activating status motives should reverse these preferences: Status motives should lead green products to become more desirable when green products are relatively more expensive because such products can signal both prosociality and wealth.

Method

Participants. One hundred and fifty-six students (50 men, 106 women) at a large public university participated in the study for course credit. All participants came to the lab in small groups and were seated at computers that were partitioned from each other.

Design and procedure. The study design was a 2 (motive: status, control) $\times$ 2 (price of green product: more expensive, less expensive) between-subjects design. As in the first two studies, all participants first read either a short story that activated status motives or a control story. Akin to the method in the second study, participants then indicated their relative preferences for green versus nongreen products. Unlike in the first two studies, the products differed in their price.

Products. As in Study 1 and the public condition of Study 2, participants were asked to consider that they were out shopping for three products: (a) cars, (b) backpacks, and (c) dishwashers. For each product, participants chose between a green version and a counterpart nongreen version. The prices of the two counterpart products differed from each other by about 20%. For example, the green and nongreen cars were both Honda Accords with the same features as in Study 1. However, one of the cars was priced at $30,000, whereas the other car was priced at $24,000. The backpack and dishwasher had similar (proportional) price differences.

Dependent measures. Participants responded to a total of three items. As in Study 2, the two versions of each product were presented on the screen at the same time. One of the products was labeled "Product A" and the other was labeled "Product B." After being told to consider that they were out shopping, product participants were asked the following for each type of product: "Which of these two products is more attractive to you?" Preferences were indicated on a 9-point scale with the labels *definitely product A* and *definitely product B* at the endpoints.

As in Study 2, a three-way repeated-measures ANOVA with type of product as a within-subjects factor did not reveal that type of product interacted with motive, price, or both (all ps $> .35$), meaning that the manipulations had a similar effect on all three products. The three products were thus combined into a composite for the analyses. As in the first two studies, preliminary analyses also did not reveal any significant interactions with participant sex (all ps $> .40$), so subsequent analyses were collapsed across participant sex.

Results and Discussion

To control for counterbalancing whether products were presented on the left or right side of the scale, ratings for of the dependent measures were transformed so that higher numbers indicated preference for green products. The key overall prediction in the study was that status motives should have a different effect on the desirability for green products depending on the price of the product. A two-way ANOVA with motive and price revealed this predicted interaction, $F(1, 152) = 6.78$, $p = .01$, $\eta^2 = .043$ (see Figure 3). We next examined the specific simple effects.

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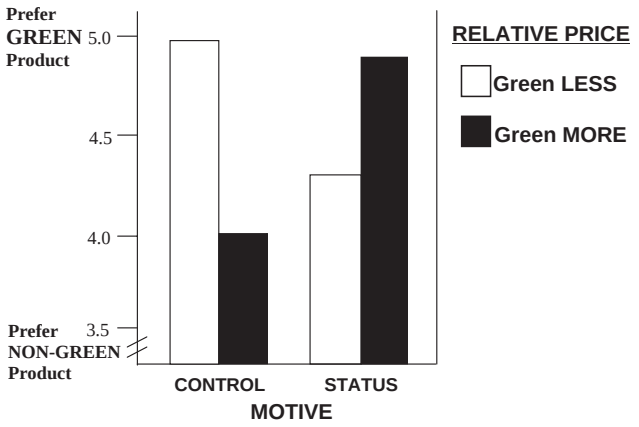

Figure 3. Preference for "green" relative to nongreen products as a function of active motive and whether the green product costs more or costs less than the nongreen counterpart (Study 3).

We first examined product preferences in the control condition by testing whether the relative price of the green product influenced its attractiveness. When no motives were activated, green products were more attractive when they were cheaper than their nongreen counterparts, $F(1, 152) = 5.65$, $p = .019$, $d = 0.41$ (see Figure 3). Thus, as would be expected from a rational economic perspective, lowering the price of green products made them more desirable.

We next examined how status motives influenced preferences for green products relative to the control condition. As indicated by the significant two-way interaction, the influence of status motives on the attractiveness of green products depended on the relative price of those products. Specifically, when green products were more expensive, status motives increased desire for green products, $F(1, 152) = 4.35$, $p = .039$, $d = 0.33$ (see Figure 3). Thus, status motives made green products particularly attractive when those products cost more than the nongreen option. However, status motives did not increase desire for green products when such a choice could undermine the signaling of resources. In fact, when green products were cheaper, status motives somewhat decreased desire for these cheaper green products, $F(1, 152) = 2.55$, $p = .11$, $d = 0.25$ (see Figure 3), although this two-tailed simple effect test did not reach conventional levels of significance.

In summary, status motives led prosocial green products to be desirable specifically when green products cost more than their nongreen counterparts. In fact, when green products were relatively cheaper, status motives actually somewhat decreased desire for these inexpensive proenvironmental products. This finding suggests that even though affordable green products are more efficient at helping the environment, the purchase of such inexpensive green products might undermine a person's ability to signal his or her wealth via proenvironmental acts. Indeed, consistent with a costly signaling perspective on altruism, a desire for status elicited prosocial tendencies especially when the prosocial acts were costly.

General Discussion

This research started with a simple question: Why are conspicuously "green" products such as the Toyota Prius, a hybrid gas–electric automobile, so successful in the marketplace? One traditional explanation for the success of such products is that green products can save money on energy costs. Yet it costs many thousands of dollars more to purchase a hybrid car such as the Prius than a comparable conventional but highly fuel-efficient vehicle. Another traditional explanation suggests that green products such as the Prius are purchased by environmental activists who are willing to pay extra to do something significant to help the environment. Yet surveys asking why Prius owners buy their cars show that environmental conservation is relatively low on the list (Maynard, 2007).

To investigate the motive(s) behind the success of green products and other conspicuous conservation behaviors, we turned to costly signaling theory and research on competitive altruism, which suggest a link between altruistic acts and status (Hardy & Van Vugt, 2006). Costly signaling theory posits that altruistic acts such as environmental conservation can function to communicate a person's willingness and ability to incur costs. Thus, in addition to signaling that a person is prosocial rather than proself, altruism can simultaneously signal that one has sufficient time, energy, money, or other resources to be able to afford to give away such resources without a negative impact on fitness (Zahavi & Zahavi, 1997). Because prosociality and resources are associated with an individual's status in a group, we predicted that the activation of status motives might produce prosocial/proenvironmental tendencies.

Supporting predictions, a series of experiments showed that activating status motives led people to choose prosocial green products over more luxurious, equally priced nongreen products. In line with the predicted reputational benefits of self-sacrifice, status motives increased desire for less luxurious green products when shopping in public, but not in private. Indeed, when people considered shopping in private, status motives produced a tendency toward self-indulgence rather than self-sacrifice. Taken together, these findings suggest that while green products may often offer less luxury, convenience, and performance than conventional goods, green products offer an important status-enhancing reputational benefit: Such goods enable people to appear prosocial rather than proself. Perhaps nowhere is this type of benefit clearer than when one purchases the highly visible and easily identifiable Toyota Prius, which essentially functions as a mobile, self-promoting billboard for proenvironmentalism.

It is noteworthy that in our studies status motives had a similar effect on preferences for green cars and backpacks, as they did on green batteries and soap. Clearly, some products are more visible than others, and it is certainly conceivable that status motives might have the strongest influence on desire for the most visible green products. Nevertheless, we find that merely making the concept of a public audience salient leads people to desire many types of green products. Our findings are clearly consistent with the notion that actions in public can influence one's reputation to a much greater extent than actions in private.

Additional findings showed that status motives increased desirability of green products especially when such products cost more—but not less—relative to nongreen products. In line with costly signaling theory, buying inexpensive green products can undermine a person's ability to signal wealth. This finding suggests that green products such as the Toyota Prius might be selling well not despite their premium price tag but perhaps in part

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because such products are more expensive. Indeed, 40% of hybrid owners indicate that they bought a green car as an alternative to a traditional luxury car such as a BMW (Topline Strategy Group, 2007).

Whereas traditional approaches associate status motives with luxury and self-indulgence, we show that activating status motives can lead people to shy away from luxury and instead choose self-sacrifice. This counterintuitive finding and two suppressors of this effect—audience and product cost—were clearly derived from costly signaling theory and research on competitive altruism, demonstrating experimentally the links between altruism, reputation, and status.

Practical Implications

Whereas status motives have traditionally been associated with selfishness, our framework suggests that activating status motives may be an effective strategy for promoting proenvironmental or other types of prosocial behavior. Indeed, while economic or environmental concerns can certainly foster green behavior, the social aspects of conservation are often ignored. Yet we find that social motives such as concern for status can be significant in fostering green behavior. Our findings suggest that marketers of green products are well-advised to clearly link such products to status (e.g., celebrity endorsers, prestigious events), especially when a green product is relatively expensive (e.g., when such products have high development costs and cannot be sold at a loss). As indicated by Study 2, however, a key component of harnessing the power of status motives to benefit social welfare necessitates that the prosocial acts be visible to others, whereby such acts can clearly influence the well-doer's reputation. For example, nonprofit organizations are well-advised to give their benefactors visible signs, tags, or badges (e.g., the highly visible yellow Livestrong armband signifying cancer donations), so that benefactors can clearly display their self-sacrificing and status-enhancing acts.

A costly signaling framework also suggests that it would be a mistake to link green products to status when such products are relatively cheap because inexpensive products can undermine the signaling of wealth by its owner. Indeed, a key counterintuitive aspect of this framework is that attempts to make green products cheaper, easier to buy, or more time-saving can actually undercut their utility as a signal of environmentalist/altruist dedication. For example, in contrast to standard economic models, a costly signaling framework suggests that electric cars might be seen as more prestigious and more desirable if recharging stations are harder to find and take longer to recharge the batteries, rather than being ubiquitous, fast, and efficient.

Note that in our studies, status motives did not lead people to completely move away from nongreen products and switch to green products. This finding does not imply that status motives have little influence on actual purchases of green products. Instead, we specifically chose the nongreen products and the descriptions of these products to make them highly desirable, especially relative to their nongreen counterparts. Despite the high desirability of the nongreen products, activating status motives nevertheless moved people away from the desirable nongreen product to the (initially much less desirable) green product.

It is important to note that the current studies do not imply that status motives will lead people across cultures to engage in proenvironmental action per se. Recall that costly signaling theory and the notion of competitive altruism state that status is associated with prosociality, not environmentalism. Whether a given behavior is considered prosocial, of course, will certainly differ among cultures and subcultures. In current-day Western society, for example, proenvironmental behaviors are generally viewed as prosocial. Indeed, our product pretest findings in Study 1 indicate as such. But in a rural Chinese village, for instance, the state of the environment may not be an important social issue, nor might village residents even have the option to purchase green products. In fact, activating a status motive for a rural Chinese entrepreneur may lead him to pollute rather than conserve the environment, such as by building a factory near the village. Yet this outcome is by no means inconsistent with an understanding of status and altruism from a costly signaling perspective: Although the factory may pollute the environment, building the factory close to the village may be seen as highly prosocial by the local community members because it creates many needed jobs for local residents.

Alternative Explanations

The hypotheses in this set of studies were derived from costly signaling theory (Miller, 2000; Zahavi, 1975), research on the competitive altruism hypothesis (Roberts, 1998; Van Vugt et al., 2007), and research on evolutionary social cognition (e.g., Griskevicius, Goldstein, et al., 2009; Haselton & Nettle, 2006; Kenrick et al., 2009; Maner et al., 2005). There is no doubt that predictions regarding status and green consumption might be generated by alternative perspectives. It is not clear, however, whether these other perspectives would offer as parsimonious and complete an account of the nuanced pattern of results obtained in these studies. For example, at first blush, one potential explanation of our findings may be that environmentally friendly products are perceived as unique and fashionable, and that status motives might simply lead people to want to be unique, different, and fashionable. Yet not only are green products today rather common, but the nongreen products in the current studies are likely to be seen as equally (if not more) chic and unique. For instance, having a nongreen car with the latest GPS navigation system, a dishwasher with a revolutionary drying system, or a lamp coated with a space-age material to make it resistant to dust connotes uniqueness and the latest luxury. Yet across studies status motives led people to forgo these more luxurious and unique goods for products that could signal caring about the environment.

A pure social learning model (i.e., a blank slate model) might suggest that people have simply been differentially rewarded for owning green products in today's Western society. However, even if people in Western cultures today are rewarded more for behaving proenvironmentally, a pure social learning perspective does not adequately explain why such individuals are rewarded more. In contrast, our evolutionary framework offers a parsimonious explanation regarding both the ultimate function and the proximate mechanism for prosocial behavior. Of course, it is important to note that social learning theories are not mutually exclusive with evolutionary accounts, since evolutionary theorists presume that learning across cultures is a function of evolutionary constraints, and that many behaviors involve an adaptive interplay of learning

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and evolved predispositions. For example, the very implications of carbon emissions for climate change must be learned socially. We are not aware, however, of a priori predictions made by pure social learning theories for the very specific patterns of results obtained here—patterns that follow directly from considerations of costly signaling theory and research on competitive altruism.

Finally, although our findings are consistent with costly signaling theory and research on competitive altruism, it is important to note that the current research was not intended to be a test of different theoretical accounts of the evolution of altruism. For example, our findings regarding conspicuous conservation are also consistent with an indirect reciprocity account of the evolution of altruism (Alexander, 1987; Nowak & Sigmund, 2005; see Milinski et al., 2006). One key difference between a costly signaling and an indirect reciprocity interpretation of altruism is the ultimate function of a prosocial reputation. From an indirect reciprocity perspective, a prosocial reputation functions primarily to motivate others to cooperate with the prosocial individual; from a costly signaling perspective, a prosocial reputation functions primarily to signal an underlying quality (e.g., one's willingness and ability to be prosocial). In this sense, a costly signaling perspective on altruism is broader because the signaling of various underlying qualities via helping can in turn motivate others to cooperate with the prosocial individual. Our research was not intended to be a critical test between these two somewhat overlapping evolutionary accounts of altruism. Indeed, although our findings are consistent with research on competitive altruism, we did not examine directly whether status motives lead people to try to outdo each other via altruism. Future research examining the extent with which altruism is competitive is welcome.

Limitations and Future Directions

One limitation of the current research is that our experiments did not involve the actual purchasing of products. Instead, the current research focused on the context-specific features of psychological adaptations for status and altruism. Future research on how status motives influence purchases is clearly welcome. Nevertheless, there is good reason to believe that our experimental findings are likely to correspond to actual behavior. For instance, our findings on product choice fit well with self-report data on the reasons why people purchase conspicuous green products (Maynard, 2007; Topline Strategy Group, 2007). Similarly, our findings are highly consistent with studies of competitive altruism across cultures (e.g., Gurven et al., 2000; Roberts, 1998; Smith & Bird, 2000; see Van Vugt et al., 2007). Furthermore, although we did not measure behaviors, we did measure product choices (i.e., people chose which product they would buy) and behavioral intentions, which in comparison to attitudes have been shown to have a relatively strong relationship to behaviors (Fishbein & Ajzen, 1975).

This work also opens the gate for many avenues of potentially fruitful future research. One important question for future research concerns what proenvironmental behavior signaling exactly is. That is, although a costly signaling perspective suggests that proenvironmental behavior (and altruism more generally) signals some underlying quality or qualities, it is currently unclear exactly what these qualities are (e.g., intelligence, leadership, health, etc.). One possibility is that such behavior might serve as a signal of universal personality dimensions related to the Big Five (Miller, 2009). For example, green products may be signals of high agreeableness, and perhaps even high conscientiousness and high openness to experience.

A second important question for future research concerns how displays of proenvironmentalism (and altruism more generally) are perceived/interpreted by others. That is, a costly signaling framework predicts not only psychological adaptations for displays of costly signals (e.g., Griskevicius et al., 2007) but also psychological adaptations for the perception and interpretation of such displays. The perception adaptations related to costly signaling have yet to be examined, but it is likely that perception will be different depending on the type of audience. For example, whereas the current research shows that status motives appear to generally lead to costly altruistic displays, the presence of some audiences may produce vastly different displays, such as leading status-seeking young men to display dominance rather than self-sacrifice.

A third avenue for future research involves an examination of how individual differences influence the extent to which status motives lead to self-sacrifice (e.g., Campbell, Simpson, Stewart, & Manning, 2003; Kurzban & Houser, 2005; Van Lange, Bekkers, Schuyt, & Van Vugt, 2007; Van Lange, Otten, De Bruin, & Joireman, 1997). For instance, individuals follow different strategies to acquire status: Some acquire status via dominance (i.e., forcefully gaining status via aggression) and some acquire status via prestige (i.e., gaining status via social influence and respect; Henrich & Gil-White, 2001; Johnson, Burk, & Kirkpatrick, 2007). Those oriented toward a prestige strategy may especially use self-sacrifice to attain status, whereas those oriented toward a dominance strategy may not. Moreover, the effectiveness of a self-sacrifice strategy may vary across observers. Individuals differ in the degree to which they object to antisocial, selfish behaviors (Tybur, Lieberman, & Griskevicius, 2009; Van den Bergh, Dewitte, & De Cremer, 2006), and those who are more bothered by such behaviors may give more respect to those who self-sacrifice (e.g., environmental conservationists) and less respect to those who behave selfishly (e.g., Hummer drivers).

Finally, considering that men are generally more concerned about status-striving and are more likely to engage in "show off" displays than women, it is noteworthy that status motives in our studies influenced both men's and women's product desires in a similar way. It is certainly possible that men are more likely to engage in proenvironmental show-off displays, possibly because status motives may be more chronically active in men than in women. Nevertheless, women also strive for status, and our studies suggest that one status-striving tactic women use is displaying prosociality. Whether this tactic for women is successful at boosting status—and whether such success depends on the audience of the displays—is an interesting question for future research.

Conclusion

As stated at the beginning of the article, the Roman philosopher Publilius Syrus argued that "A good reputation is more valuable than money." This maxim, often repeated in modern societies, suggests that there is a trade-off between being nice (having a good reputation) and being selfish (having money). But considered from a costly signaling perspective, this trade-off may be illusory. Because earning a good reputation can increase an individual's

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status in a group, to be altruistic is to act in one's own self-interest. That is, given that self-sacrifice can communicate the altruist's willingness and ability to incur the costs of helping, a good reputation already signals that a person has the resources to afford such a reputation, which is important in attaining things that are difficult to purchase with money directly (e.g., friendship, love). Thus, even if nice guys (and gals) do not appear to finish first today, their genes may finish first generations from now.

Knowing that a desire for status can spur self-sacrifice also presents a powerful tool for motivating prosocial and proenvironmental action. Indeed, proenvironmental behavior may not only be a viable method of attaining individual status, it may also be a vital method of preserving the status of our species.

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Appendix

Products and Product Features by Study

Products and Product Features in Study 1

Sub-Zero ED40 Elite Dishwasher ($1,100)
- Comes in choice of stainless steel or white exterior with black chrome trim
- Features a revolutionary heated drying system that eliminates water spots
- Has powerful water sprays but produces no sound

Sub-Zero Eco-Trend Dishwasher ($1,100)
- Has a standard 40-minute running cycle
- Uses a recirculating water system to save water
- Is made with recycled components

Honda Accord EX-L V-6 ($30,000)
- Has a high-performing 244-horsepower engine
- Fully equipped with leather seats, GPS navigation system, and a full stereo system
- Averages 22 miles per gallon

Honda Accord HYBRID ($30,000)
- Has a low-emission hybrid 120-horsepower engine
- Comes with standard cloth seats and standard AM–FM radio
- Averages 35 miles per gallon

Lysol Industrial Strength Household Cleaner ($7)
- Awarded most effective cleaner on the market award
- Chemically engineered to cut through the toughest grease, rust, and mold
- Kills 99.9% of germs on contact

Lysol Natural Household Cleaner ($7)
- Made from biodegradable nontoxic materials
- Contains no acids, dyes, or harsh chemicals
- Not tested on animals

Products and Product Features in Study 2

Target brand Chromium-Plated Lamp with Silk Shade ($60)
- Lamp frame is plated with Chromium that is resistant to dulling
- Uses an adjustable 150-watt incandescent bulb with four brightness settings
- Silk shade produces optimal ambient light filtering

Target brand Efficiency Low-Wattage Lamp with Organic Cloth Shade ($60)
- Lamp frame is constructed in a clean and waste-friendly facility that does not produce toxic waste
- Comes with a single-setting fluorescent bulb that uses only 15% of the electricity of conventional bulbs
- Cloth shade made from recycled organic cotton fibers

North Face KD100 Ultra-Strength Backpack ($64)
- Contains eight different storage compartments for maximum versatility
- Stylish design crafted with water-resistant coating
- Solid construction lasts twice as long as the next leading brand on the market

North Face Eco-Life Backpack ($64)
- Made from 100% organic fibers
- Utilitarian design minimizes waste in the construction process
- Comes with instructions on how to recycle the backpack when you are done with it

Energizer e2 Lithium AAA Batteries ($8)
- Last almost twice as long as conventional alkaline batteries
- Weigh 1/3 less than standard alkaline batteries
- Perform in even the most extreme temperatures from –40 to 140 degrees F

Energizer Enviromax AAA Batteries ($8)
- Contain zero amounts of lead, mercury, and cadmium
- Easiest battery to recycle
- Awarded "Most Environmentally Friendly" battery

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