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Rooms for Improvement: A Social Psychological Approach to Hotel Environmental
Conservation Programs

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Abstract

Social psychological research is rife with theories and findings that can be easily applied to the hospitality industry to reduce costs and increase earnings. We discuss how field experimentation on two social norms—the norm of reciprocity and the descriptive norm for pro-environmental action—can benefit businesses, consumers, and the environment.

Many years ago, the old nightclub comic, Henny Youngman, described his temporary accommodations by saying, "What a hotel: The towels were so big and fluffy I could hardly close my suitcase." In recent years, the question of whether to pilfer the towels from one's hotel has been replaced with the question of whether or not to reuse the towels during the course of one's stay. Such conservation programs are utilized by an increasing number of hotel chains not only due to their inherent benefit to the environment and to society, but also due to the considerable economic benefits of enacting them. In addition to the direct savings on costs such as labor, water, energy, and detergent, there is a growing segment of consumers who reward businesses that attend to environmental issues through their business practices.^{1,2}

With the establishment of such environmental programs by hotels, travelers are increasingly being encouraged to reuse their towels to help conserve environmental resources by saving energy and reducing the amount of detergent-related pollutants released into the environment. In almost all cases, the appeal comes in the form of a strategically placed card in the hotels' washrooms. This information is commonly accompanied by various environment-related pictures in the background, ranging from rainforests to rainbows to raindrops to reindeer.

How have marketing practitioners chosen to encourage hotel guests to participate in these programs? An informal survey of the messages conveyed by dozens of request

¹ Les Carlson, Stephen J. Grove, and Norman Kangun, "A Content Analysis of Environmental Advertising Claims: A Matrix Method Approach," *Journal of Advertising*, Vol. 22, No. 3 (1993), pp. 27-39.

² Ajay Menon and Anil Menon, "Enviropreneurial Marketing Strategy: The Emergence of Corporate Environmentalism as Market Strategy," *Journal of Marketing*, 61 (January 1997), pp. 51-67.

cards from a diverse assortment of hotels revealed that such cards most frequently attempt to boost towel-recycling efforts by focusing guests on basic environmental protection.³ Specifically, guests are usually informed that reusing one's towels will conserve natural resources and help save the environment from further adulteration and depletion. Two other common but less pervasive types of messages are those appealing to guests' sense of social responsibility to future generations and those informing the guests of the substantial potential savings to the hotel, which implicitly might be interpreted as passing the savings onto its clientele in the long run.

In addition, another type of message that seems to be used with increasing frequency is based on the concept of cooperation through incentives. In such messages, guests are told that by reusing their towels they will become cooperating partners with the hotel in furthering its conservation efforts. To encourage cooperation in such cases, guests are told that if they reuse their towels, the hotel will donate some percentage of those savings to environmental causes. Considering the known motivational power of incentives, practitioners who employ this type of message presumably believe that it will yield an enhanced towel reuse rate relative to the standard environmental protection appeal.

An Initial Test of Traditional Appeals

As psychological researchers who study social influence, we were naturally interested in how well each of these signs motivates consumers to participate in such a program. To accomplish this, we worked with the management at a local hotel to use four

³ Robert B. Cialdini and Noah J. Goldstein, "The Science and Practice of Persuasion," *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 43 (April 2002), pp. 40-50.

signs that we created ourselves.⁴ The four messages were chosen to reflect the purest forms of the four most common types of appeals we had observed in our informal survey. All of the signs were identical in two respects. First, on the front, they informed guests that they could participate in the program by placing their used towels on the washroom towel rack or curtain rod. Second, on the back, they provided information regarding the extent to which the environment would benefit and energy would be conserved if most guests participated in the program. The cards differed, however, in the persuasive appeals designed to stimulate towel recycling. Each of the four signs communicated its message using a short headline in boldface and capital letters; additional text was located underneath that further explicated the appeal:

1. *Environmental Protection* appeal: “**HELP SAVE THE ENVIRONMENT.** You can show your respect for nature and help save the environment by reusing your towels during your stay.”

2. *Social Responsibility for Future Generations* appeal: “**HELP SAVE RESOURCES FOR FUTURE GENERATIONS.** Future generations deserve our concern. Please do your part to protect the environment and conserve dwindling resources for future generations to enjoy. You can help preserve these precious resources for all of us by reusing your towels during your stay.”

3. *Environmental Cooperation* appeal: “**PARTNER WITH US TO HELP SAVE THE ENVIRONMENT.** In exchange for your participation in this program, we at the hotel will donate a percentage of the energy savings to a nonprofit environmental

⁴ Noah J. Goldstein, Robert B. Cialdini, and Vladas Griskevicius. “A Room with a Viewpoint: Using Normative Appeals to Motivate Environmental Conservation in a Hotel Setting,” (2006), manuscript submitted for publication.

protection organization. The environment deserves our combined efforts. You can join us by reusing your towels during your stay.”

4. *Benefit to the Hotel* appeal: “HELP THE HOTEL SAVE ENERGY. The hotel management is concerned about the rising expense to the hotel of energy, labor, and other resources. You can help the hotel save energy by reusing your towels during your stay.”

The room attendants were trained to record whether guests participated in the program. The data revealed that the environmental appeal, cooperation appeal, and social responsibility for future generations appeal elicited approximately the same degree of participation (an average of 30.2%), whereas the benefit to the hotel appeal was easily the least effective in stimulating towel reuse (15.6%). Thus, we found, not surprisingly, that arguing for one’s own interest was counterproductive. In addition, the difference in participation rate between that appeal and the other three was encouraging in that it informed us that guests were in fact reading our signs.

The Norm of Reciprocation

What may seem surprising, however, is that the cooperation-based appeal, in which the hotel asked guests to become cooperating partners with the hotel in furthering conservation efforts via an incentive system, fared no better at eliciting towel reuse than did the standard environmental appeal. At first glance, this cooperation-based approach might seem like an effective strategy for two reasons. First, in general, cooperating with another individual or entity toward the achievement of a common goal is inherently more motivating than attempting to achieve that goal on one’s own.⁵ Second, this cooperation

⁵ e.g., Mary Beth Stanne, David W. Johnson, and Roger T. Johnson, “Does Competition Enhance or Inhibit Motor Performance: A Meta-analysis.” *Psychological Bulletin*, Vol. 125, No. 1 (1993), pp. 133–154.

appeal closely mirrors a typical cause-related marketing appeal, in which a company promises to contribute to a designated cause when the consumer engages in behavior that satisfies the objectives shared by the consumers and the company; and such marketing strategies are generally considered effective.⁶

Despite the reasons that stand in support of this type of appeal, there is reason to believe that a subtle shift in focus could substantially enhance its persuasive power. Specifically, there is little social obligation on the part of a consumer to cooperate with individuals who offer the consumer something only on the condition that the consumer initiates the cooperative effort. Yet, there is a powerful sense of social obligation in all societies—embodied in the norm of reciprocation—to cooperate with individuals who do something for the consumer first and then later ask for a favor in return.^{7,8,9}

The norm of reciprocity not only presides over relationships between individuals; it governs relationships and exchanges between consumers and firms as well. For example, consumers are motivated to reward companies that they perceive to have put a great deal of effort into their product, even when the consumers themselves do not directly benefit from that effort.¹⁰ Moreover, the norm of reciprocity is one element that

⁶ See Rajan P. Varadarajan and Anil Menon “Cause-related Marketing: A Coalignment of Marketing Strategy and Corporate Philanthropy,” *Journal of Marketing*, 52 (July 1988), pp. 58-74.

⁷ Robert B. Cialdini, *Influence: Science and practice*, fourth edition (Boston, MA: Allyn & Bacon, 2001).

⁸ Alvin W. Gouldner, “The Norm of Reciprocity: A Preliminary Statement,” *American Sociological Review*, Vol. 25 (1960), pp. 161-78.

⁹ Dennis T. Regan, “Effects of a Favor and Liking on Compliance,” *Journal of Experimental Social Psychology*, Vol. 7, No. 6 (1971), pp. 627-639.

¹⁰ Andrea C. Morales, “Giving Firms an ‘E’ for Effort: Consumer Responses to High Effort Firms,” *Journal of Consumer Research*, 31(March 2005), pp. 806-812.

is crucial to the development and maintenance of relationships,¹¹ and such interpersonal relationship norms tend to guide exchanges between consumers and firms.¹²

This analysis suggests that a more effective way to induce the desired response would be to reverse the sequence of favor-doing—that is, for the hotel to give the donation first and then ask guests to cooperate in this effort by reusing their towels. To test this hypothesis, we conducted a second study. In addition to including the environmental focus appeal and the cause-related marketing cooperation focus appeal from the first study, which informed guests that the hotel would make a donation to an environmental protection organization that was contingent on the guests' participation decisions, we added an appeal stating that the hotel has already donated to an environmental protection organization on behalf of the hotel's guests, and asked guests to reciprocate this gesture by reusing the towels. Specifically, the *Norm of Reciprocation* appeal stated: "WE'RE DOING OUR PART FOR THE ENVIRONMENT. CAN WE COUNT ON YOU? Because we are committed to preserving the environment, we have made a financial contribution to a nonprofit environmental protection organization on behalf of the hotel and its guests. If you would like to help us in recovering the expense, while conserving natural resources, please reuse your towels during your stay."

We found that that the reciprocation norm condition was more effective (45.2%) than the cooperation (30.7%) condition at soliciting towel reuse behavior. This finding was particularly interesting in light of the fact that these appeals have nearly the same

¹¹ Robert B. Cialdini and Noah J. Goldstein. "Social Influence: Compliance and Conformity," *Annual Review of Psychology*, Vol. 55 (2004), pp. 591-622.

¹² Pankaj Aggarwal, "The Effects of Brand Relationship Norms on Consumer Attitudes and Behavior." *Journal of Consumer Research*, Vol. 31 (June 2004), pp. 87-101.

content but convey quite different messages. Although both of these messages informed the guests that the hotel was donating money to an environmental protection agency, the reciprocation norm condition informed guests that the hotel had initiated the joint effort, utilizing the normative force of reciprocation to prompt guests to participate in the program. The results indicate that making the donation prior to, and non-contingent on, guests' participation decisions was superior to making the donation contingent on guests' participation decisions.

Descriptive Norms

It is important to note that there is another type of norm that we have never observed being utilized in all of the appeals that we have surveyed—a descriptive norm. A descriptive norm refers to the action that is commonly performed in a given situation, and it motivates behavior by informing individuals of what is likely to be effective or adaptive conduct in that situation. Observing how others behave in a given situation supplies information about what kind of behavior is normal, which becomes an especially powerful guiding factor in novel or ambiguous situations.¹³ A wide variety of research shows that the behavior of others in the social environment shapes individuals' interpretations of and responses to the situation.^{14,15} When individuals perceive sufficient social support for a particular behavior, they tend to follow the lead of others because this mental shortcut saves them time and cognitive effort while providing an outcome that has a high probability of being effective.

¹³ Leon Festinger, "A Theory of Social Comparison Processes," *Human Relations*, Vol. 7 (1954), pp. 117-140.

¹⁴ Stanley Milgram, Leonard Bickman, and Lawrence Berkowitz, "Note on the Drawing Power of Crowds of Different Size," *Journal of Personality and Social Psychology*, Vol. 13, No. 2 (1969), pp. 79-82.

¹⁵ Muzafer Sharif, *The Psychology of Social Norms* (New York: Harper, 1936).

A great deal of social psychological research supports the supposition that descriptive norms should be more effective at eliciting participation in the towel reuse program than will standard appeals. To investigate whether the efficacy of such signs might be improved through the utilization of a descriptive norm appeal, we added a fourth message to our second study. Based on information indicating that nearly three-quarters of guests in hotels that utilize such conservation programs do participate at least once during their stay, we created a sign stating, “JOIN YOUR FELLOW GUESTS IN HELPING TO SAVE THE ENVIRONMENT. Almost 75% of guests who are asked to participate in our new resource savings program do help by using their towels more than once. You can join your fellow guests in this program to help save the environment by reusing your towels during your stay.”

We found the towel reuse rates were significantly higher in the descriptive norm condition (44.1%) than in the environmental condition (35.1%). That is, simply informing guests that the majority of other guests at the hotel had participated in the program motivated guests to reuse their towels to a greater extent than purely appealing to their concern for the environment.¹⁶

¹⁶ At first glance, there appears to be an important shortcoming to the descriptive normative approach in this study. Specifically, we informed participants that a large majority (75%) of the hotel’s guests participated in the towel reuse program—a number provided by the company that supplies such cards to hoteliers—yet the best-performing message yielded only a 44.1% participation rate. There are two reasons for this discrepancy that render this a less worrisome problem. First, in keeping with the data reported by the towel hanger suppliers, the signs in our study informed the guests that the majority of individuals recycled at least one towel sometime during their stay. Because we only examined the towel reuse data for participants’ first eligible day (the first day the room attendants visited their room), the compliance rate we observed is likely a fairly sizeable underestimation of the number of individuals who recycle their towels at least once during their stay. Second, we used the most conservative standards for counting compliance; that is, we did not count as a reuse effort a towel that was hung on a door hook or doorknob—a very common practice for towel recyclers who misunderstand or do not thoroughly read the instructions—as we wanted to eliminate the likelihood of guests complying unintentionally with the request. Thus, we believe the overall percentage of towel reuse was artificially suppressed.

In summary, two of the messages utilized in the second hotel study were the most common appeals that we have observed—the message that focused guests on basic environmental protection and the message that focused guests on cause-related marketing cooperation. Yet, the two normative messages, which were clearly more successful at eliciting participation in the conservation program, were two appeals that we have never observed in hotels—the message based on the norm of reciprocation, which informed guests that the hotel had already made a donation to an environmental cause on behalf of its guests, and the descriptive norm message, which informed guests that the majority of other guests at the hotel had in fact participated in the towel reuse program at least once during their stay.

Whose Descriptive Norms Do Individuals Follow?

To this point, we have described how individuals tend to adhere to the behavioral norms of others, but one central question remains to be addressed: Whose norms are individuals most likely to follow? A close examination of Leon Festinger's social comparison theory reveals that when making decisions under uncertainty, individuals tend to follow the norms of others who seem similar to them.¹⁴ That is, individuals look to others who not only share similar characteristics with them, but also who share or have shared the environment or circumstances in which the decision must be made.

Recall that the descriptive norm used in the study informed guests that similar others—that is, the majority of other guests who had previously stayed at the hotel—had reused their towels at least once during their respective stays. We decided to take the perceived similarity one step further by conducting another hotel study in which some occupants saw an appeal communicating the descriptive norm specifically for the guests

who had previously stayed in the occupants' rooms.⁴ Thus, in addition to the standard environmental appeal and the descriptive norm appeal used in the prior study, participants in this third condition read that "75% of the guests who stayed in this room (#xxx) participated in our new resource savings program by using their towels more than once. You can join your fellow guests in this program to help save the environment by reusing your towels during your stay."

Consistent with the previous study, the descriptive norm condition using the hotel's previous guests as the reference group yielded a higher towel reuse rate (44.0%) than did the standard environmental appeal (37.2%). More interesting, however, was the finding that the descriptive norm condition using the rooms' previous occupants produced an even higher towel reuse rate (49.3%) relative to the descriptive norm message that used guests, in general, as the reference group. Although one may argue that the difference between the rates of the two descriptive norm conditions is small, one would be hard pressed to find a manager who wouldn't take a nearly costless 10% increase in savings simply by choosing to consult the social psychological research when making such decisions.

At first, it may seem counterintuitive that guests would be more likely to follow the norms of those who previously stayed in their specific room than those who stayed in others rooms throughout the hotel. That is, from a purely logical standpoint, one should not exactly view the previous occupants of one's room in a positive light. After all, these are the same individuals who have, by simple virtue of staying in that room and potentially engaging in activities ranging from the mundane to the lascivious, played a part in reducing the quality of the room and its amenities for the current occupants. In

addition, there is no rational reason to believe that the behaviors of those previously occupying one's room are any more valid than the behaviors of those previously occupying the room next door, for example.

However, the social psychological literature points to some solutions to this puzzling state of affairs. First, sharing commonalities, even seemingly irrelevant ones, with another individual has been found in most cases to increase one's affinity toward that other person. For example, sharing the same birthday, fingerprint type, or physical space with another person has been found to induce surprisingly powerful feelings of affection between individuals.^{17,18} Second, although the other descriptive normative messages also seemed to convey the normative behavior of those who were in the same environment (i.e., that particular hotel), the room-based descriptive normative messages conveyed the normative behavior of a group of individuals who had been in an even more proximal environment—literally the exact same environment (i.e., that specific room) in which those participants were staying. And, as discussed earlier, it is generally most adaptive for one to follow the behavioral norms associated with the particular environment, situation, or circumstances that most closely match one's own environment, situation, or circumstances. Thus, individuals may develop this general tendency into a mental shortcut, which, like other mental shortcuts, can sometimes lead to judgments, decisions, and behaviors not entirely based on a logical analysis. The findings from this research suggest that communicators, policymakers, and managers implementing a

¹⁷ Jerry M. Burger, Nicole Messian, Shebani Patel, Alicia del Prado, and Carmen Anderson, "What a Coincidence! The Effects of Incidental Similarity on Compliance." *Personality and Social Psychology Bulletin*, Vol. 30, No. 1 (2004), pp. 35-43.

¹⁸ Jerry M. Burger, Shelley Soroka, Katrina Gonzago, Emily Murphy, and Emily Somervell, "The Effect of Fleeting Attraction on Compliance to Requests." *Personality and Social Psychology Bulletin*, Vol. 27, No. 12 (2001), pp. 1578-1586.

descriptive normative component to their persuasive appeals or information campaigns should ensure that the norms of the reference group are as situationally similar to the intended audience's circumstances as possible.

Conclusion

The hotel studies we conducted demonstrated that the normative messages, which were messages that we have never seen utilized by hotel chains, fared better at spurring participation in the hotel's environmental conservation program than did the types of messages most commonly used by hotel chains—those that focus on environmental protection and those that focus on cooperation through incentives. In addition to validating the motivation power of norms in a real-world setting with participants who had no idea that they were under study, these results highlight the utility of employing social science research and theory rather than communicator hunches, lay theories, or best guesses in crafting persuasive appeals.

In addition, the findings we discussed throughout this paper highlight the fact that basing policies and practices on social science research can often produce many benefits without increasing any costs. More generally, we hope that we have shown that the social psychological literature is so packed with applicable and cost-saving information that the executives, managers, and other practitioners who do seek out the information will find that they will hardly be able to close their briefcases.