

Testimony to the Subcommittee on Research and Science Education,  
House Committee on Science and Technology

At the hearing on:

*The Contribution of the Social Sciences to the Energy Challenge*

September 25, 2007

Robert B. Cialdini

Abstract

Social norms, which refer to what most people do (descriptive social norms) and what most people approve (injunctive social norms), are remarkably powerful in directing human action. Social science research has uncovered the most successful ways to incorporate norms into messages designed to produce socially desirable conduct.

Studies in several environmental contexts (e.g., home energy conservation, household recycling, hotel conservation efforts) show that (1) energy users severely underestimate the role of social norms in guiding their energy usage, (2) communications that employ social norm-based appeals for pro-environmental behavior are superior to those that employ traditional persuasive appeals, and (3) even though these highly effective social norm-based appeals are nearly costless—requiring no large technological fixes, tax incentives, or regulatory changes—they are rarely (and sometimes mistakenly) delivered.

## Biography of

### Robert B. Cialdini, Ph. D.

Robert B. Cialdini is Regents' Professor of Psychology and Marketing at Arizona State University, where he has also been named W. P. Carey Distinguished Professor of Marketing. He has taught at Stanford University and Harvard's Kennedy School of Government. He has been elected president of the Society of Personality and Social Psychology. He is the recipient of the Distinguished Scientific Achievement Award of the Society for Consumer Psychology, the Donald T. Campbell Award for Distinguished Contributions to Social Psychology, and the (inaugural) Peitho Award for Distinguished Contributions to the Science of Social Influence.

Professor Cialdini's book *Influence: Science and Practice*, which was the result of a three-year program of study into the reasons that people comply with requests in everyday settings, has sold over a million copies while appearing in numerous editions and twenty-two languages.

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Robert B. Cialdini,  
Regents' Professor of Psychology and Marketing  
Arizona State University.

Chairman Baird, Ranking Member Ehlers, and Members of the Subcommittee, it is my pleasure to be here today to testify on the Contribution of the Social Sciences to the Energy Challenge. I believe that the social and behavioral sciences do indeed hold tremendous potential to influence individual and collective behaviors effecting energy conservation, providing that we understand how to craft the message.

Here's why. It is standard practice when advocating for action among policymakers (e.g., legislative or other governmental officials) to emphasize the breadth of a problem. And, that makes sense because policymakers can be expected to provide additional resources or regulations to address those abuses that appear to them most widespread. However, a different—and even opposite—logic may apply when communicating with the *public* about a problem. To understand that logic, consider the following incident.

Not long ago, a graduate student of mine visited the Petrified Forest National Park in Arizona with his fiancée—a woman he described as the most honest person he'd ever known, someone who had never taken a paperclip or rubber band without returning it. They quickly encountered a park sign warning visitors against stealing petrified wood, “OUR HERITAGE IS BEING VANDALIZED BY THE THEFT OF 14 TONS OF WOOD EVERY YEAR.” While still reading the sign, he was shocked to hear his fiancée whisper, “We'd better get ours now.”

What could have spurred this wholly law-abiding young woman to want to become a thief and to deplete a national treasure in the process? I believe it has to do with a mistake that park officials made when creating that sign. They tried to alert visitors to the park's theft problem by telling them that many other visitors were thieves.

In so doing, they stimulated the behavior they had hoped to suppress by making it appear commonplace—when, in fact, less than 3% of the park’s millions of visitors have ever taken a piece of wood.

Park officials are far from alone in this kind of error. Those responsible for developing and enforcing public policy blunder into it all the time. Teenage suicide prevention programs inform students of the alarming number of adolescent suicides and, research shows, cause participants to become *more* likely to see suicide as a possible solution to their problems. When publicizing cases of school violence, news outlets assemble accounts of incident after incident and, in the process, spawn the next one. During prominently announced crackdowns on the problem, government officials decry the frequency of tax evasion and, as demonstrated by one follow-up study, increase tax cheating the next year (Kahan, 1997). Although their claims may be both true and well-intentioned, the creators of these information campaigns have overlooked something basic about the communication process: Within the lament “Look at all the people who are doing this *undesirable* thing” lurks the powerful and undercutting message “Look at all the people who *are* doing it.” And, one of the fundamental lessons of human psychology is that people follow the crowd. I am concerned that this point is being missed in our attempts to communicate the importance of environmental protection and energy conservation within our communities.

I think there is a better way to proceed. We need be diligent in making clear to the public that many unwelcome actions are performed by a small minority of the population. For instance, let’s consider the case of littering. Few citizens litter with any frequency; most take care to preserve the environment. The key to an enlightened public

policy approach to litter is to deliver the message that *even one* abandoned newspaper can spread to despoil a pristine park or beach, that *even one* cigarette butt flipped from a car can ignite a devastating fire, that *even one* carelessly discarded plastic container can endanger wildlife, and, most important, that *even one* piece of litter can begin an accumulation that creates the mistaken—but contagious—impression that we all litter. It's not even remotely true that we are a nation of despoilers, and we shouldn't be misled into believing that it is. Instead, armed with the knowledge that, as a citizenry, we do care about our environment, we should focus on marginalizing the few who don't care.

Would such an approach work in other environmental arenas? My colleagues and I at Arizona State University have done research indicating that it well might. At the Petrified Forest, we erected a pair of signs in different areas. The first urged visitors not to take wood and depicted a scene showing three thieves in action. After passing that sign, visitors became over twice as likely to steal than before! Our other sign also urged visitors not to take wood, but it depicted a lone thief. Visitors who passed it became nearly half as likely to steal than before (Cialdini, 2003). I believe that this lesson applies to other forms of environmental offenses such as energy wastage. The secret is to avoid validating the deviant actions of a small minority of wrongdoers by making them appear the rule rather than the exception. Otherwise, we assure that a few rotten apples will spoil the barrel.

In addition, we should be sure to raise the profile of the majority that does act pro-environmentally, because that spurs others to follow suit. For instance, with our students, my fellow environmental researcher, Wes Schultz of California State University-San Marcos, and I obtained support from the William and Flora Hewlett Foundation to study

how descriptive social norms (the perception of what most people do in a situation) can influence energy conservation decisions. Our survey of nearly 2,500 Californians showed that those who thought their neighbors were conserving were more likely to conserve themselves. But, at the same time, almost all of the survey respondents underestimated the conservation efforts of their neighbors. In a follow-up study, we placed door hangers on the doors of San Diego-area residents once a week for a month. The door hangers carried one of four messages, informing residents that (1) they could save money by conserving energy, or (2) they could save the earth's resources by conserving energy, or (3) they could be socially responsible citizens by conserving energy, or (4) the majority of their neighbors tried regularly to conserve energy—information we had learned from a prior survey. We also include a control group of residents in the study whose door hanger simply encouraged energy conservation but provided no rationale. Even though our prior survey indicated that residents felt that they would be least influenced by information regarding their neighbors' energy usage, this was the only type of door hanger information that led to significantly decreased energy consumption, almost 2 kWh/day (Nolan, Schultz, Cialdini, Goldstein, & Griskevicius, 2007). This suggests a clear way to increase conservation activity—by trumpeting the true levels of conservation that are going unrecognized.

To investigate this idea, we examined resource conservation choices in upscale hotel rooms, where guests often encounter a card asking them to reuse their towels. As anyone who travels frequently knows, this card may urge the action in various ways. Sometimes it requests compliance for the sake of the environment; sometimes it does so for the sake of future generations; and sometimes it exhorts guests to cooperate with the

hotel in order to save resources. What the card *never* says, however, is that (according to data from the Project Planet Corporation that manufactures the cards) the majority of guests do reuse their towels when given the opportunity. We suspected that this omission was costing the hotels—and the environment—plenty.

Here's how we tested our suspicion. With the collaboration of the management of an upscale hotel in the Phoenix area, we put one of four different cards in its guestrooms. One of the cards stated "HELP SAVE THE ENVIRONMENT," which was followed by information stressing respect for nature. A different card stated "HELP SAVE RESOURCES FOR FUTURE GENERATIONS," which was followed by information stressing the importance of saving energy for the future. A third type of card stated "PARTNER WITH US TO HELP SAVE THE ENVIRONMENT," which was followed by information urging guests to cooperate with the hotel in preserving the environment. A final type of card stated "JOIN YOUR FELLOW CITIZENS IN HELPING TO SAVE THE ENVIRONMENT," which was followed by information that the majority of hotel guests do reuse their towels when asked. The outcome? Compared to the first three messages, the final (social norm) message increased towel reuse by an average of 34% (Goldstein, Cialdini, & Griskevicius, 2007).

Two things are noteworthy about the results of the hotel study. First, the message that generated the most participation in the hotel's towel recycling program was the one that no hotel (to our knowledge) has ever used. Apparently, this simple but effective appeal didn't emerge from a history of trial and error to become a hotel "best practice." Instead, it emerged from a scientifically-based understanding of human psychology. This points out the need to call on social scientific research in a systematic fashion to help

advance sound environmental policy. For instance, in case of hotel conservation programs, the average 150-room hotel would save 72,000 gallons of water, 39 barrels of oil, and would obviate the release 480 gallons of detergent into the environment in the course of a year if guests complied with the requests.

The second notable aspect of the hotel study was that the significant increase in program participation was nearly costless. In most cases, for an organization to boost effectiveness by 34%, some expensive steps have to be taken; typically, organizational structure, focus, or personnel must be changed. In this instance, however, none of that was necessary. Rather, what was required was a presentation of the facts about the preferred behavior of the majority.

## Conclusion

In sum, when communicating with the public, it is important to avoid trying to reduce the incidence of a damaging problem by describing it as regrettably frequent. Such an approach, while understandable, runs counter to the findings of social science regarding the contagiousness of social behavior, even socially harmful behavior. Moreover, often, the problem under consideration is not widespread at all. It only comes to seem that way by virtue of a vivid and impassioned presentation of its dangers. Instead, it would be better to honestly inform our audience of the environmental peril resulting from even a small amount of the undesirable conduct. Furthermore, when most people are behaving responsibly toward the environment, we'd be less than responsible ourselves if we failed to publicize that fact, as the social science evidence is plain that the information will serve both to validate and stimulate the desired action.

## References

- Cialdini, R. B. (2003). Crafting normative messages to protect the environment. *Current Directions in Psychological Science, 12*, 105-109.
- Goldstein, N., Cialdini, R. B., & Griskevicius, V. (2006). *A room with a viewpoint: Using norm-based appeals to motivate conservation behaviors in a hotel setting*. Manuscript currently under review.
- Kahan, D. (1997). Social influence, social meaning, and deterrence. *Virginia Law Review, 83*, 349-395.
- Nolan, J. M.. Schultz, P. W., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2007). *Normative influence is underdetected*. Manuscript currently under review.

August 27, 2007

Brian Baird  
Chairman,  
Subcommittee on Research and Science Education  
Committee on Science and Technology  
United States House of Representatives  
Washington, DC

Dear Chairman Baird:

I am writing to provide financial disclosure relative to my testimony at your Committee hearing on *The contribution of the social sciences to the energy challenge*, scheduled for September 25, 2007.

In that regard, I have recently (as of August 1, 2007) formed a consulting relationship with a company, Positive Energy, Inc., that offers data processing and customer communication services to power companies and utilities. The business of Positive Energy is to contract with power companies and utilities to send reports to their customers that provide (a) information regarding the customers' energy usage relative to the average of their neighborhood and (b) tips for reducing energy consumption.

My financial associations with Positive Energy are as follow:

1. Compensation for consulting services at the rate of \$200/month for one year.
2. The option to purchase 128,500 shares of company stock (at \$0.57866/share) over the next 48 months. For each of the first 11 months, 9,375 shares will be vested. On the twelfth month, 13,375 shares will be vested. On months 24, 36, and 48, 4,000 shares will be vested.
3. An investment of \$40,000 in the form of company stock.

I have no other known financial involvements that are related to my testimony.

Sincerely,



Robert B. Cialdini