

















LESSONS LEARNED

Concepts from Behavioral Science | Things We Learned the Hard Way



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CONCEPTS FROM BEHAVIORAL SCIENCE

Trash Shouldn't Splash was developed together with undergraduate students enrolled in multiple SEA Semester programs who interrogated behavioral science literature for guidance in developing the behavior change campaign. A reference library was compiled in Zotero (www.zotero.org) with more than 200 entries, including annotated bibliography entries for more than 70 academic journal articles.

This segment of the toolkit includes a description of concepts from behavioral science specifically focused on environmental problems that we found useful during our campaign development. It is not a comprehensive or critical review of the academic literature. The major contributors to this section are Emily Dailey (*Trash Shouldn't Splash* summer intern and SEA Semester class S-278) and students of SEA Semester classes C-269, C-270, S-270, S-271, C-273, S-276, and S-277.

Social Norms

Descriptive Norms: Descriptive norms are implied social rules that can influence behavior because people tend to do what they think other people are doing.

Injunctive Norms: Injunctive norms are implied social rules about what individuals perceive that they should do as a result of what others do.

When targeting those who are already concerned about marine debris but who are not acting in accordance with their concern, it may be effective to make use of descriptive social norms by highlighting actions that others are taking, such as recycling, carrying reusable straws, participating in beach cleanups, using reusable grocery bags, etc., (Doherty and Webler, 2016; Schultz *et al.*, 2015).

It is important to frame using the desired behavior, such as using reusable items, as the "new norm" rather than framing undesirable behavior, such as using single-use plastics, as a "negative norm". People make unconscious efforts to fulfill norms, whether positive or

negative, so even discussing a negative norm could unintentionally encourage people to carry out this undesired behavior. For example, in trying to increase recycling rates, instead of saying "most people don't recycle, you should be the change in your community because recycling is important," you could say, "more and more people are recycling in your community – you can be part of this new movement" (Schultz *et al.*, 2016).

Attitudes, Beliefs and Behaviors

Cognitive dissonance: Cognitive Dissonance is the process by which a person discovers they have inconsistencies in their attitudes, beliefs, and behaviors, creating internal discomfort. In order to alleviate this discomfort they may change any of their attitudes, beliefs, or behaviors to become consistent.

Induced-Hypocrisy Paradigm: The Induced-Hypocrisy Paradigm describes the process of making people aware of behaviors they exhibit that do not align with their attitudes and beliefs, in hopes that they will change their behavior to match their attitudes and beliefs.

Cognitive dissonance and the Induced-Hypocrisy Paradigm may help in the design of strategies to change behavior in people that already have pro-environmental attitudes and beliefs. It is very important to ensure that people do not feel attacked when such inconsistencies in their beliefs and behaviors are revealed. It is also important to provide manageable steps towards changing behavior to prevent the person from becoming overwhelmed and, instead, changing their attitudes and beliefs to match their behavior (Priolo *et al.* 2016).

Theory of Planned Behavior: This theory states that whether or not a person engages in a particular behavior relies on the person's attitude toward the behavior, subjective norms regarding the behavior, and the person's perceived control over that behavior. For example, to increase a person's likelihood of recycling, instilling a positive attitude towards recycling (e.g., recycling is a good thing to do), conveying subjective norms that promote recycling (e.g., my friends and neighbors all think that I should recycle), and ensuring that the person has the resources to recycle (e.g., that they have access to recycling collection facilities) will increase their likelihood of recycling.

Reactance: Reactance occurs when a person feels that their choices or freedoms have been limited or taken away, resulting in a negative or uncooperative reaction (Mallett and Melchiori, 2016).

Additional Concepts

Habit Discontinuity Hypothesis: This hypothesis suggests that when people experience major life interruptions or changes (e.g., moving, marriage, birth of child, new school, etc.), they are better able to establish new habits. When promoting the replacement of single-use plastic products with reusable alternatives, which requires setting new habits, interventions may be most successful if messaging is targeted at people experiencing major changes (Verplanken and Roy, 2015). For example, if presenting *Trash Shouldn't Splash* to a middle school audience, it

would be best to introduce new recommended actions at the beginning of the school year, and might be most influential for first year middle school students who are adjusting to a new environment and forming new habits.

Positive and Negative Spillover: Spillover occurs when a person feels satisfaction at completing a pro-environmental behavior and either: 1) Completes another pro-environmental behavior – positive spillover, or 2) Feels like they have earned the "right" to make an environmental transgression – negative spillover. Once someone has completed a pro-environmental action, such as participating in a beach cleanup, positive spillover can be promoted by suggesting other pro-environmental behaviors that use similar resources (Margetts and Kashima, 2016). Negative spillover might be avoided by first praising the participants and then noting that, although beach cleanups are important, preventing future beach litter is the ultimate goal, which can be achieved by reducing use of single-use items that account for much of the trash found on the beach (Lin and Chang, 2017).

Emotional Appeals: Emotional appeals attempt to evoke an emotional response in the person that will encourage them to take pro-environmental actions. This may be most effective when a positive emotional response, such as pride in a pro-environmental action, is associated with a positive descriptive social norm, which may encourage further pro-environmental behaviors (Bissing-Olson *et al.*, 2016).





THINGS WE LEARNED THE HARD WAY

Listed below are some important take-away lessons we learned while developing *Trash Shouldn't Splash*:

- Before trying to change people's behavior and habits, you must first understand the *driving* factors underlying the behavior you wish to change, as well as the *obstacles* to changing those behaviors. We gathered this kind of information through our public survey, and by having open and honest conversations with students, business owners and employees, and residents of and visitors to our town.
- Involve kids! People listen to kids-with-a-cause more than adults-with-a-cause, and kids can be passionate and energetic team members.
- Utilize a variety of outlets and make use of personal connections to reach a wide audience.
 For example, if you have or know schoolchildren, reach out to their teachers to arrange
 classroom visits. Contact leaders of Girl/Boy Scout troops, or other local school groups, to
 ask if they would like to arrange a visit. Reach out to local media outlets (newspaper, TV),
 whose coverage may result in dissemination of the program and its messages to a broad
 local audience.
- It is important to know your audience, and to customize your communication for that audience. For example, we learned quickly that many food service businesses in our town had already chosen to replace traditional single-use plastic utensils with a commonly available compostable plastic alternative. However, few understood that these items fully biodegrade only in an industrial composting facility. In this case, the business owners/managers had already demonstrated an environmental awareness, yet didn't always have the most accurate information about the potential environmental impacts of the products they had chosen.
- Even if food service businesses are eager to partner with Trash Shouldn't Splash, it can be a
 slow process to see substantial and lasting changes. Some of the easiest actions for
 restaurants to take are to provide straws only upon request, and to hang Trash Shouldn't
 Splash signage. This may be a good place to start while you engage with them on more
 complex tasks such as research into alternative materials, or redesigning waste collection in
 their businesses.

• When describing *Trash Shouldn't Splash*, we found it important to emphasize that it is a plastic waste reduction program, specifically focused on reducing single-use items that quickly become waste. *Trash Shouldn't Splash* is not an advocacy organization lobbying for bans on particular items, such as plastic straws or bags. The goal is to inspire people to assess their personal use of single-use plastics and consider changing their habits, not to tell people what they can or cannot do, or to limit their individual choices.

