Faculty of Life and Physical Sciences

The Social Marketing of Sustainability: A Psychological Perspective

UWA Sustainable Development Summer Scholarship
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The University of Western Australia has a vibrant sustainability program. Initiatives currently in place aim to improve both the infrastructure of the University and the way that members of the University community use resources in order to work towards the goals of an environmentally, economically and socially sustainable campus. A need for improved communication of achievements and ongoing initiatives to staff, students and faculty has been identified, with the hope of increasing engagement in sustainability around the University. Social marketing, which approaches behaviour change as product which must be “sold” to the audience, is a communication model which has grown increasingly popular in recent years (Selling sustainability: Seven lessons from advertising and marketing to sell low-carbon living, 2008). Communications are designed to take into account the current behaviours and attitudes of the audience, the barriers that stand in the way of behaviour change and the reasons why competing behaviours are currently being chosen. An understanding of the psychology of human behaviour is vital in order to best respond to each of these influences.

This guide is designed to identify key factors to consider when creating social marketing communications, taking into account findings from psychological research. The sections reflect the steps of the persuasion process. First, the aim of the communication should be considered and the target audience identified. In order to be effective, the communication must capture audience attention. The perceived source of the communication will influence how much stock the audience places in the contents of the message, so this must be managed to maximize credibility. The way that the message itself is framed should also be carefully considered, as the same message can have very different effects on attitudes and behaviour depending on how it is presented. In order for long-term change to be achieved, the message must be well-remembered, and easily recalled in relevant situations. Finally, changes in attitudes and beliefs must be translated into action, a more difficult feat than it may first appear.

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Identifying the Aims of Communication

The first thing to consider is the intended aim of the communication. In some cases this may be obvious – for instance, when encouraging staff and students to take part in a cycle-to-uni event. In other cases, the message might be about what has been achieved “behind the scenes” at the University. The perceived motivation behind such a message must be carefully considered if it is to be attended to and absorbed by its intended audience. The audience is likely to ask “why are they telling me this?” The public is constantly exposed to large quantities of greenwashing from companies trying to project an environmentally friendly image. Forty-four percent of respondents to the 2010 Greendex survey stated that “Companies [making] false claims about the environmental impact of their products” was the factor that most discouraged them from becoming more environmentally active (Greendex 2010: Consumer Choice and the Environment – A Worldwide Tracking Survey, 2010). With such frequent misleading messages, audiences are less ready to trust the intentions of companies and organizations presenting a green image (Furlow, 2010). If they believe that the answer to the “why” question is “to make the university look good,” people are less likely to take the contents of the message seriously.

By creating the idea of a united community that values sustainability, messages about behind-the-scenes achievements can be used to build powerful social norms that encourage recipients to alter their own behaviour. People are more likely to value sustainable behaviour and to act sustainably if they believe that their peers do the same (Goldstein, Cialdini, & Griskevicius, 2008; Nolan, Schultz, Cialdini, Goldstein, & Griskevicius, 2008; Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007). They will also respond more favourably to requests to change their behaviour when they believe that those making the requests are also making changes – that those requests are fair (Selling sustainability: Seven lessons from advertising and marketing to sell low-carbon living, 2008). Ideally messages about the University’s gains in sustainability should aim to communicate the value that the University community places on sustainability and the effort it is willing to make to pursue that goal.

To give a clear answer to the “why are they telling me this?” question, the promotion of a behind-the-scenes achievement can be tied to a specific request for behaviour. For instance, information about a recent saving in water use might be accompanied by a reminder that turning off taps will help to reduce water use even further. This increases the relevance of the message to the reader, making them more likely to absorb and remember it (Symons & Johnson, 1997). The purpose of the communication is also made clear – “they are telling me this to encourage sustainable behaviour in the university” – improving the credibility of the message.
• Aim to show that sustainability is important to the University as a whole.
• Tie information about what the University has achieved to requests for related behaviour from the audience.

Identifying and Appealing to the Target Audience

Once the aim of the message has been decided, the target audience for the message must be identified. For example, a message about reducing the use of bottled water might be better directed at students, who frequently move between buildings during the day and take water with them, than staff, who have greater access to kitchens with filtered water. It is important to be as clear as possible about who this audience is, as different groups will respond in different ways to a message and may require specific communication techniques (Swim et al., 2009). Individuals will also differ in their levels of interest in and engagement with sustainability, and in the barriers that prevent them from taking action in a particular domain (McMakin, Malone, & Lundgren, 2002).

Ideally, surveys of the UWA community should be used to identify the range of attitudes towards each sustainability-related behaviour and the obstacles to behaviour change experienced by different groups within the community. Focus groups or interviews may be helpful in identifying unexpected barriers to action. For instance, community consultation in a military community power-saving initiative revealed that occupants of a particular model of house were unable to turn down the temperature on their water heaters because of nearby high-voltage wires (McMakin, et al., 2002). This made messages about reducing the temperature ineffective for this group of the target population, however willing they might have been to reduce energy use.

Political and ideological views held by the target audience should also be considered. People tend to judge information to be more reliable if it agrees with the beliefs they already hold (Gentzkow & Shapiro, 2010; Lord, Lepper, & Preston, 1984; Lord, Ross, & Lepper, 1979). If they already value sustainability, they are likely to take messages promoting sustainable behaviours on board. However, those who are actively opposed to the concept of sustainability may seek to actively defy pro-sustainability messages. In an analysis of one US initiative, researchers found that while registered Democrats on average responded to a pro-environmental “nudge” by decreasing energy use, Republicans actually tended to increase energy use following the message (Costa & Kahn, 2010). If an audience segment is revealed to be anti-sustainability, it may be helpful to rephrase messages directed
at that segment in terms which do not directly contradict those values, for instance by appealing to a monetary saving. This should help to reduce the likelihood of a defiant reaction (Maibach, Roser-Renouf, & Leiserowitz, 2008; Nisbet, 2009). This approach should only be used if the anti-sustainability audience segment can be targeted exclusively. There is evidence that providing individuals who do value environmental responsibility with reasons for a behaviour other than its environmental significance may limit or reduce their adoption of other pro-environmental behaviours (Thøgersen & Crompton, 2009).

Capturing Audience Attention

In order for a communication to be effective, it must generally be attended to in order to allow further processing. Attention is a limited resource – human beings cannot simultaneously attend to everything around them – so the message should be designed to capture and hold the attention in order to compete with surrounding inputs (Davenport & Beck, 2000). A brief summary of some relevant findings in the area of visual attention will be provided here.

Visual attention is most easily captured by objects which differ from their surroundings on a basic perceptual level. Characteristics which can most easily guide attention include colour, orientation, size, motion and depth. More complex characteristics, such as the difference in the arrangement of the intersection of lines in the letters “T” and “L”, take longer to process and do not immediately guide attention (Wolfe & Horowitz, 2004).

Feared stimuli also tend to quickly capture the attention – for instance, an image of a spider will generally capture the attention faster than an image of a flower (Ohman, Flykt, & Esteves, 2001). However, care should be taken in using fear to draw attention to a message, as it can affect the way that the message is processed, as discussed later in this guide.

Researchers have also specifically examined visual attention in social marketing and advertising communications. Pieters and Rosbergen (1996) found that when exposed to a communication repeatedly, the viewer’s attention will tend to drop off quickly, with severely reduced attention paid to the communication by the third exposure. However, if the communication is original – if it deviates from what the audience expects of communications relating to that domain – then as well as garnering higher overall levels of attention, the communication will actually be attended to more as it becomes more
familiar, at least to the third viewing (Pieters, Warlop, & Wedel, 2002). Making a communication creative and different may therefore provide the time for it to be better processed.

The various elements generally used in visual advertisements – text, images and brands – tend to capture attention differently from one another. An experiment monitoring the eye movements of participants viewing full-page advertisements (Pieters & Wedel, 2004) found that overall, pictorial elements were best at capturing attention independent of their surface size, but that increasing the size of the text element tended to most increase attention to the ad as a whole. Brand elements best transferred attention to the rest of the ad – an eye-catching brand increased the amount of attention paid to the other elements. The authors used these findings to suggest that in general, increasing the size of the pictorial element of an ad at the expense of the text will actually reduce overall attention capture; the loss due to the reduced text is not made up for by the increase in picture size. In fact, Singh et al. (2000) have demonstrated that removing four pages of images from an eight-page communication does not reduce memory for or attitudes towards the intended message.

- Attention is a limited resource, so communications must compete to capture it.
- In general, objects which differ from their surroundings in the basic characteristics of colour, orientation, size, movement and depth will tend to draw visual attention.
- Feared objects capture attention easily, but fear in social marketing should be used with caution.
- With each subsequent viewing of a communication, attention tends to drop. However, if the message is presented in an original, convention-breaking way attention can be kept high for the first few repetitions.
- Increasing the size of the text element of a visual communication tends to increase overall attention more than increasing the size of a picture, so don’t use too many images at the expense of text.
- Strong, eye-catching brands tends to increase attention paid to other elements of the communication, so don’t be afraid to use bold branding.

**Positioning the Perceived Source of the Message**

When processing a communication, the audience will consider not only what the message says but also who it comes from. Messages are more likely to be believed and acted on if they come from a credible
source, particularly if the audience had difficulty assessing the quality of the message for themselves (Heesacker, Petty, & Cacioppo, 1983). Credibility is particularly important if the aim is to change opinions. If people do not view the source of a message as credible, they are likely to reject opinions which differ substantially from their own (Aronson, Turner, & Carlsmith, 1963). The more credible the source, the further people are willing to contemplate change.

One of the key factors influencing perceived credibility is expertise – people are far more likely to trust a message from an expert in the field, and if two contradictory positions are presented will tend to side with the expert source over one with little expertise (Olson & Cal, 1984). Where possible, emphasize the expert source of your message – for instance, that the message originates from a sustainability committee, or that its claims are based on scientific findings.

Authority also increases perceived credibility (Sundar, 2008). Making it clear that a message is coming from within the University is likely to increase trust in that message. Advertising any official support received from those in positions of authority in the university may also increase acceptance of the message (Edelstein, 2004; Franz-Balsen & Heinrichs, 2007; Jenks-Jay, 2004).

There is some evidence that the credibility of a source has to be established before the message is received in order to affect persuasiveness. Ward and McGinnies (1974) found that credibility had no effect on persuasiveness if it was revealed after the message was read, while a meta-analysis by O’Keefe (1987) suggests that post-message credibility statements still affects persuasiveness, but to a much smaller degree than pre-message statements. It is possible that credibility affects persuasiveness in different ways if presented before or after a message. Tormala, Briñol and Petty (2006) suggested that once a person has established thoughts about a message, the credibility of the source will either weaken or strengthen their confidence in those thoughts. This was supported by their finding that citing a more credible source after communication strengthens an already strong message, but makes a weak message even less persuasive. In order to avoid the risk of high credibility backfiring in this way, credibility should always be established early in a communication.
It is often particularly challenging for individuals to judge the quality of information found online, as important factors such as the author and time of writing are rarely given and facts are often repeated by a series of different sources, making the original source unclear. For these reasons, audiences may use a number of special cues to judge message credibility when viewing online information. Researchers at the Media Effects Research Laboratory at Penn State University have identified a number of cues used by young people to quickly assess credibility online. (Sundar 2008)

1. Text-and-picture sites are seen as more credible than those employing audiovisual techniques – this may be because of an association with newspapers, which are seen as more credible than television or radio.

2. Flashy presentation incorporating novel technologies (e.g. Voice control, augmented reality) may be interpreted in two ways. If the content is of a high standard, the “coolness” of the presentation increases credibility. However, if the content is noticeably lacking relative to the presentation style, providing insufficient depth or relevance of information, the sense of “all style and no substance” will hurt overall credibility.

3. Information recommended by other users is often viewed as more credible. This is where tools such as Facebook may be particularly useful, as users can “like” a particular message and recommend it to friends.

4. Sites which require that the user be more active when finding information seem more dynamic, increasing judged credibility.

5. Users presented with a lot of choice in accessing information (for instance, though extensive interactive menus) are more likely to view the source as credible. However, this effect is undone if information is rambling or difficult to locate, as a lot of choice only emphasizes these difficulties.

6. Well-organised information is generally seen as more credible. Obvious and useful navigation aids suggest that the designer wants to help the user, increasing their perceived trustworthiness.

Several more superficial characteristics of the communication source can also affect the persuasiveness of the message. People respond better to those individuals that they like, either because they associate that liking with the message or because it makes them more willing to consider the arguments behind it.
(Myers, 2008). One aspect of liking is physical attractiveness – people are more easily persuaded by an attractive communicator than an unattractive one, so adding a pretty face to a message can make it more effective (Chaiken, 1979). Using an attractive communicator is especially effective when the message is an emotional one (Pallak, Murroni, & Koch, 1983). People also tend to prefer and be persuaded by familiar faces (Burger, Soroka, Gonzago, Murphy, & Somervell, 2001). Having some members of the intended audience promote the message to others is one way of making use of these findings. In one such campaign, asking selected residents to promote recycling to their neighbours increased overall recycling to 28%, versus only 12% when information about recycling was provided through a doorstep drop (Burn, 1991; Hopper & Nielsen, 1991).

Communicators who are similar to oneself also tend to be more persuasive (Burger, et al., 2001), especially if the resemblances between communicator and message recipient are ones which the recipient does not view as common to most people (Burger, Messian, Patel, del Prado, & Anderson, 2004). Sometimes expertise and similarity are mutually exclusive – first-year students are not likely to have as much in common with scientific experts as they would with fellow students, for instance. When deciding whether to maximize expertise or similarity, consider whether the message is trying to communicate a fact or change a preference. Goethals and Nelson (1973) found that similarity only increases persuasiveness when the issue is one of preference or values – we want to like the same things that our closest peers like. When the issue is one of fact, similarity is not an advantage (and may actually be a disadvantage), so expertise will be more persuasive. An image of a student expressing how easily recycling paper fits into their day is likely to persuade students to follow suit, but if the message were about atmospheric processes an image of a scientific expert might be more appropriate.

- Convince the audience that the message comes from a credible source. Where possible, emphasize that the message has been written by or is based on the work of experts.
- Make it clear that the message comes from the University and advertise support from those in positions of authority.
- When communicating information online, build credibility cues into the presentation style as well as the message (see box above).
• Use likeable communicators – people who are attractive, familiar, or similar to the intended audience. Remember that if the message is purely fact-based, an expert communicator may be more effective than one who closely resembles the audience.

**Framing the Message**

The way that information is presented can radically alter how individuals respond to it. In a classic example, Tversky and Kahneman (1981) found that by phrasing a medical intervention problem in terms of either lives lost or lives saved, they could radically change preferences for two different treatment options. Depending on the way the problem was framed, support for an option could be increased from one-quarter to three-quarters. The following section describes how to use both cognitive and emotional framing to increase the persuasiveness of a message.

**Cognitive**

Persuasive messages are processed in one of two ways. If the message is processed with little conscious thought, using only mental shortcuts (e.g. “the poster looks good, they must know what they’re talking about”), processing is said to be peripheral. If processing is based on reasoned consideration of the arguments presented, it is termed “central”. Central processing has been shown to lead to longer lasting attitude and behaviour change (Verplanken, 1991), so where possible the audience should be encouraged to think about the message being presented and reason through the arguments. Distracted audiences are more likely to use peripheral processing (O’Keefe, 2002; Petty, Wells, & Brock, 1976), so it is best to get the audience’s undivided attention. The use of rhetorical questions in a message also encourages deeper, more considered processing (Swasy & Munch, 1985).

Perceived distance from an outcome will affect an audience’s interest in and response to messages about sustainability. People have an inherent bias towards the present; outcomes, both good and bad, tend to seem more important the sooner they are expected to occur (Lowenstein & Prelec, 1992). If people don’t expect to see the impacts of their behaviour until the distant future, they are less likely to weigh those impacts into their decisions (Hardisty & Weber, 2009), and may disregard messages about that behaviour (Kazdin, 2009). The same effect can be seen in space – the greater the physical distance of an outcome from the audience, the less important it will seem (Norgaard, 2006). Norgaard (2009)
recommends linking local events to global phenomena to reduce the effect of physical distance, and describing future outcomes as they will occur at a specific time in a specific place to make them easier to visualize and so less distant-seeming.

Initial acceptance of a message is also affected by message fluency. If a message flows easily off the tongue (or through the mind) it will seem more believable (McGlone & Tofighbakhsh, 2000). Wording a message so that it rhymes or has a strong rhythm is an easy way to take advantage of this effect. Fluency increases with familiarity, so repeating a message will make it more effective. For this reason, it is important not to inadvertently increase the believability of unwanted ideas by repeating them. Some campaigns seek to dispel common myths by stating them and then debunking them. However, just reading the undesirable statement can make it seem more likely to be true, even if it is immediately contradicted (Skurnik, Yoon, Park, & Schwarz, 2005) – what the audience will remember later depends on how easily that statement comes to mind.

Bearing this in mind, it is still important to deal with possible counterarguments when giving a message. If obvious objections to a message are ignored, the communication can seem biased or ill-considered and is more likely to be doubted by the audience (Jones & Brehm, 1970; Lumsdaine & Janis, 1953). Simply presenting the counterarguments won’t strengthen the message (O’Keefe, 2002) - they must be refuted. To avoid the fluency problems discussed above, refute the objection outright. For instance, rather than outlining the myth that states that turning a light on uses more power than turning it off, then explaining why that isn’t true, a good message would state that “switching off lights when you leave a room will always save more power than it takes to turn them on again.” This way the counterargument is dealt with but not strengthened.

• Try to make the outcomes of behaviour seem less distant, both in time and space.
• Engage effortful ‘central’ processing with reasoned arguments and rhetorical questions.
• Seek the audience’s undivided attention.
• Use rhythm, rhyme and familiarity to make a message flow off the tongue.
• Avoid repeating unwanted statements or mistaken beliefs, even to debunk them – it will make them seem more believable.
• Tackle any counterarguments to the message by refuting them outright.
Emotional

Care must be taken when using fear or guilt to motivate people. Negative messages can be attention-grabbing and can scare people into action (Witte & Allen, 2000). However, there is also the risk that they will make people feel so hopeless that they try to deny or ignore the problem in order to minimize the negative feelings it causes (Norgaard, 2009). When people feel threatened and without control, as when faced with a huge and unmanageable problem, they are pushed to improve their self-esteem. Often this is achieved through increased materialism (Kasser & Sheldon, 2000). For people who derive their self-esteem from the environment the threat may increase environmental concern, but those who do not will likely become less interested in protecting the environment when they feel threatened (Vess & Arndt, 2008). Campaigns that make people feel good about themselves are much less risky.

However, in some cases it may be impossible to avoid a negative message. If a campaign must use fear, it is important to stop the audience from feeling overwhelmed or powerless. By enhancing the audience’s sense of self-efficacy – their belief in their own ability to rise to the challenge – the paralysing effects of fear can be avoided (Maibach, et al., 2008). Following a meta-analysis of fear campaigns in public health, Witte and Allen (2000) recommend identifying specific responses to the problem and emphasizing that they are achievable and effective. Any barriers to performing the response should be identified and addressed directly to reduce the sense of helplessness.

- Try to avoid too much negative emotion – if people feel that a situation is hopeless, they will try to reduce the unpleasant feelings by ignoring it.
- If you need to use fear, make sure that you also increase the audience’s self-efficacy by giving them specific actions that will help and making those actions seem as achievable as possible.

Ensuring the Message is Remembered

For a communication to be useful, its message must be remembered beyond the initial exposure. Recall of a message can be enhanced through considered use of phrasing, imagery and emotion.

Specific messages tend to be remembered better than general ones. Patients in Bradshaw, Ley and Kincey’s study (1975) were more than twice as likely to obey instructions such as “weigh yourself once a
week” than the more general “keep track of your weight-loss progress”. This strategy can easily be applied to sustainability messages – for instance, “turn off the lights whenever you leave the room” will be better remembered than “reduce your energy use”.

The above study also found a recall advantage for instructions that were easy to read. Instructions with high reading ease, measured in terms of both the number of syllables per word and the number of words per sentence (Flesch, 1948), were 40% better recalled than those with low reading ease (Bradshaw, et al., 1975). Making sure that messages are structured in a clear and simple way should make them easier to remember.

Making the message personally relevant to the audience increases not only their attention to the message, but also their memory of it (Symons & Johnson, 1997). According to the elaboration likelihood model of persuasion (Petty & Cacioppo, 1986), personally relevant arguments are more likely to be deeply (and so memorably) processed. Discussing how an issue will impact on the target audience is an obvious way of making messages relevant. Bator (2000) also recommends surveying the target audience to reveal patterns of common experience with the issue to be communicated. If most students raise a particular experience (e.g. wanting to recycle more but not knowing where the correct bins are located) then this experience should be discussed in the message.

Anxiety levels also impact on memory. Information processed during levels of high anxiety tends to be poorly remembered (Ley, 1979). For this reason, there may be certain times of the day or week and points during the academic year when messages will be less effective – for instance, students are less likely to remember sustainability information provided during exam time, and staff less likely if it is provided in the week before semester starts. Memory is also best when a person’s physical and psychological state at the time of recall match that when the information was presented (Schramke & Bauer, 1997). For this reason, information presented at the start of a stressful review meeting may be difficult to remember in the more relaxed environment of a staff kitchen.

The need for a good match between presentation and recall goes beyond anxiety levels. Messages will also be better remembered if they are presented in the same environment where they must be recalled (Flocke & Stange, 2004). Providing a cue in the message that will be encountered when the information must be remembered will also improve recall (Keller, 1987) - for instance, using an image of a tap in a message about conserving water will help to bring that message to mind when the individual is next
washing dishes; placing a matching logo on posters and bins should improve recall of a pro-recycling message.

Using vivid imagery helps to increase memory of a message (Kisielius & Sternthal, 1984). Vivid imagery can be provided by presenting an image to accompany information, or by verbally describing details that help to build a mental image. Both methods have been found to increase later recall of information (Shedler & Manis, 1986). However, unpublished research by Rhoads (1994, in Bator 2000) suggests that only the key features of the message should be conveyed vividly; descriptions of surrounding details distract from the key content and reduce memory for the message.

Memory of more complex messages may be improved through the use of pictographs (images representing parts of the message – for instance, each one of a series of instructions). Houts, Witmer, Egeth, Loscalzo and Zabora (2001) found that adding pictograms to spoken medical instructions increased recall of those instructions a month later from 16% to 85%. The inclusion of pictographs with written information has also been shown by a number of studies to increase recall in all subjects except perhaps the elderly (Houts, Doak, Doak, & Loscalzo, 2006).

Emotion is intrinsically tied to memory, relying on closely associated areas of the brain (Phelps, 2004). Highly emotionally charged images, both pleasant and unpleasant, tend to be better remembered than neutral ones (Bradley, Greenwald, Petry, & Lang, 1992; Harris & Pashler, 2005). The emotional impact of a message can also be enhanced by using narratives describing specific cases (Newman, 2003). People tend to care more about what happens to an already-identified person than to a statistical “someone” (Small & Loewenstein, 2003). Illustrating the experiences of a given individual can therefore be expected to evoke stronger emotional responses than simply giving probabilities or statistics.

- When giving instructions, be specific.
- Use easy-to-read language, with fewer syllables per word and words per sentence.
- Make messages personally relevant to the audience. Show how an issue will impact the audience’s life, or discuss experiences common to many audience members.
- Avoid presenting messages during times of high anxiety, especially if the information needs to be recalled in a low-stress environment.
- Where possible, present information in the same environment where it should be remembered.
- Use vivid imagery, but only for key ideas, not distracting surrounding details.
- Accompany complex or multi-part messages with pictographs.
- Engage emotion with images and narratives.

**Changing Behaviour**

Changing beliefs and attitudes does not necessarily lead to changed behaviour. The well-documented “attitude-behaviour gap”, the tendency for people to state one belief but act as if they hold another (Wicker, 1969), suggests a need to go beyond simply changing minds. Psychological research has revealed a number of phenomena that can be used to push individuals to express their new attitudes in changed behaviour.

One of the most powerful tools for changing behaviour is the use of social norms, touched upon in the discussion of framing, above. If people believe that others behave in a certain way, they will tend to change their behaviour to match (Cialdini, 2001). Communications can create powerful social norms by stating how common the desired behaviour already is – for instance, “60% of library patrons are now saving paper by printing double-sided.”

It is important to note that people are generally unaware of the effect of social norms on their behaviour. Participants in a study of household energy use (Nolan, et al., 2008) were far more likely to state that appeals to altruism or the environment would encourage them to act. However, adding appeals to social responsibility or environmental protection to a message they received about switching from air-conditioning to fans did not increase its effectiveness. The only information that improved energy savings was a statement of how much power was being saved by other households, even though participants had thought that this would be the least effective strategy. Simply telling people that others behave in sustainable ways is likely to improve their behaviour far more than they themselves are aware.

These messages about social norms can be even more effective when they refer to the behaviour of people in similar situations to the intended audience. When trying to persuade hotel guests to reuse their towels, Goldstein (2008) replicated the finding that descriptive norms (“75% of guests at this hotel reuse towels”) were the most effective way of changing behaviour. They also found that by making the norm more specific to the audience (“75% of guests staying in this room”), they could make the message even more persuasive. Interestingly, this only worked when the message referred to the specific
situation, rather than some other part of the participant's identity ("75% of men" or "75% of citizens"). This suggests that when using norms in a message, the most useful information to give is about how people in that situation (in that building, disposing of paper in a particular library, etc) behave, rather than focusing on people of similar age, gender etc.

Unfortunately, social norms can have unintended effects on people who are already doing the right thing. Schultz (2007) found that households that were performing better than the average before intervention were likely to actually increase their energy use when told that most people were using more energy. It may be that this problem can be avoided. By providing an injunctive cue – in this case, by adding a smiley face to messages aimed at households doing better than average, and a frowning face to those doing worse than average – the experimenters were able to almost completely remove this negative effect. Wherever possible, social norms should be accompanied by messages letting people who do the right thing know that their efforts are noticed and appreciated. Providing a second norm, the average of a higher-performing segment of the population (for instance, households in the top 20% for energy efficiency) may also provide a more motivating comparison point for those already behaving well (Ayers, Raseman, & Shih, 2009).

It is important to be aware of the potential negative effects of social norms. Messages that suggest that unwanted behaviour is the norm ("too many people leave lights on in this building" or "few people on campus recycle") are likely to increase this behaviour, worsening the problem (Cialdini, 2003). Be careful to phrase messages in terms of what people should do, rather than how prevalent the unwanted behaviour is.

Another useful psychological phenomenon is cognitive dissonance, the discomfort felt when a person becomes aware of contradictions between their own beliefs or actions (Festinger, 1957). In order to reduce this discomfort, the individual will tend to change their beliefs or actions in order to resolve the conflict. Actions cannot be changed once performed, so attitudes are often shifted to match past behaviour and new plans will tend to be consistent with what has been done before. Social marketing campaigns often make use of cognitive dissonance by having individuals make commitments, often in a public forum, to act in a certain way in the future. Cognitive dissonance will encourage the individual to act in line with their pledge, as well as shifting their attitudes towards valuing those behaviours (Cialdini, 2001). The effect of cognitive dissonance will be greatest if people volunteer to perform the initial behaviour, or receive only a very small reward. Large incentives may be used to explain away the contradiction between the person’s behaviour and their attitudes, preventing cognitive dissonance from
having an effect (Festinger & Carlsmith, 1959). If I get paid a large sum to encourage others to walk to work I can comfortably tell myself that I am doing it for the money, a motive that doesn’t contradict with my own habit of driving to work. If I’m not getting paid to make the appeal, I must actually believe in what I’m saying, so it would be contradictory to drive.

Past behaviour also shapes future actions in the foot-in-the-door effect. People are more likely to comply with a large request if they are first presented with a smaller, hard-to-refuse request (Cialdini, 2001). Freedman and Fraser (1966) found that research participants were more than four times more likely to agree to display a large “Drive Carefully” sign on their lawn if they had first agreed to post a smaller sign in their window. The study revealed the largest foot-in-the-door effect when the first request was related to the same issue as the second and required a similar action to be performed. The act of saying yes once makes it easier to agree again – for instance, staff will be more likely to agree to promote sustainability to others in their building if they have first agreed to put a pro-sustainability sticker on their office door.

While the evidence supports the use of this effect to elicit positive responses to specific, one-off requests, there is some debate as to whether the foot-in-the-door phenomenon can be used to stimulate escalating change in ongoing behaviours (Thøgersen & Crompton, 2009). Thøgersen and Crompton (2009) suggest that the common practice of pushing for small, simple behaviour changes (e.g. switching off lights, recycling paper) may in some cases actually decrease the uptake of larger, more difficult behaviour changes (e.g. reducing the frequency of long car journeys). The smaller behaviour may serve as a justification for not doing anything more: “it’s alright that I drive to work every day because I’m already doing my bit by recycling.” The authors argue that a “positive spillover” from small to large behaviour change is likely only to occur in people who already value environmental responsibility and who are making the initial small change for purely environmental reasons. They urge that pro-environmental communications should not over- emphasise the effectiveness of small changes, but rather describe them in the context of larger, more efficacious behaviours.

The phrasing of a message can be altered to increase behaviour change. Werner, Stoll, Birch and White (2002) found that they could increase compliance with a recycling request by a third by adding the words “It may be inconvenient, but it’s important!” to their posters. Acknowledging the time cost of recycling operates similarly to the two-sided argument style discussed above. The statement makes the request appear better-considered and combats an immediate justification for failing to comply. Care should be taken with this approach, as it is important not to unnecessarily reinforce the belief that
sustainable behaviour is inconvenient. However, if a survey of the target audience shows that the majority are failing to engage in a behaviour because they find it difficult, acknowledging those difficulties and encouraging the audience to act in spite of them may be beneficial.

People have a tendency to stick with the status quo when making choices (Samuelson & Zeckhauser, 1988) This may be at least in part explained by the omission bias, the tendency for people to feel bad if they cause harm by performing an action, but not if they cause harm by failing to perform an action (Bazerman, 2006). If a person must opt in to a new waste disposal program, they are likely to feel little guilt for failing to participate – they haven’t actually done anything. If, however, they must opt out of the program, they are more likely to feel guilty for “actively” choosing to remove themselves. For instance, when other factors are controlled for, countries which require citizens to opt-out of being organ donors tend to have donation rates 25-30% higher than those in countries where citizens must opt-in (Abadie & Gay, 2006). Wherever possible, the preferred behaviour should be set as the status quo.

- Create positive social norms: if most people are doing the right thing, make sure that everyone knows it.
- Where possible, make norms situation-specific.
- Let people who are performing particularly well know how much it is appreciated by the community so that they don’t drop down to average behaviour.
- Be careful not to establish negative norms by making the unwanted behaviour seem common. If everyone does the wrong thing, talk about what they should be doing.
- Have audience members make public commitments to act sustainably.
- Ask some audience members to promote the message to others.
- If you need to make a large, difficult request, make a smaller request a little time before – saying yes once makes it easier to say yes again.
- Don’t over-emphasise the importance of small behaviour changes – make it clear that small changes are important, but can’t replace larger commitments to sustainability.
- Acknowledge the inconvenience of the target behaviour, but only if that inconvenience is preventing most people from acting.
- Make the preferred behaviour the status quo, so that people have to opt out rather than opt in.
Evaluating the Effectiveness of a Communication

Evaluation is an incredibly important stage of the social marketing process. The complexity of human behaviour means that even the best-formulated intervention can be undermined by unforeseen factors. Careful evaluation of the effectiveness of an intervention can help not only to establish whether or not the desired effect is being achieved, but also what changes might need to be made.

There are several evaluation designs that might be used to assess the effectiveness of an intervention (Hillsdon, 2010). The simplest, but least useful, is a post-intervention-only design, in which the target audience is surveyed after the intervention has been put in place and asked to what extent their behaviour, attitudes, etc. have changed over the intervention period. Little weight can be placed on data from this form of evaluation, as people are prone to misremember their past attitudes and behaviours, particularly if they do not match their current ones (Olson & Cal, 1984).

A somewhat more reliable evaluation can be made by comparing measures of current behaviour, attitudes, etc. to a baseline measured before the intervention was put in place. For instance, the percentage of waste recycled by people in a particular building could be compared before and after pro-recycling posters are put up. The problem with this design is that it cannot take into account external factors that might be contributing to the observed change. For instance, the increase in recycling might have been caused by a high-profile television campaign, with little change brought about by the posters.

In order to separate out these external factors, a quasi-experimental design is most effective. In this kind of evaluation, changes in the audience receiving the intervention are compared to those in another group that has not received the intervention (the control group) over the same period. So long as the two groups are well-matched, it is likely that any change in the intervention group beyond that seen in the control group is due to the intervention. Not all social marketing campaigns can be evaluated in this way, as it may be difficult in some cases to find a control group that has not been exposed to the intervention. For this reason, small initial trials of an intervention can be extremely useful for getting an accurate picture of its effectiveness.

Even when a quasi-experimental effect reveals a potential behaviour change, it is best to be cautious before attributing this change to the intervention. Flay and Best (1982) identify some factors which may exaggerate the degree to which interventions change behaviour. One to be particularly aware of is the Hawthorne effect – the tendency for people to change their behaviour simply because they are aware that others are paying attention to them. In order to properly control for the Hawthorne effect, the
control group should also receive some form of placebo-intervention, so that the effects of the real intervention can be properly isolated. It can, however, be difficult to formulate a good placebo-intervention that creates a comparable sense of attention (Flay & Best, 1982). Depending on the actual intervention, putting a placebo into place may also be too expensive to achieve.

Sample effects may also exaggerate the apparent change achieved by an intervention. It should be noted that people who volunteer to take part in a trial intervention or post-intervention survey may also be more likely to take up certain behaviour changes than the general population. Attrition effects work in a similar way – people who have difficulty changing their behaviour are more likely to drop out of a trial, making the intervention’s effect look bigger than it actually is (Flay & Best, 1982).

Finally, the surveys used to establish baselines in an evaluation may actually be partly responsible for observed changes. For instance, being asked questions about their attitudes towards sustainability may bring this issue to the front of audience members’ minds, increasing their responsiveness to the intervention (Flay & Best, 1982). If it is suspected that this has occurred, it may be advisable to include the pre-intervention survey in any later applications of the intervention.

A social marketing campaign should be evaluated at each stage of the persuasion process (Chapman, 2010; Flay & Best, 1982). Finding out that energy use has not been decreased by a campaign is not helpful if you cannot also identify why this is the case. It may be that the message is flawed, but it is also possible that people have not noticed that message in the first place, or that they have difficulty remembering the message when they go to leave the building for the night. Where possible, try to establish whether the audience is attending to the message; whether the message is changing their attitudes and intentions; whether they are able to remember these changed attitudes and intentions later; whether this is translating into changed behaviour; and whether the desired outcome (e.g. reduced energy use) is actually being achieved overall. This information may help to improve current interventions and inform the design of future campaigns. Follow-up evaluation is also recommended to assess the persistence of any intervention effects – behaviour change seen immediately after a campaign may begin to fall back in the weeks or months after the intervention had ended (Murry, Stam, & Lastovicka, 1993).

The PERFoRM model used in public health evaluation includes several measures that may be useful when evaluating pro-sustainability marketing (Wallack, 1981). The most relevant are:
1. Effectiveness: the amount of change in the desired outcomes (attitudes, behaviours, etc.) related to exposure to the intervention.

2. Cost-effectiveness: the marginal dollar cost required for the intervention to achieve the desired change.

3. Substitution and halo effects: Any unintended behavioural changes created by the intervention. The adoption of a desirable behaviour can be accompanied by a drop in other desirable behaviours (a substitution) or an increase in other desirable behaviours (a halo effect).

4. Equity: Any differences in behaviour change across various demographic factors (age, gender, income, etc.)

An analysis which considers all of these factors should give the best indication of whether an intervention is the most effective use of resources.

- Evaluating the effectiveness of a social marketing intervention helps to guide decisions about this and future interventions.
- The most reliable estimates of the effectiveness of an intervention require a comparison of the amount of change observed in the audience and the amount of change observed in a similar control group over the same period.
- Be aware that the Hawthorne effect, volunteer and attrition effects and baseline-establishing surveys may all affect the amount of change seen in the audience.
- Evaluate at each stage of the persuasion process – capturing attention, changing attitudes, message retention, behaviour change and overall outcome change, including short- and long-term changes.
- Consider the effectiveness, cost-effectiveness and equity of the intervention, as well as any substitution and halo effects.
References


Ayers, I., Raseman, S., & Shih, A. (2009). Evidence from two large field experiments that peer comparison feedback can reduce residential energy usage.


Background Paper


Selling sustainability: Seven lessons from advertising and marketing to sell low-carbon living. (2008). NESTA.


