

An Old Dog Learns New Tricks: Applications of Social Psychology to Encourage Canadians to Conserve Energy

Peter Love, June 2021

For 50 years I have been involved in creating and managing voluntary energy efficiency programs, as well as managing agencies set up to design and deliver those programs. It is amazing to me that so few of the lessons from social psychology, and behavioural psychology in particular, are used in these programs. Through both my undergraduate and graduate degrees, I never took a psychology course and (although, like many, I have read a few of the popular books on the subject including [Nudge](#), [The Undoing Project](#), [Fostering Sustainable Behaviour](#), and [The Power of Habit](#)).

At age 70, I decided to change that and returned to university to take courses in psychology and social psychology. I believe that two of the social psychology principles I learned about in my coursework—social identity theory and the theory of delayed gratification – can be used to encourage energy conservation.

Social Identity Theory Applied to Energy Conservation

Social identity theory explains why and when individuals categorize themselves as group members and identify with that group. This then influences an individual's self-concept which can, in turn, influence their behaviour. Applied to energy conservation, the majority of people do not see themselves primarily as environmentalists but as part of one of many other possible groups. While some of these groups are based on highly context-specific features (age, gender), others are based on characteristics such as family status (parents/grandparents), careers (professionals, union), activities (hobbies, recreation) or other types of groups.

The messaging members of these groups receive from others in their group or in the media typically does not encourage these specific groups to conserve energy and likely does not even mention it as an issue. The messaging members of these (non-environmental) groups currently see in most public media encouraging energy conservation is often focusing exclusively on the environmental benefits and thus not speaking to the core interests of their self-identified group. It is thus very easy for members of these groups to ignore energy conservation messaging.

As noted by Calin O'Connor in the "Facts Aren't Enough" podcast, when people do not see others whom they trust (such as other members of their self-selected group) behaving in a desired way, they will not change their own behaviour. Furthermore, non-environmentalists are also unlikely to know that their neighbours may actually be conserving energy because such measures are not visible but hidden behind walls, inside appliances and in basements. This is unlike the very popular blue box recycling program where everyone can see that their neighbours are participating and are therefore more likely to participate themselves.

Energy Conservation Approaches Based on Social Identity Theory

To address the barrier to increased energy conservation associated with the social identity theory, and also link energy conservation to an action that can help address climate change, a wide range of role models could be identified who support greater energy efficiency as a means to combat climate change. These role models should be well known and respected by individuals within selected non-environmental groups. The messages would be designed to link the core interests of each particular group with a related benefit that would come from halting climate change. They would also focus on energy efficiency as something each individual can do to take action on this issue.

Examples of actions based on social psychology would include:

- call to parents/grandparents to leave a better world for their children/grandchildren;
- call to gardeners/bird watchers/canoeist/cottagers/outdoors enthusiasts to protect wilderness and wildlife, hunter/fisherman about the loss of wildlife habitat through climate change;
- call to farmers about the loss of crop land and water shortages, and;
- calls from community leaders, sports and entertainment celebrities and religious leaders stressing humanity's need to look after the earth.

Such messages could be distributed to media channels popular with each different group. Similar initiatives have been undertaken in the past although none have been as focused as this initiative.

These approaches are similar to the Canadian Coalition on Acid Rain's successful campaign to have environmentalists/cottagers/ hunters/fishermen/maple syrup producers/outfitters and others join their coalition in the 1980's. In this case, unique messaging was developed for each different group.

A more recent example is a video produced by the UK group Climate Outreach which include short comments from gardeners, grandparents, bird watchers and soccer players on why they support action on climate change. In this example, although the focus was on climate change, all these messages were contained in one video and not unique to a specific target group.

Theory of Delay of Gratification Applied to Energy Conservation

The theory of delay of gratification describes the act of resisting the impulse to take a reward immediately in the hope of getting a bigger reward in the future. This theory impacts energy conservation behavior in two main ways:

- to use existing equipment more efficiently (e.g. turn off lights, use programable thermostats, walk/bike, etc.) and;
- replace older equipment with new more energy efficient versions (e.g. LED lights, EnergyStar appliances, LEED buildings).

While newer energy efficient products will save money in the future, they typically cost more than the less energy efficient alternative. They require consumers to wait a few years before they get their money back in energy cost savings. This period is referred to as the payback period. While some studies have estimated this period to be as low as 3 years, it is believed by some to be as low as 1 year. In terms of return on investment (ROI), a 3-year payback period is equivalent to a 33% ROI and a 1-year payback to a 100% ROI which is many times more than can be gained by investing in stocks or bonds.

Energy Conservation Approaches Based on Delayed Gratification Theory

To address the problem associated with delayed gratification, instead of positioning purchases of energy efficient products as a cost, public messaging should position them as investments. This means that instead of referring to annual energy savings or payback periods, savings should be expressed in terms of ROI.

An example of this type of messaging has been used to compare the relative risk/return of energy efficiency in commercial buildings (low risk and hi return) with other investments such as government bonds (low risk & low return), equity in large companies (medium risk and medium return) and small companies (high risk and potentially high returns). The results are illustrated in Figure 1.

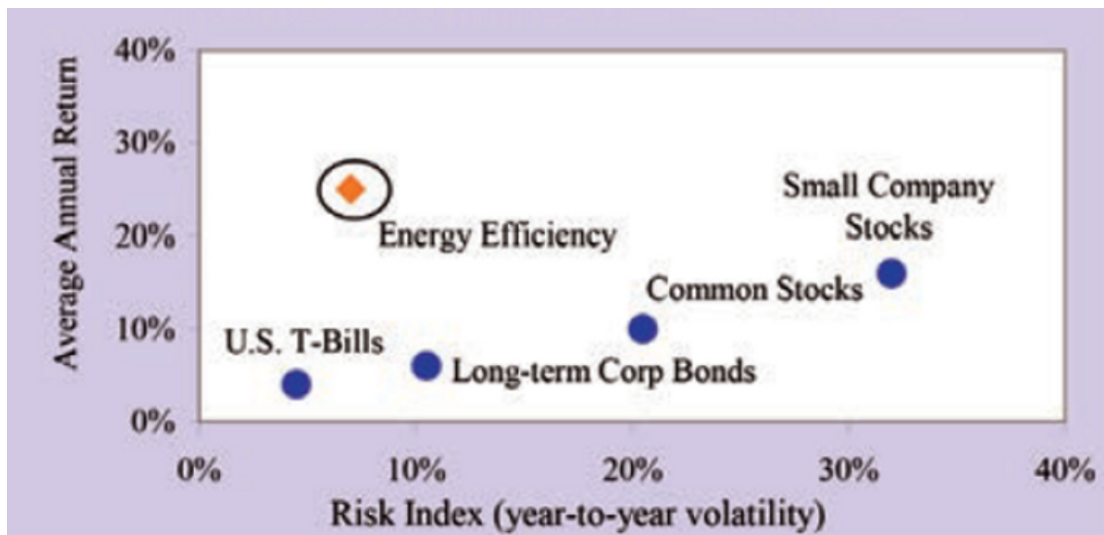


Figure 1: Relative Returns and Risks of Energy Efficiency Investments

Source: Love, Peter. [Fundamentals of Energy Efficiency](#) (2018), p. 25 (adapted from Ehrardt-Martinez and Laitner (2008). "The Size of the US Energy Efficiency Market: Generating a More Complete Picture". American Council for an Energy-Efficient Economy (ACEEE), Washington, DC.)

Another approach to address delayed gratification is to offer some form of visible recognition when someone buys an energy efficient product. This could be in the form of a sticker (such as used when people give blood), lapel pin, certificate suitable for framing or a plaque for an entire house (as is done for LEED certified buildings).

Conclusion

Based on the research undertaken for this paper, it is clear that there is a large opportunity to apply social psychology theories to identify better ways to encourage more Canadians to conserve energy. After spending most of my career on energy policy, reading relevant papers and attending key conferences, it is surprising how little recent research there has been in this area. The main annual conference where these topics should be discussed (Behavior, Energy and Climate Change) seems more focused on identifying and reviewing best practices. Most of the references on this topic in one of the most recent and well-respected textbooks on environmental psychology by Robert Gifford are almost all 20-30 years old. This is very fertile ground for further research.

About the author:

Peter Love is a Professor at Yorkville University and an Adjunct Professor at York University where he teaches courses on energy efficiency and sustainability and has written a free on-line textbook on energy efficiency policy and programs. He provides strategic and policy advice and serves on several corporate and non-profit boards including Efficiency Capital, International Solar Solutions, Lightspark, Toronto 2030 District (Chair Advisory Committee) and the Royal Canadian Institute for Science (past Chair). Previous roles have included Chief Energy Conservation Officer of Ontario and member of the team at Pollution Probe in the 70's that developed the 3 R's: reduce, reuse, recycle.