



Research Workshop

23 November 2011

Theatre B218, Level 2, Building B, Caulfield Campus

BehaviourWorks Australia brings together interdisciplinary researchers at Monash University with leading practitioners in government and business who share an interest in behaviour change research and environmental sustainability. Formatively established as a collaboration between the Monash Sustainability Institute, EPA Victoria, The Shannon Company, and Sustainability Victoria, our mission is to become an internationally-recognised behaviour change research centre for environmental sustainability.

On 23 November 2011, BehaviourWorks Australia will be hosting a research workshop involving academics and practitioners working in the behaviour change field. An outline of the workshop is included in this document. The objectives of the workshop are:

- Promote an exchange of knowledge among different disciplines and practices related to behaviour change and environmental sustainability.
- Foster the formative development of interdisciplinary research projects and teams with the aim of submitting two ARC Linkage applications in the first round of 2012. ***Industry funding for these grants has already been secured.***
- Identify projects as part of a broader research agenda for BehaviourWorks Australia, which might be explored through later ARC Linkage applications, Masters/PhD student projects, or commissioned research.

We are seeking a range of behaviour change researchers and practitioners to attend and contribute to the workshop. Spaces are limited, so please email james.curtis@monash.edu (with any dietary requirements) by **Friday 11 November** if you would like to attend.

For those wanting to attend the workshop, we encourage you to read the section at the end of this document entitled "Contemporary Behaviour Change Challenges". The section describes some of the current challenges and gaps in behaviour change research and practice that emerged during a review of the programs and interests of our partners.

Workshop Outline

8.30 – 9.00	Tea and coffee on arrival
9.00 – 9.20	<p>Welcome</p> <p>Dr Liam Smith (Director of BehaviourWorks Australia)</p> <ul style="list-style-type: none"> • Introduction to BehaviourWorks Australia • Aims and outcomes of the workshop • Introduction to behaviour change challenges in research and practice
Session 1	The academic perspective: Insights from different behaviour change disciplines and research
9.20 – 10.50	<ul style="list-style-type: none"> • Dr Fiona Newton (Marketing) • Associate Professor Phillip Payne (Education) • Professor Lata Gangadharan (Economics) • Professor Christine Parker (Law) • Dr Mark Symmons (Psychology) <p>Panel Q&A: Opportunities for interdisciplinary research</p>
10.50 – 11.10	Morning tea
Session 2	The industry perspective: Insights from practice, key challenges, and opportunities for research partnerships
11.10 – 12.40	<ul style="list-style-type: none"> • EPA Victoria • The Shannon Company • Sustainability Victoria <p>Panel Q&A: Common challenges and research interests</p>
12.40 – 1.30	Lunch
Session 3	Identifying opportunities for future research collaborations
1.30 – 3.00	<p>Breakout groups</p> <p>Researchers and practitioners discuss topics for future research.</p>
3.00 – 3.20	Afternoon tea
Session 4	Report back and next steps
3.20 – 4.20	<p>Report back</p> <p>Groups report back on future research opportunities as well as researchers and practitioners interested in pursuing the topic</p> <p>Next steps</p> <p>Where to from here? ARC Linkage applications 2012 Thank you and close</p>

Contemporary Behaviour Change Challenges

In this section, we describe some contemporary behaviour change challenges and gaps that emerged during a review of some of the programs and interests of BehaviourWorks Australia partners. These topics have been selected not only because of their relevance to our partners, but also because they have “traction” in the current academic literature.

1. Effectiveness and synergies of different behaviour change approaches

While researchers and practitioners will always be interested in comparing the effectiveness of different behaviour change strategies and techniques, a potentially more important question is how different intervention approaches can best be integrated. Given that behaviour is determined by multiple variables, often in interaction with each other, the same applies to behaviour change techniques and strategies. For example, Stern (2000) describes evidence indicating that incentives and information interact, with the combination sometimes being more effective than the sum of the two interventions. Furthermore, Osbaldiston and Schott (2011) recently described a number of intervention combinations that seemed to be particularly effective in influencing behaviour: “rewards and goals”, “instructions and goals”, “commitment and goals”, “prompts and making it easy”, “prompts and justifications”, and “dissonance and justifications”. While the effectiveness of these combinations will be moderated by the nature of the behaviour, this particular study did not include regulatory and other policy-based approaches, and so there seems to be scope to further explore the synergistic effects of multiple regulatory and non-regulatory approaches to influence behaviour.

2. Prioritising and mapping behaviours

When developing a behaviour change program, researchers and practitioners will often have before them a range of potential target behaviours, and will need to prioritise accordingly. The criteria applied to such a prioritising exercise might involve considerations related to the relative ease of influencing particular behaviours, the amount of forethought and effort required for a target audience to perform the behaviour, the behaviour’s potential impact in addressing an environmental issue, and the number of people or organisations who have the opportunity to engage in the behaviour. For example, Stern (2011) suggests that behaviours worthy of further study include both high-impact purchasing decisions (e.g., homes; energy efficient vehicles and appliances) and high impact equipment use behaviours (e.g., travel mode choice; vehicle driving behaviour; resetting thermostats), with the former being particularly under-researched.

Another consideration when prioritising behaviours is how particular behaviours fit in a transitional framework or map, highlighting how individuals, communities and organisations can move towards a more environmentally sustainable state. While much research in this area has focused on technological transition, an understanding of the behavioural and social aspects of transition remains underdeveloped (Nye, Whitmarsh, & Foxon, 2010). This could involve exploring questions related to how the effect of performing one particular pro-environmental behaviour has a “spillover effect” on subsequent actions. Positive spillover effects might emerge because of changes in self-perception, dissonance reduction, acquisition of knowledge and skills, and “foot-in-the-door” effects (i.e., small behavioural requests leading to larger ones). In contrast, negative effects might arise through mechanisms such as “crowding out”, resting on one’s laurels, or when efficiency outcomes lead to increases in consumptive behaviour. Understanding when and how these spillover effects operate under particular conditions represents a fundamental future research question in transitioning individuals, communities and organisations to more sustainable ways of living and operating (Corner & Randall, 2011; Stern, 2011; Thøgersen & Crompton, 2009).

3. Effectiveness of behavioural models across different behaviours

Different behaviours have different causal factors. Given that important causal factors will vary across behaviours and audiences, Stern (2000) recommends that each target behaviour should be theorised separately. As such, research into these causal factors should be a precursor to the implementation of any program. While a theory-driven approach towards understanding the determinants of a target behaviour will provide a defensible evidence-base for understanding the behaviour and choosing appropriate intervention strategies, the conditions under which particular models are most successful in explaining environmental behaviours need more attention (Steg & Vlek, 2009).

4. Breaking and forming new habits

In their efforts to promote change, researchers and practitioners often wonder “where the line is” in terms of when interventions are no longer required, as the target behaviour (assuming it is an ongoing behaviour) has essentially become the new norm in a particular situation. A number of behaviour change programs work on this premise, involving an intensive intervention period in the short-term, and hope that this will lead to lasting change. As a result, a lingering question is whether these short-term timeframes are enough to establish a new pattern of behaviour and/or form a new habit.

The formation of new (desirable) habits often entails the breaking of undesirable ones. Habits generally represent automatic responses in recurrent and stable contexts, so breaking undesirable habits in the first instance can prove to be difficult. However, given that habits are a function of stable contexts, opportunities arise when such contexts are broken or become unstable. This is referred to as the “habit discontinuity hypothesis”, which proposes that when individuals or the environment in which they operate changes, they might be more susceptible to new information and directions in order to find satisfactory replacements of their old habits (Verplanken, 2010). Such scenarios might occur when a person changes jobs, moves house, starts a family, enters retirement etc., or when a policy or infrastructure change is introduced such as vehicle use charges and exclusion zones in city centres. However, little systematic evidence exists in the environmental behaviour domain on the actual merits of this hypothesis (Verplanken, 2010). Research opportunities therefore exist to explore habit discontinuity scenarios in relation to particular pro-environmental behaviours.

Even if an intervention is successful in breaking a previous habit, the challenge remains about how to best proceed to form a new one, which requires more longitudinal research efforts. According to Lally, van Jaarsveld, Potts, and Wardle (2010), researchers have generally not systematically investigated the habit formation process within individuals and with real world behaviours. The authors of the study attempted to address this and found that it took an average of 66 days of daily repeated performance of the *same* behaviour for new habits to form (with a range of 18 to 254 days). Questions remain about how behaviours differ in relation to habit formation, which would subsequently influence the level of resources and time needed to support the habit formation process.

5. Influence of “champions” on behaviours

There are a number of research questions related to the use of “champions” to instigate change. Research on “diffusion” has focused primarily on the uptake of new products, technology and innovations. As a result, it is still not well understood how champions or opinion leaders influence changes in other people’s attitudes and behaviours, especially with regards to complex issues such as climate change (Keys, Thomsen, & Smith, 2010). There are also opportunities to explore the factors that encourage champions to emerge and be effective, and the key attributes required of

them related to particular behaviours. This might involve considerations in relation to values, personality, social networks, leadership skills, history with the behaviour, and authority status (Taylor, Cocklin, Brown, & Wilson-Evered, 2011). The use of champions by EPA Victoria and Sustainability Victoria rightly recognises that with particular behaviours, government organisations might not always be the best messenger in the behaviour change process, as close peers or even “strangers with experience” might exert greater influence. This is often the case when the target audience is looking for decision-making shortcuts related to complex matters among an increasingly fragmented array of communication and media mechanisms (Young, 2011). Research exploring these questions would assist program designers to make more informed judgements on the use and selection of appropriate champions in relation to specific behaviours.

6. Business behaviour decision making

In the field of regulation and business environmental behaviour, relatively little is still known about why some businesses choose to engage in non-compliant, compliant, and “beyond compliance” behaviours (Howard-Grenville, Nash, & Coglianesse, 2008; Thornton, Gunningham, & Kagan, 2005). As a result, regulatory practitioners and scholars lack a consistent and comprehensive theory of compliance, with much to be learned about the relative importance and influence of legal threats, social pressures, and organisational norms and culture under various legal, political, economic and social conditions (Etienne, 2011; Gunningham & Kagan, 2005).

Historically, much research and practice has focused on “general deterrence theory” as a means of promoting business compliance, which rests on the notion that only the fear of imminent legal penalties that exceed the cost of compliance will induce profit-seeking firms to invest in compliance (Lee, 2008; Thornton, et al., 2005). However, research supporting this assertion can be tentative at times, recognising that the external pressures on individual businesses often involves a more specialised mix of regulatory demands, competitive and economic imperatives, and evolving social expectations. This begins to explain why differences can be observed in the environmental management practices within and between industries, and why levels of compliance can be high even when the threat of legal sanction is remote (Howard-Grenville, et al., 2008; Thornton, et al., 2005).

Even with a greater understanding of how interacting external pressures might influence business behaviour, these explanations remain incomplete given that they often fail to take account of the fact that different firms, operating under similar regulatory, economic and social pressures, can develop starkly different environmental management approaches. In this context, internal factors can shape whether and how external pressures are regarded as problems for the business and what solutions are deemed appropriate. According to Howard-Grenville et al. (2008), such internal factors might encompass organisational culture and identity; employee experiences, education, training and values; choices related to appropriate public portrayals to outsiders; and organisational structures that encourage managerial initiatives and actions. Despite their potential influence in shaping business behaviour, internal factors are under-researched compared to external factors, and are yet to benefit from a more complete body of research and practice. Specifically, questions exploring the relative influence of internal factors would benefit from a theoretical underpinning grounded in organisational psychology, as well as research designs that control for external factors to enable clear comparison for internal factors across businesses (Howard-Grenville, et al., 2008).

Finally, in an era of increasing regulatory demands and stretched regulatory resources, government authorities often see advantages in trying to encourage businesses to adopt self-regulation and beyond compliance measures in the hope this will achieve regulatory goals (Short & Toffel, 2010). Perceived benefits for businesses for undertaking such programs might involve financial savings, competitive advantages, gaining access to new technology and markets, creating a pro-

environmental image, demonstrating a willingness to respond to community concerns, or pre-empting or shaping future regulations (Howard-Grenville, et al., 2008). However, the current literature tells us little about whether, and under what conditions, self-regulation and beyond compliance programs will either facilitate or undermine a business's adherence to legal mandates, with the risk of these activities being "window dressing" efforts that mask competing motives. While the organisational drivers of effective self-regulation remain under-researched (relative to external pressures), an additional question posed by Short and Toffel (2010) involves exploring how variation in the implementation of legal mandates might mediate the nature of the business response to self-regulation programs. In their research, they demonstrated that effective self-regulation is a product not only of internal and external conditions but also about what regulators do (with regulatory surveillance more likely to foster self-regulation compared to regulatory threats and sanctions). Given the expansion of the regulator's toolkit to encompass a range of behaviour change devices, there is a need for theoretical and empirical research that explores the relationship between different tools of social control and the intrinsic or normative motivations of regulated entities (Short & Toffel, 2010; Stern, 2011).

7. Science-policy gap

The future research opportunities discussed so far highlight a number of contemporary behaviour change challenges that BehaviourWorks Australia and its partners could pursue in the future. Implicit in these recommendations are that the learnings generated from these endeavours can be effectively translated and integrated into the policies and practices of organisations. However, successfully bridging the "science-policy gap" presents a number of institutional, political, philosophical and skill-based challenges, requiring traditional or embedded paradigms toward (public) policy to be reconsidered (where necessary) to account for the interdisciplinary and complex nature of the behaviour change challenges that our society faces today (Forest & Hickey, 2011; Shove, 2010; Whitmarsh et al., 2011). Many of these challenges have been reflected in the debates occurring in the UK recently regarding the use of "nudge" techniques by government departments as a means to influence behaviour (Cabinet Office, 2011; Cabinet Office Behavioural Insights Team, 2011; House of Lords Science and Technology Select Committee, 2011). To this end, research exploring the drivers and barriers for organisations (especially in government) to effectively think and act as behaviour change agents would go some way towards facilitating the uptake of the learnings arising from the previously identified topics. This research might explore the ideal skill-sets, institutional frameworks, and political and social contexts needed for organisations to consistently and effectively deliver behaviour change programs by using the best available tools for the situation, while at the same time avoiding accusations of being too prescriptive or lax in their actions. Essentially, the research would recommend how they could move beyond, if required, traditional expectations, public personas, and operations to entities that can effectively promote behaviour change using a diverse range of theoretically and empirically-supported approaches.

References

- Cabinet Office. (2011). *Government response to the Science and Technology Select Committee report on behaviour change*. London: Cabinet Office.
- Cabinet Office Behavioural Insights Team. (2011). *Behavioural Insights Team annual update 2010–11*. London: Cabinet Office.
- Corner, A., & Randall, A. (2011). Selling climate change? The limitations of social marketing as a strategy for climate change public engagement. *Global Environmental Change*, 21(3), 1005-1014.
- Etienne, J. (2011). Compliance theory: A goal framing approach. *Law & Policy*, 33(3), 305-333.
- Forest, P., & Hickey, G. (2011). *Summary report on the strengthening the environmental science and public policy nexus workshop series 2010*. Ste-Anne-de-Bellevue: Sustainable Futures Research Laboratory, McGill University.
- Gunningham, N., & Kagan, R. A. (2005). Regulation and business behavior*. *Law & Policy*, 27(2), 213-218.
- House of Lords Science and Technology Select Committee. (2011). *Behaviour change report*. London: House of Lords.
- Howard-Grenville, J., Nash, J., & Coglianese, C. (2008). Constructing the license to operate: Internal factors and their influence on corporate environmental decisions. *Law & Policy*, 30(1), 73-107.
- Keys, N., Thomsen, D. C., & Smith, T. F. (2010). Opinion leaders and complex sustainability issues. *Management of Environmental Quality: An International Journal*, 21(2), 187-197.
- Lally, P., van Jaarsveld, C. H. M., Potts, H. W. W., & Wardle, J. (2010). How are habits formed: Modelling habit formation in the real world. *European Journal of Social Psychology*, 40(6), 998-1009.
- Lee, E. (2008). Socio-political contexts, identity formation, and regulatory compliance. *Administration & Society*, 40(7), 741-769.
- Nye, M., Whitmarsh, L., & Foxon, T. (2010). Sociopsychological perspectives on the active roles of domestic actors in transition to a lower carbon electricity economy. *Environment and Planning A*, 42(3), 697-714.
- Osbaldiston, R., & Schott, J. P. (2011). Environmental sustainability and behavioral science: Meta-analysis of proenvironmental behavior experiments. *Environment and Behavior*.
- Short, J. L., & Toffel, M. W. (2010). Making self-regulation more than merely symbolic: The critical role of the legal environment. *Administrative Science Quarterly*, 55(3), 361-396.
- Shove, E. (2010). Beyond the ABC: Climate change policy and theories of social change. *Environment and planning A*, 42(6), 1273-1285.
- Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology*, 29(3), 309-317.
- Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407-424.
- Stern, P. C. (2011). Contributions of psychology to limiting climate change. *American Psychologist*, 66(4), 303-314.
- Taylor, A., Cocklin, C., Brown, R., & Wilson-Evered, E. (2011). An investigation of champion-driven leadership processes. *The Leadership Quarterly*, 22(2), 412-433.
- Thøgersen, J., & Crompton, T. (2009). Simple and painless? The limitations of spillover in environmental campaigning. *Journal of Consumer Policy*, 32(2), 141-163.
- Thornton, D., Gunningham, N. A., & Kagan, R. A. (2005). General deterrence and corporate environmental behavior*. *Law & Policy*, 27(2), 262-288.
- Verplanken, B. (2010). Old habits and new routes to sustainable behaviour. In L. Whitmarsh, S. O'Neill & I. Lorenzoni (Eds.), *Engaging the public with climate change* (pp. 17-30). London: Earthscan.

- Whitmarsh, L., Upham, P., Poortinga, W., McLachlan, C., Darnton, A., Devine-Wright, P., et al. (2011). *Public attitudes, understanding, and engagement in relation to low-carbon energy: A selective review of academic and non-academic literatures*. Swindon: Research Councils UK.
- Young, M. (2011). *Soap and brotherhood: Marketing, convergence, and change*. Paper presented at the The 2nd World Non-Profit and Social Marketing Conference.