The Perfect and the Possible: Seeking a Frugal Model of Behaviour Change

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Introduction

In their recently published paper, Rowland and van den Berg[1] make a valuable contribution to the science of behaviour change. Moving beyond Michie et al's Behaviour Change Wheel,[2] they seek a more comprehensive approach. In doing so, I believe they are overly ambitious. This article attempts to outline a more intuitive, frugal model of behaviour change, of greater use to practitioners.

Behaviour change campaigns are rarely attempted in ideal conditions. Even public health campaigns in Western cities must deal with political urgency, bureaucratic limitations and funding shortfalls. The challenges faced by campaign planners in Kandahar, or Nairobi, or São Paulo, are infinitely greater. Valid social science research is a major obstacle, and there is little time or money, or manpower, to perfect plans. In public health or in war, everything is urgent and just staying alive can fill the day.

It therefore follows that any behaviour change model must be frugal. It must weigh the value of extra information against the difficulty of obtaining it, and it must be intuitive enough to convince busy planners and impatient funders that a more careful approach to behaviour change is worthwhile. I have taken as a principle that most behaviour change campaign planning will be based on a maximum of one round of quantitative and one round of qualitative research, with the implicit restriction that interviews in challenging environments rarely last more than 30 minutes. (Some sort of tailored primary research is essential, though many campaigns are launched without it).

Rowland and van den Berg

To recap, Rowland and van den Berg presented a model based on three domains: Social, Motivation and Informational. These contained 18 parameters, as laid out in the table below (see Figure 1). They provide a full explanation of each parameter and its role in their article.

Domain	Parameters
Social	♦ Group Membership ♦ Normative Factors ♦ Rituals ♦ Power Structures ♦ Common Enemies ♦ Initiating Sets
Motivation	♦ Motives ♦ Reward Structures ♦ Attitudes ♦ Propensity to Change ♦ Self-Efficacy ♦ Binary Opposition
Information	♦ Noise ♦ Filters ♦ Framing ♦ Decision Path ♦ Source Credibility ♦ Message Appeals

Figure 1. Rowland & van den Berg's Parameters

A Simpler Model

The model I propose contains four domains: Current Situation, Power to Change, Desire to Change, and Communications, composed of 9 parameters (see Figure 2). The second and third domains (though arrived at independently) are similar in spirit to Michie's 'capability, opportunity, and motivation' taxonomy. The model attempts to be more intuitive in its organization, with each domain representing easily understood progress towards a plan for a behaviour change campaign. This makes it easier to train practitioners in its use, and easier to 'sell' the model to unfamiliar users.

Domain	Parameters
Current Situation	♦ Current Behaviour ♦ Values, attitudes, beliefs and norms
Power to Change	♦ Self-Efficacy ♦ Power Structures ♦ Influenceability ♦ Group Affiliation
Desire to Change	♦ Propensity to Change ♦ Motivations
Communications	♦ Channel Exposure ♦ Channel Credibility

Figure 2. Simpler model

Some comments on the selected parameters, and how they differ from Rowland and van den Berg's parameters:

1) This model introduces a parameter for Current Behaviour. The assessment of Current Behaviour is naturally implicit in Rowland and van den Berg's model, but its importance is so great that it should be stated and examined explicitly.

2) The model combines Rowland and van den Berg's Normative Factors and Attitudes into a measure known as Values, Attitudes, Beliefs and Norms (VABNs). Though in theory values, attitudes, beliefs and norms are separate concepts, it is exceptionally difficult to differentiate them in qualitative or quantitative research.

3) It includes a parameter named Influenceability. This is a slightly rough and ready parameter; though some research has been done,[3] the psychological literature has not clearly established that a generic level of persuadability exists. However, it is worth attempting to measure, with due caution, because it can help determine the necessary amplitude of the campaign (or, where Influenceability is exceptionally low, it may suggest that a different target group should be selected). It is also a useful point at which to note any emergent data on Message Appeals (how the respondent likes to be persuaded, usually measured by asking how they would persuade their peers) and Decision Paths (what the process is for persuading someone from this group).

4) This model combines Normative Affiliation (a measure of how strongly respondents are affiliated to the prevailing norms of a group they are in) with Group Membership (a description of which groups respondents are members of), to form a measure called Group Affiliation. Both parameters are useful, of course, but in my view not sufficiently useful to justify separate measurements. At the same time, Group Affiliation recognizes that every person belongs to more than one group, and that their level of normative affiliation varies from group to group. Binary Oppositions and Common Enemies are most often reinforcers of this group identity, and are best discussed here.

Several of the parameters in Rowland and van den Berg's model are here relegated to a second tier, and made subsidiary to others. I have already mentioned Message Appeals, Decision Paths, Normative Affiliation, Group Membership, Normative Factors, Attitudes, Binary Oppositions and Common Enemies, which I have placed as variously subsidiary to VABNs, Influenceability and Group Affiliation. To this should be added Rituals, Source Credibility (which can be examined alongside Channel Credibility, or Power Structures), Noise (which fits naturally alongside Channel Exposure), Filters and Framing (which are both exceptionally tricky to measure directly, but may emerge from discussions of VABNs). It is worth noting that where these become particularly relevant, they can still be used. They exist in reserve, in a sort of Parameter Bank. If they are sufficiently relevant, they will appear anyway in semi-structured depth interviews, and can be examined separately. However, in general, they have proved harder to test and less useful in designing campaigns than the primary parameters listed in Figure 2.

Another aspect of this frugal model is a principle of directness and relevance. A generalized understanding of the parameters is important, and can often yield unexpected findings that help inform communication campaigns. Consequently, a full understanding of the parameter as it relates to the issue at hand must be the priority. This 'relevance test' applies throughout the parameters measured. With VABNs, the category is so broad that it can be difficult to ascertain which are the most useful; a test of whether they relate to the issue is the most reliable way of doing this, even though some useful data will be lost. A measurement of Self-Efficacy should, where possible, focus on the ability to make the desired behavioural change, while analysis of Power Structures should examine those who can promote or prevent the behavioural change, and who are considered by respondents relevant to the issue. The same is true of Propensity to Change and Motivations. Assessments of Channel Credibility must be done in relation to the issue; the Cooking Channel may be credible when talking about nutrition, but is hardly likely to be so when talking about religion.

Finally, the model as discussed thus far largely assumes that the group to be researched (and targeted by the behaviour change campaign) has already been selected. Sometimes this will not be the case. In order to select a group, some additional parameters can be included, as outlined in the figure below (Figure 3).

Category	Parameters
Group Selection	♦ Relevance (to the issue) ♦ Accessibility (to research) ♦ Accessibility (to communicate) ♦ Influenceability

Figure 3. Group selection.

Conclusion

I do not wish to argue that Rowland and van den Berg's model is wrong. Though I quibble with the way they organize their parameters, it is in a number of ways a better model than mine. Where it can be followed, it is likely to produce more detailed findings and more reliable conclusions.

Where we differ is in the practicality of following such a model. For myself, I believe that my more limited model is also more practical, and that the sacrifices it makes in terms of accuracy and depth are worth the gains in ease of use. Many are not yet convinced of the merits of data-driven behaviour change along the lines of these models; it remains often dismissed as too slow or too costly. In persuading these people, every effort must be made to streamline and clarify the model.

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References

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