

## Behaviour and Behaviour Change

### Description

One of the things you often hear around talk of gamification is the term “Behaviour Change”. At one time, gamification experts and platform providers began to get nervous of the word gamification and started to talk about “Behavioural Science” and “Behaviour Change Platforms”. I remember writing a post somewhere about what would happen if you could not use gamification as a word and even suggested behaviour change as one of the options.

However, over the years I have realised that this is probably a bit naive and possibly arrogant. Behaviour is a complex thing and one that does not change easily, especially when you are trying to do it with nothing but shiny trinkets with a cut and paste bit of JavaScript!

What follows is a very brief overview from a non-expert. Use it as a base to start your own research into the topic!

### What is a Behaviour

First things first, what is a behaviour? As it happens, this is an area of some contention in the scientific world. As I did my research, I even came across an article called “Behavioural biologists don’t agree on what constitutes behaviour” [1] in which the researchers did an analysis of 174 expert responses to the question of “what is a behaviour” and got huge variation! They proposed a somewhat cumbersome meta definition of behaviour:

behaviour is the internally coordinated responses (actions or inactions) of whole living organisms (individuals or groups) to internal and/or external stimuli, excluding responses more easily understood as developmental changes

However, I very much like the definition offered by Hobbs Campbell, Hildon & Michie [2]:

“anything a person does in response to internal or external events.”

For our purposes, we would add the following as well

“For a behaviour to occur there must be a trigger, a process and an observable response”

Those of you who have read my blog for a few years will notice that last part is very, very like my definition of a [game mechanic!](#)



Behaviour

The **trigger** could be environmental, internal, deliberate or pretty much anything that, within the context of the behaviour, could induce it. The **process** refers to the various mechanisms involved in the behaviour occurring. This could be voluntary or involuntary. The **response** is the behaviour physically occurring, it is what can be observed or at least measured in some way.

Context is key for all of this to happen, it is not random!

## An Example

A simple example of a behaviour would be this. A person drinking an alcoholic drink.

Let's break that down into trigger, process and response.

- **Potential Triggers:** Offered a drink. Compulsion / addiction
- **Process:** The person weighs up the pros and cons of having the alcoholic drink based on the information they have available. Is it appropriate in the current situation or environment? Is it healthy? Is it sensible? Would a nonalcoholic drink be more appropriate?
- **Response:** The person drinks or does not drink the alcoholic beverage.

As you can see, there are a few factors here that can influence the behaviour and this is just a very small, low detail example!

## Behaviour Change

Now that we have some idea of what a behaviour is, we can consider how we might be able to change a one. There are two key opportunities to interfere or intervene before a behaviour can occur.

If we consider the previous example, what could we do to prevent the person from having an alcoholic drink? Where can we interfere with or shift the behaviour cycle?

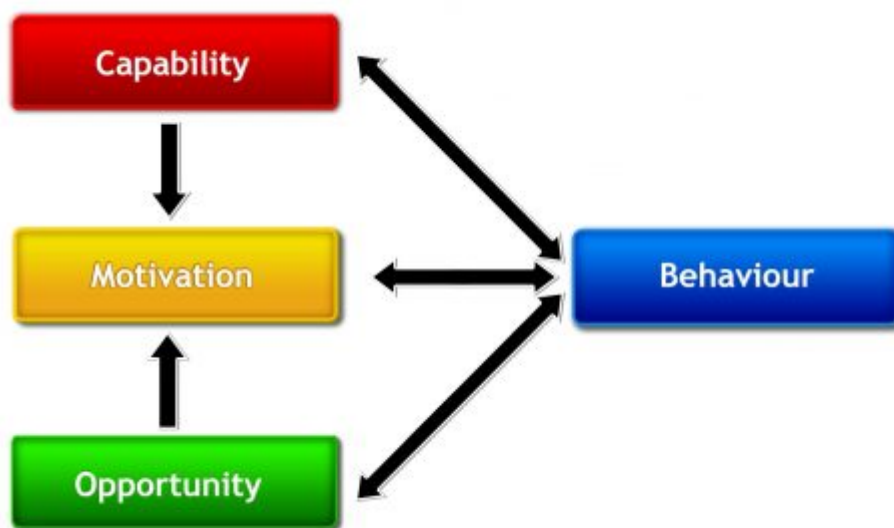
Initially, we can look at the triggers. We are not likely to be able to change the person's need for a drink

of some description, so we can't control thirst. Compulsion and addiction are too big to go into here. So, let's look at being offered a drink. We could potentially prevent this by having the person inform those around him that he is not drinking alcohol today, thus reducing the chances of someone offering him a drink. He can educate those around him.

If we cannot influence the trigger for the behaviour, how about the process that is undertaken before the behaviour is finalised? There is quite a lot that can be done here. Initially, we can look to educate the person about the dangers of alcohol. This way, during the decision-making process, they have more information to work with. Understanding the risks, the social norms, what alcohol tastes like etc. could alter the outcome of the process so that they have a soft drink rather than the alcoholic one. However, there may be other factors that may override this, stress at work, social pressure etc.

## Behaviour Change Models

There are many things that influence our behaviours and many models that aim to explain this. I have always been a fan of BJ Fogg's model [3], where he explains that a behaviour occurs when you have the right balance of Motivation, Ability and Triggers. However, I have recently been introduced by Carl Eacott (yep, him again) to the COM-B model of behaviour devised by Prof. Susan Michie [4]. This is a little more complete to my mind where behaviour occurs only when there is sufficient Capability, Motivation and Opportunity to do so. Unlike the Fogg model that indicates behaviour as a pure outcome, and covers Capability and Opportunity under 'Ability', COM-B is a bit more fluid and bi-directional. As the existence of behaviour is a good indicator of someone having sufficient capability, motivation and opportunity to do it again. Importantly, for someone to be motivated to enact the behaviour, they must have the capability and opportunity to do it.



COM-B Model

Taken from the original text, Capability, Motivation and Opportunity are defined as follows:

- **Capability** is defined as the individual's psychological and physical capacity to engage in the activity concerned. It includes having the necessary knowledge and skills.
- **Motivation** is defined as all those brain processes that energize and direct behaviour, not just goals and conscious decision-making. It includes habitual processes, emotional responding, as

well as analytical decision-making.

- **Opportunity** is defined as all the factors that lie outside the individual, both physical/material and social, that make the behaviour possible or prompt it.

The model is part of the Behaviour Change Wheel, that not only broadly explains how behaviour occurs, but what form of interventions can be used to influence the COM-B processes that in turn, can lead to changes in behaviour

When considering how to change a behaviour, we must first understand **what** the target behaviour(s) is, of whom, in what context(s), **why** it does/does not exist in the first place. We must look to see if anything is affecting capability, motivation or opportunity. If so, what can we do about it and is that all that there is? We must peel back all the layers! It's not good enough to just try and deal with the symptoms, we must deal with the cause. I created a set of [lens cards](#) that can help with some of this and include questions focused on the COM-B model considerations.

It is not just a matter of saying "we will give you a star every time you do something".

Behaviour change is a big deal and getting this right is not something we should take lightly or assume because we have seen the picture we understand it all!

## References

- [1] D. A. Levitis, W. Z. Lidicker, and G. Freund, "Behavioural biologists do not agree on what constitutes behaviour," *Anim. Behav.*, vol. 78, no. 1, pp. 103–110, 2009.
- [2] L. Hobbs, R. Campbell, Z. Hildon, and S. Michie, "Behaviour change theories across psychology, sociology, anthropology and economics: A systematic review," in *25th Annual European Health Psychology Conference*, 2011.
- [3] B. J. Fogg, "BJ Fogg's Behavior Model," *BehaviorModel.org*, 2008. [Online]. Available: <http://www.behaviormodel.org/>.
- [4] S. Michie, M. M. van Stralen, R. West, J. Grimshaw et al, "The behaviour change wheel: A new method for characterising and designing behaviour change interventions," *Implement. Sci.*, vol. 6, no. 1, p. 42, 2011.

## Category

1. Gamification
2. Education

## Tags

1. behaviour
2. behaviour change
3. com-b
4. fogg

5. phsychology

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