

How to win customers and influence people: Ameliorating the barriers to inducing behavioural change

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Abstract

Behavioural economics is always ultimately about behavioural change. Why behaviour is different to what we might expect/want and how it might change as the decision context does. Typically we focus on the sufficient conditions for behavioural change in isolation *ceteris paribus*. Here we take a different perspective and identify, using a model of the psychology of economic behaviour developed at the University of Queensland, the various *necessary* conditions for behavioural change. We arrive at a "checklist" of sorts of barriers which need be removed for behavioural change to occur, and suggestions about how they may so be.

Keywords

Behavioural Change — Necessary Conditions — Mental Networks

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Introduction: Behavioural economics and behavioural change

Homo Oeconomicus behaves in a fairly stable manner. They have stable preferences which guide them to pick out of a feasible set that course of action they most prefer. The only way to get them to change their behaviour is to change the constraints they face to add new things to their feasible set or take them away. This does not quite align with what we actually observe.

The behaviour of *Homo Sapiens* changes all the time, and not just in response to changing constraints. The slightest change even in the way information is presented to them –not the content of the information even, just the *way* it is presented alone– can cause them to change their behaviour quite dramatically, reverse it even (Tversky and Kahneman 1974, Tversky and Kahneman 1981, Kahneman 2003, Kahneman and Tversky 1979, Kahneman and Thaler 2006, Ariely 2008). This radically expands the suite of means by which business strategists and marketers may affect behavioural change to buying their product, and this is why behavioural economics is important for them.

Behavioural economics has ultimately been about identifying the sufficient conditions for, and therefore the means by which behavioural change may be brought about. However, these sufficient conditions –“do this, and behaviour will change”– are typically rather isolated by virtue of their being identified in experiments where all else is held constant but for one aspect of the decision environment. The advice this offers is a little unsystematic –“these things *might* be decisive in winning you customers”.

Our approach here will be a little different. We will seek to identify in a deliberately systematic manner the *necessary* conditions for behavioural change. We will seek to identify the *barriers* to behavioural change and how they might be ameliorated.

This we will do by making use of a model of the psychology of economic behaviour developed at the University of Queensland (the technical document outlining this model being contained in Markey-Towler (2016b)) which is inspired by the work of Peter Earl (Earl 1983, Earl 1986a, Earl 1986b, Earl 1990, Earl 1992, Earl 1995, Earl 2003, Earl 2010, Earl 2013, Earl 2017). We will discover a number of properties of perception, analysis, decision and mental evolution which present impediments to behavioural change, and suggest means by which they may be ameliorated. We will conduct this examination informally, a technical exposition of the relevant concepts may be found in Markey-Towler (2016a, 2017b, 2017a).

A model of the psychological process: Operating within and upon networks

The mind may be understood as a network. The nodes in our mental network are symbolic correspondents to objects in our world like goods, services, media of exchange, attributes, concepts, wants, needs, emotions and are the symbolic equivalent of linguistic nouns, adjectives, subjects. The connections between these are the basic action of our thoughts, and constitute our inference of the relation between those objects in the world. They constitute our construals of resemblance, contiguity, cause and effect (see Hume (1777)). They together, in concert, are our “map” of reality (Hayek 1952), our sys-

tem of personal constructs (Kelly 1963), our “image” of the world (Boulding 1961), the set of our “personal knowledge” (Polanyi 1958) the mental reflection of our neural networks (Kandel, Schwartz, Jessell, Siegelbaum, and Hudspeth 2013).

The psychological process operates within and upon this network. Perception, analysis and decision operate *within* it. Mental evolution exerts pressures *upon* it.

We exist in a world full of information. The world itself is information manifest. That information must be mapped into something the mind may operate with in order for behaviour to arise, and that is the function of *perception*. Perception maps the information in our world into symbolic representations thereof in our mind. The function of perception is to identify the objects in our environment (the goods, services, media of exchange, attributes, concepts, wants, needs, emotions) and any apparent relations between the objects of reality. Perception elicits symbols in our mind corresponding to our representations of the world. It “lights up the dots” in our neural networks.

Percepts alone do not make much sense however. They have to be related together. This is the function of *analysis*. In the process of analysis, the connections between the objects of reality contained in the environment are applied to construe their relation and form an *understanding* of the environment in which the individual finds themselves. They take the set of all their knowledge and apply it to form knowledge of a particular situation. From their “map” of reality the individual develops a “model” of their situation (Hayek 1952). This map is in a constant state of *evolution* with the incorporation of new apparent (Hume 1777) and created (Kant 1781, Koestler 1964, Koestler 1978) relations between the objects of reality and the fading of the old.

Within their analysis of the decision environment the individual construes the outcomes they think will follow from various courses of action. That is, they form *expectations* of the *implications* of buying/selling, producing/exchanging this, that and the other. These implications take the form of chains of connections originating at various courses of action in the individual’s understanding. They are endowed a *feeling* by the consciousness, and feeling endows *aesthetic* qualities and aesthetic qualities imply preference. Out of a set of courses of action which are feasible the individual *decides* on that associated with the most preferable outcomes they *think* will attend upon them.

To change behaviour *requires* then either that we change the set of feasible actions (which traditional economic theory covers well), change the environment about which individuals think (change the information which is feeding into the psychological process), or change the *way* in which they think about it (change their mental networks).

Necessary conditions for behavioural change: In perception, analysis, decision and psychological evolution

To change the way an individual behaves requires we change that action with which they think the most preferable implications are associated out of all feasible courses of action. This requires the satisfying of various conditions at all stages of the psychological process; perception, analysis, decision and evolution. We might take these in reverse order, starting with the most obvious requirements and concluding with the most subtle.

Mental evolution: Ensuring requisite knowledge exists

If we are to change that action with which the individual thinks the most preferable implications are associated out of all feasible courses of action, we need to ensure first that they have the basis for so thinking. That is to say, we need to ensure that the requisite *knowledge* for selecting some new course of action is present in their minds (Polanyi 1967), contained within their mental networks, so that it can be applied to forming what the individual thinks are the most preferable implications are associated out of all feasible courses of action. If this knowledge isn’t present, then we need the idea which comprises that knowledge to be *assented to*, to use the phrase of Newman (1870). We need it to be accepted and incorporated into the mind.

The likelihood that this will occur (we can’t be certain - it is a matter for resolution by the consciousness) is governed by Made to Stick theory (see Markey-Towler (2016a) and Heath and Heath (2007)). The idea, a set of connections, is the more likely to be accepted:

1. The simpler the idea - the less connections it contains.
2. The more of the idea is *already* contained within the mind- the more connections in it are *already* contained within mental networks.
3. The more *noticeable* the concepts the connections in the idea connect - the greater impression they have on the sensory organs (eyes, ears, nose, mouth, skin).
4. The less those connections would change the *core* of personality- the less they would exist at the centre of mental networks.
5. The less those connections are dissonant with elicited knowledge- the fewer connections the idea contradicts which are currently elicited in the mind

The first barrier therefore to inducing behavioural change is simply the getting of the requisite knowledge into the mind, and the manner of its amelioration is to be able to reduce the requisite knowledge for behavioural change to a *simple idea connecting objects with a powerful hold over the individual’s attention which would build on ideas at the core of the individual’s personality without contradicting them*.

Decision: rules, needs and compliments impeding substitutability

That's how to get the idea into the individual's mind, but what form must that idea take? The form of that idea must create a state of substitutability for current behaviour (Markey-Towler 2017a). A state of substitutability exists if the outcomes the individual thinks will follow from two courses of action are roughly equivalent in terms of preferability. If a state of substitutability exists, standard marginal analysis applies and we need only improve the outcomes the individual thinks will attend upon A to have the outcomes of B traded off against for them.

The trouble is that we might be misled as to how ubiquitous a state of substitutability is if we are trained in neo-classical economics, which tends to assume its universality (Drakopoulos 1994, Drakopoulos and Karayiannis 2004, Earl 1983, Earl 1986a, Earl 1986b). This might not be the case for three psychological reasons in particular, as is discussed in Markey-Towler (2017a).

Mental networks may encode behavioural *rules* which impose *cutoffs* in the psyche which various courses of action *must* meet before they can be potentially substitutable for others, no ifs, buts or maybes. There is also, though economists have traditionally been rather uncomfortable with it, a distinction between *needs* and *wants*. One exception to this discomfort (in addition to Peter Earl) is Ironmonger (1972), and here as in general, the non-obsolescence of needs means that until the *needs* satisfied by current behaviours are satiated by some new course of action, it cannot be substitutable for current behaviours. Finally, it might be the case that some course of action is non-substitutable for another because some compliment is infeasible. There might be some yet *other* course of action C with which A is complimentary and which must be feasible for taking alongside A before A can be substitutable for B.

The second barrier therefore to inducing behavioural change are the impediments to the existence of a state of substitutability: the cutoffs imposed by behavioural *rules*, the necessity of meeting *needs* and the availability of compliments. The manner of its amelioration is to either have some desired course of action meet cutoffs imposed by behavioural *rules*, satisfy needs, and or have necessary compliments made available. Of course, this may be infeasible, and in this case we can still engineer behavioural change, but we must delve wholesale into psychological processes to prevent the rules, needs and complementarities which would present barriers to behavioural change from being elicited by the environment by perception and analysis.

Analysis: changing the framing of a decision environment using “anchors”

If we are going to change the outcomes of the psychological process wholesale, change the way an individual *thinks* about a situation, then we need to consider what factors might change the entire analytical process in the psyche. George

Kelly (1963) taught that objects don't really make sense in our mind until they are related to “axes” which may be used to categorise them (consonant with the thinking of Hayek (1952)). Thus the necessity, in fact, of psychological *anchors*: elements of the mind, percepts, which serve to relate to others and thereby categorise, compare and contrast them.

These anchors are only really interesting to behavioural economics if they are *non-inert*. To say that an anchor is non-inert is to say that when they are included in an individual's percepts and the connections concerning them elicited, they have an effect on preference between the outcomes expected to attend upon various courses of action (Markey-Towler 2017b). Behavioural economists have discovered many such anchors (Earl 2015), the most famous being peer, societal and past-self reference levels for consumption, income and other economic behaviour (Veblen 1898, Duesenberry 1949, Kahneman and Tversky 1979, Easterlin 2001, Clark, Frijters, and Shields 2008, Frank 2011). They may also be a visceral or emotional factor which casts the implications of some course of action in a completely different light when elicited (Elster 1998, Loewenstein 1996, Loewenstein 2000).

Of course, such anchors need not make especial “rational” sense on the surface ((Ariely 2008) is packed full of amusing examples), such as the anchor of having one's car stolen when making the decision between holidays in Paris or Rome. That said, they may often make sense when more subtle considerations are recognised, for instance, the possible likelihood relation existing between having one's car stolen in Paris or in Rome (remember, the individual *themselves* construes these connections, not the people manipulating their environment) which would make the one less preferable than if having one's car stolen wasn't being considered at all.

A third barrier to behavioural change therefore is the impediment potentially imposed by non-inert psychological anchors. Those which make the thinking about some course of action A more preferable, and that about B less preferable need to be elicited as a percept, and those which make the thinking about B more preferable, and that about A less preferable, need to be suppressed as a percept. The question is, now, how do we elicit certain percepts, and how to we suppress others?

Perception: The “follow-on” and salience properties

Decision operates on analysis, and analysis - thinking - operates on perception. If some object is not perceived, it won't be thought about, and if it is, it will. It is a simple concept - we only think about what we *see* in our mind's eye, almost by definition. But what we *see* as a result of the environment we find ourselves in is remarkably sensitive to the information presented in that environment and even the *way* that information is presented. This is because of two properties of the perception, the “follow-on” and salience properties.

The “follow-on” property of perception is a corollary of the manner in which “perceptron” networks in the brain work

(Kandel, Schwartz, Jessell, Siegelbaum, and Hudspeth 2013, Appendix A). If some percept A in the mind - some symbolic representation of an object of reality - is sufficiently strongly connected to some other B, then the perception of A will cause the perception of B (Markey-Towler 2017b). For instance, in the minds of many Australians at least the concept of “air conditioning” is associated strongly with the concept of a “cool climate”, and since shopping malls are strongly associated with “air conditioning” they will be, because of their connection, elicited simultaneously. In a different connection, much of the art of Rhetoric depends critically upon the ability of the speaker to avoid eliciting the negative connotations associated with various words and concepts by way of this property of perception. To call to mind one concept is typically to call to mind many. This is the basis for the “representativeness” and “availability” heuristics whereby things are thought of by reference to what is thought “representative” of them or what is most “available” in the psyche for their judgement.

The salience property of perception originates in a well known fact about perception (Vernon 1962, Bordalo, Gennaioli, and Shleifer 2013) which is summarised by a useful tautology: we notice only what is *noticeable*. The concept of *noticeability* is actually quite concrete. Information is more *noticeable* the greater the impression that information has on the sensory organs; the greater impression of sound on the ear, light rays on the eyes, taste on the tongue, smell on the nose, touch upon the skin. The greater that information “stands out” the more likely it is to be perceived. If the noticeability, the salience, of the information corresponding to some percept A in the mind relative to the overall salience of the environment is sufficiently large then that information will be perceived and the percept A elicited (Markey-Towler 2017b). This is the basis for “extreme event bias” (Tversky and Kahneman 1974, Tversky and Kahneman 1981, Kahneman 2003), the reason why “visceral” emotions dominate thinking (Loewenstein 1996, Loewenstein 2000, Elster 1998) and why the non-salient future is hyperbolically discounted relative to the present (Rick and Loewenstein 2008, Frederick, Loewenstein, and O’Donoghue 2002).

These properties make most sense as potential impediments to behavioural change from some behaviour B to some other behaviour A insofar as they present the means by which non-inert psychological anchors (or, for that matter, rules, needs and compliments) are elicited and repressed in perception. The “follow-on” property informs us that percepts strongly connected with non-inert anchors which improve the preferability of thinking about A and disimprove the preferability of thinking about B need be elicited, while those which disimprove the preferability of thinking about A and improve the preferability of thinking about B need be suppressed. Any percept, those connected to non-inert anchors, or the anchors themselves may be elicited or suppressed the more or less noticeable the information corresponding to them in the environment is, the greater or lesser the impression that information has on the sensory order.

Conclusion: a checklist of barriers to be overcome

Behavioural economics is always ultimately about behavioural change, which offers business strategists and marketers a radically expanded suite of means by which they may affect behavioural change to buying their product and thereby earn a living. We have taken a slightly different approach here to the typical approach of behavioural economics of isolating various sufficient conditions for behavioural change. Instead we have sought to identify the *necessary* conditions for behavioural change using a model of the psychology of economic behaviour developed at the University of Queensland.

These necessary conditions give us a checklist, of sorts, of impediments to behavioural change and suggest means by which they may be ameliorated. If we wish the individual to change their behaviour we must change that action with which they think the most preferable implications are associated out of all feasible courses of action. If we are to get them to engage in some behaviour A rather than B we require that:

1. If the knowledge requisite to support the selection of A is not currently extant in the mind of the individual, for that knowledge to be reduced to a simple idea connecting objects with a powerful hold over the individual’s attention which would build on ideas at the core of the individual’s personality without contradicting them.
2. Any impediments to a state of substitutability existing between A and B - the cutoffs imposed by behavioural rules, the necessity of meeting needs and the availability of compliments - be removed by either satisfying requirements imposed in the psyche for such a state to exist, or suppressing the mental structures which impose those requirements.
3. Those non-inert psychological anchors which make the thinking about some course of action A more preferable, and that about B less preferable need to be elicited as a percept, and those which make the thinking about B more preferable, and that about A less preferable, need to be suppressed as a percept.

Checkpoints 2. and 3. are provided with “sub-clauses” by the “follow-on” and salience properties of the perception:

- Those percepts which, due to requirements 2. and 3. need to be elicited may so be by ensuring that the information corresponding to them is more noticeable in the environment (makes a greater impression on the sensory organs). Those percepts which, due to requirements 2. and 3. need to be suppressed may so be by ensuring that the information corresponding to them is less noticeable in the environment (makes a lesser impression on the sensory organs).
- Those percepts which, due to requirements 2. and 3. need to be elicited may so be by ensuring that the information corresponding to percepts strongly connected

to them in the mind is more noticeable in the environment (makes a greater impression on the sensory organs). Those percepts which, due to requirements 2. and 3. need to be suppressed may so be by ensuring that the information corresponding to percepts strongly connected to them in the mind is less noticeable in the environment (makes a lesser impression on the sensory organs).

How do we, as business strategists and marketers win customers and influence people? We must apply this checklist and ensure that its dictates about the impediments to behavioural change and the means by which they may be ameliorated are met. We can see that this checklist requires knowledge on our part which is subtle, intricate and individuated, but such is the nature of psychology. Removing the impediments to behavioural change is not an impossible task, but it is a difficult one and at each step we might do well to ask ourselves whether it is worth trying to remove this or that impediment to behavioural change is worth the additional customers obtained, or whether the old-fashioned method of finding a market of ready customers and producing for them is a more effective use of resources.

Behavioural economics therefore provides a new and expanded set of tools for business. But it is no panacea, people are still stubborn and difficult to change purposefully even while their behaviour can change regularly, and behavioural economics remains but one tool for winning custom and earning a living alongside the old fashioned methods of finding, cultivating, and maintaining a ready market.

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