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Behavioural economics for healthcare market research and brand communication

Having an understanding of the psychology underlying people's behaviour can help in pharma market research and communications. **Kim Hughes** outlines some examples and experiments in behavioural economics that can be applied to improve outcomes in the health care sector.

Behavioural economics gives the psychological explanation of why we do not always act to create the financial maximisation that economic models predict. Its significance led to both Herbert Simon (1955) and Daniel Kahneman (2002) winning the Nobel Prize for Economic Sciences.

Kahneman wrote a thesis about our decision taking being dominated by subconscious (fast) thinking, which is subject to predictable biases.

Others, like Richard Thaler, have built upon this idea since, with the result that governments are actively investigating how they can apply behavioural economics to lower the cost of unwanted consumer behaviours, particularly around healthcare.

The following examples show how behavioural economics has been applied in market research and what impact it can have on improving the overall effectiveness of healthcare communications.

Case study: Ontario Water Company

A good demonstration of applied behavioural economics comes from the Ontario Water Company. Faced with the prospect of having to build a second water filtration plant at great expense, the local authority wanted to encourage residents to reduce water consumption instead.

Unsure what sort of campaign would be most successful, they created a controlled experiment to compare standard leafleting (explaining the per-household cost if consumption were not reduced) to an approach embodying some behavioural economics principles.

The second sample used students to explain the imperative need to reduce consumption and asked households to sign a commitment 'contract', also placing a sign on their garden hose tap to remind them of their pledge.

In this second social 'contract' group, consumption initially fell by 22 per cent and levelled off below the target reduction. In the leafleted group, consumption actually increased by nearly 10 per cent.

The results of this test have potentially powerful implications for healthcare communications, where we always assume that education is power. How many patient leaflets are actually reinforcing the bad behaviours that healthcare professionals are trying to correct in the same way the water company leaflets did?

Unpicking some of the theories behind behavioural economics can shed some light on a potential roadmap for greater success in healthcare.

Kim Hughes

Heuristics and anchors

Behavioural economics looks at the biases (or heuristics) that work as anchors to impact our subconscious decision taking. Meta-analysis shows that these can be categorised into three groups:

Social biases. eg. social contracts, as per the Ontario Water Company example

Personal biases. eg. the greater motivation of a smaller immediate reward versus a much larger future one

Environmental biases. eg assuming something that we have heard of more often is more common, even in the face of obvious facts to the contrary.

Social biases

Social biases can be valuable healthcare allies. Here are some examples:

- In 2013 Harvard Business Review reported on a study in North Carolina that showed using a social motivator, in the form of a sign asking healthcare professionals to protect their patients by washing their hands, was more successful than suggesting they protect themselves.
- Based on Richard Thaler's theory that people don't pursue their own best interests, a French designer has crafted an inhaler that changes to a sickly colour if it is left unused. The pallor is both a reminder to use it and, because the vibrant colour returns after use, 'it taps into a child's desire to help others [even an inanimate disk] feel better'.

Personal biases – the benefit of immediate reward

Experiments on common anchors show that personal biases are not necessarily embedded in our subconscious over a period of time, but can be introduced to great effect close to the point of decision. Here are some healthcare examples:

When applied to smoking cessation, the most successful Apps include immediate rewards, such as a running total of cigarettes not smoked, and the money saved to date. This sense of daily success provides greater motivation to continue a 'quit attempt', than the avoidance of a more distant potential chance of cancer. A recent study tested the effectiveness of voucher-based reinforcement therapy to motivate abstinence from smoking by pregnant women. The programme incorporated a number of behaviourally informed features, most notably frequent, mounting payments for documented abstinence.

The programme significantly increased smoking cessation rates at the end of pregnancy (41 per cent vs 10 per cent) and the benefit was still evident 12 weeks postpartum (24 per cent vs 3 per cent).[1] Most of us have been subject to the power of asymmetrical bias, a good example of which is the introduction in cinemas of medium-size containers of popcorn at almost the same cost as the large size, the impact of which is to significantly increase

> **"How many patient leaflets are actually reinforcing the bad behaviours that healthcare professionals are trying to correct?"**

sales of the large.

In another anchor experiment when a group of people were asked, "Is the percentage of African countries in the UN above or below 65 per cent?" the average estimate was 42 per cent. When the same question was asked with 35 per cent as the figure instead of 65 per cent, the average estimate fell to 21 per cent. This has been repeated in numerous similar experiments involving price estimation.

Behavioural economics shows that personal biases can significantly impact behaviour, so we need to be supremely vigilant that we do not inadvertently introduce a bias into market research questionnaires.

However, behavioural economics also shows how we can use biases to help create desired perceptions, which has significant implications for healthcare communications

Richard Thaler's book 'Nudge' has excited governments as in it he shows some very low-cost, high-impact interventions.

Loss aversion

As well as highlighting people's desire for immediate gain, behavioural economics shows us that we are more motivated to avoid a negative outcome than we are to embrace a positive one, a bias usually referred to as 'loss aversion'.

Loss aversion means that we value items that we already own (or behaviours we already exhibit) more highly than if we did not have them. Some examples are below:

Kahneman and Amos Tversky showed that most people will refuse a toss of a coin bet even if the possible gain is $150 and the potential loss only $100.

Robin Dawes (2004) also found that price increases were twice as likely to create a change in behaviour compared to price decreases.

The New Yorker presented an analysis that showed that Americans rejected healthcare reform based on fear of loss, which was even present among those who would gain more than they would lose.

Loss aversion is even more important in the rightly conservative world of healthcare than in other areas. For example John von Neuman (2008) showed that the four out of five top attributes driving the choice of hospital for women in childbirth were based on loss aversion not motivation by a positive choice.

Environmental bias

Environmental biases are significant. For example if something is often seen in the media then it is believed to be commonplace, and things that are believed to be commonplace in general have been shown to have greater motivational impact. Clearly marketing and communication can have a very significant role to play in creating these biases.

Beliefs about what is commonplace can lead to the wrong decisions, even with health brand decisions. For example, the choice of a health insurance provider is correlated as much with awareness as best value.

Incorporating behavioural economics into market research

It is important to incorporate behavioural economics thinking into both market research creation and application. However, with so many biases we know that respondents are poor observers of their own behaviour.

Therefore we need to be very careful when scanning all market research questionnaires for unwanted biases in the questions, or reporting claimed behaviour, ideally verifying with actual or observed behaviour. Ethnography, patient record forms and using careful language analysis rather than direct question and answer in qualitative research, and bias-free trade-off analysis in quantitative research, can help us to provide more accurate data and identify behavioural tipping points.

Attention should also be paid to discussing the value of positively introducing biases into communications that are being tested, in order to understand which anchors are most effective in creating the desired behaviour.

Anchors are not only elements to be wary of, but they can be powerful tools and help to create low-cost (personal, social or environmental) nudges of behaviour to benefit both healthcare brands and patient health.

Reference

[1] Heil SH, Higgins ST, Bernstein IM, Solomon LJ, Rogers RE, Thomas CS, *et al.* Effects of voucher-based incentives on abstinence from cigarette smoking and fetal growth among pregnant women. *Addiction* 2008; 103:1009-18.

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About the author

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He worked as a strategic brand planner with Bates Advertising London before becoming strategic planning director for the Fortune group of advertising agencies in Australia (Dancer Fitzgerald Sample, the Weston Company, Schofield Sherban Baker and Hammond Advertising).

On returning to the UK in 1987 Kim established THE PLANNING SHOP international with Tina Berry, another strategic planner. He pioneered the company's healthcare division and eventually bought it out and established it as a separate company.

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