

There are a number of key behavioural biases in the field of BE which affect consumer decisions about financial products.

## Behavioural Economics

### The answer to the protection gap?

Technology is changing every aspect of our lives. The technological revolution is a player in the paradigm shift our industry is currently in the midst of, with change at both a pace and scope never seen before. This technological revolution is – thankfully - challenging the age old adage that insurance is sold, and not bought.

Part of the change we have seen technology have in our industry has, of course, been the advent of underwriting engines and, hand in hand with that, the development of the direct-to-consumer (DTC) sales channel, a development which is allowing us greater access to write business in the middle market - a market which has been historically underserved by the advisor force, around the globe. Thus far, direct distribution has not and is not expected to displace traditional channels; rather it is helping insurers reach consumers in a simple, fast and trusting environment<sup>1</sup>.

Along with the growth and development of technology solutions, we have seen the rapid emergence, increasing awareness and acceptance of the field of Behavioural Economics (BE). BE studies the effects of psychological, social, cognitive, and emotional factors on the economic decisions of individuals and institutions and the consequences for market prices,



The technological revolution challenges the age old adage that insurance is sold, and not bought.

returns, and resource allocation<sup>2</sup>. More simplistically, it is psychology as it relates to the economic decision-making process of individuals and institutions. BE has now been widely adopted in various fields, with Behavioural Economists now a key part of several academic and government organisations, advisory bodies, public health groups and expert panels<sup>3</sup>.

1 PwC. (2012) Insurance 2020: Turning change into opportunity. Retrieved from: [www.pwc.com/insurance](http://www.pwc.com/insurance)

2 Lin, T.C. W. (2012). A Behavioral Framework for Securities Risk. 34 Seattle University Law Review 325. Retrieved from: <http://ssrn.com/abstract=2040946>

3 National Institute on Aging, National Institutes of Health. (2013).



Consumer decision-making is 10% rational and 90% emotional.

Traditional economic theory tells us that people act rationally, making decisions that maximise the value they receive from a product or service by weighing up the costs and benefits of each choice<sup>4</sup>. The real world experience is, however, that people do not always make rational choices – indeed the science of BE suggests that decision-making is 10% rational and 90% emotional<sup>5</sup>. The principles of BE seek to explain the reasons for this.

The esteemed Psychologist Daniel Kahneman is one of the founding fathers of BE and author of the international best seller 'Thinking fast and slow'. Kahneman has completed decades of research in psychology resulting in his receiving the

2002 Nobel Peace prize in Economic Sciences - an award he would have shared with his research partner of several decades, Amos Tversky, who sadly passed away beforehand.

Kahneman established a cognitive basis for common human errors which arise from heuristics and biases and, with Tversky, developed 'Prospect Theory'. Heuristics are commonly defined as cognitive shortcuts or rules of thumb that simplify decisions, representing a process of substituting a difficult question with an easier one (Kahneman, 2003). Heuristics can lead to cognitive biases. Cognitive biases are systematic errors in thinking, in the sense that judgement deviates from what would be considered desirable from the perspective of accepted norms or correct in terms of formal logic<sup>6</sup>. Kahneman & Tversky's groundbreaking 1979 paper 'Prospect Theory: An Analysis of Decision under Risk', challenged the then accepted economic concept of utility theory (the theory that people make rational choices to maximise their satisfaction), by documenting that people tend to behave differently under risk, depending on whether they are facing a potential loss or a potential gain.

Psychological Science and Behavioural Economics in the Service of Public Policy. Retrieved from: <https://www.nia.nih.gov/about/events/2013/white-house-workshop-psychological-science-and-behavioral-economics-service-public>

- 4 Dolan, P., Hallsworth, M., Halpern, D., King, D. & Vlaev. (2010). Mindspace: Influencing behaviour through public policy. Retrieved from Cabinet Office, Institute for Government website: <http://www.instituteforgovernment.org.uk/our-work/better-policy-making/mindspace-behavioural-economics>
- 5 Grant, K. (2014). Consumer Emotion – Measuring Trust, Value and Loyalty in the Protection Area. Retrieved from: <https://www.hannover-re.com/923560/our-offices#/overlay/69746?firstLevel=71259>

- 6 Samson, A. (2014) The Behavioural Economics Guide 2014 (with a foreword by George Loewenstein and Rory Sutherland) (1st ed.). Retrieved from <http://www.behaviouraleconomics.com>.

Kahneman has suggested that people have two modes of thought – fast thinking, or intuition (System 1) and reasoning, or slow thinking (System 2)<sup>7</sup>. When making complex decisions we use both systems (system 1 edits or simplifies, system 2 evaluates and reasons), however our reasoning just accepts the answers that our intuition provides.

Intuition is, however, not always right and biases in decision-making can occur when intuitive processes lead people astray. Prospect theory proposed that people behave differently under risk, depending on whether they are facing a potential loss or a potential gain, underweighting outcomes that are merely probable in comparison to outcomes that are obtained with certainty<sup>8</sup>. In other words, why buy a life insurance policy which will only come with a probability of paying me money, but will most certainly cost me money? Further, they suggested that psychologically, people are loss averse, putting much greater weighting on losses than gains – why lose R1,000 pa buying that life insurance policy that will probably not result in any gain?



People behave differently under risk, depending on whether they are facing a potential loss or a potential gain.

7 Kahneman, D. (2011). Thinking, fast and slow. New York. Farrar, Straus and Giroux.  
8 Kahneman, D. & Tversky, A. (1979). Prospect Theory: An analysis of Decision under Risk. *Economterica* 47(2), 263-292.

There are a number of key behavioural biases in the field of BE which affect consumer decisions about financial products<sup>9</sup>. Such biases can lead our potential clients to delay the buying decision, buy the wrong type of product, not buy the level of cover they require or indeed, not proceed with a purchase at all. Some examples of such biases include:

**Present Bias:** Time inconsistent preferences or preferences for immediate gratification. The ‘enjoy it now, worry about it later’ mind set, which provides a partial explanation for why consumers discount future eventualities<sup>10</sup>. Rather than dwelling on unpalatable future possibilities, today’s consumers focus on the here and now – instead of providing for the unimaginably distant prospect of retirement or future illness, they focus on ‘just in time’ financial planning<sup>10</sup>.

**Bounded willpower:** This suggests we have trouble following through on rational plans.

**Bounded rationality:** When presented with complex difficult maths or many different moving parts, we often make decisions that aren’t in our best interests. Rationality is bounded because there are limits to our thinking capacity, the information available and time.

**Loss aversion:** Psychologically, people put much greater weight on losses than gains. Studies have shown that losses are felt roughly twice as much as gains of the same magnitude<sup>11</sup>. Loss aversion is an important BE concept associated with prospect theory, captured by the saying ‘losses loom larger than gains’<sup>12</sup>.

9 Erta, K., Hunt, S., Iscenko, Z. & Brambley, W. (2013). Applying behavioural economics at the Financial Conduct Authority, Occasional Paper No.1. Retrieved from Financial Conduct Authority website: <https://www.fca.org.uk/static/documents/occasional-papers/occasional-paper-1.pdf>  
10 Grant, K. (2013). Navigating a route for protection. Retrieved from: <https://www.hannover-re.com/923560/our-offices#/overlay/69746?firstLevel=71259>  
11 Kahneman D, Kneutsch JL, & Thaler RH. (1991) Anomalies: the endowment effect, loss aversion and status quo bias. *J Econ Perspectives*, 5(1), 193-20  
12 Kahneman, D. & Tversky, A. (1979). Prospect Theory: An analysis of Decision under Risk. *Economterica* 47(2), 263-292.



Greater accessibility to life insurance has not resulted in an increase in consumption.

**Status quo bias:** This can be defined as the path of least resistance, or default – continuing to do what one has been doing; sticking with what worked in the past is a safe option as long as previous decisions are good enough<sup>13</sup>. This bias is evident when people prefer to have things stay the same by doing nothing.

**Framing:** This is part of prospect theory; choices can be worded in a way that highlights the positive or negative aspects of the same decision, leading to changes in their relative attractiveness. Different framing approaches have been identified, including, for example, goal framing – i.e. offering a R5 reward vs imposing a R5 fine.

**Overconfidence:** This is observed when people's subjective confidence in their own ability is greater than their objective (actual) performance<sup>14</sup>.

If you consider the above BE biases, it is easy to see why people delay the decision to purchase life insurance, buy the wrong product or amount, or don't buy at all - and, perhaps, why the global issue of the protection gap continues to exist today. Twenty years ago, you could only buy life insurance from an agent. Today, you can buy life insurance everywhere – the supermarket, an adviser, on the internet, over the phone – yet despite this, on a global basis, sales are down - greater accessibility has not resulted in an increase in consumption. BE and its associated sciences gives us some insights into how we can address this.

Behavioural insights (BI) use the teachings from BE, behavioural science and psychology to help influence choices – giving clients a 'nudge'. According to nudge theory, positive reinforcement and indirect suggestions can be used to influence decision-making, at both an individual and group level. BI theory provides a set of principles, known as the EAST principles, designed to develop positive behavioural change:

13 Simon, H.A. (1956). Rational Choice and the Structure of the Environment. *Psychological Review* 63(2): 129–138. Doi:10.1037/h0042769.

14 Samson, A. (2014) *The Behavioural Economics Guide 2014* (with a foreword by George Loewenstein and Rory Sutherland) (1st ed.). Retrieved from <http://www.behaviouraleconomics.com>.

- Easy – remove obstacles and simplify communications to ensure key messages are recognizable, easy to understand and are taken up.
- Attractive – attract attention to the message through colour, images and personalization. Offer incentives for desired behaviours.
- Social – use personal commitments and support to drive an outcome.
- Timely – deliver key messages at the right time and make the costs and benefits more immediate<sup>15</sup>.

We can look around the globe to see various examples of success in use of the principles of BE, with business, regulators and policymakers using these insights to better understand market and consumer behaviour. In Australia, the Chairman of the Australian Securities and Investments Commission (ASIC), Greg Medcraft, has noted that the undertaking of evidence-based studies about how people think and behave in the real world is going to be increasingly important to smarter regulation, with studies providing valuable insights into how people make decisions and how ASIC can improve outcomes<sup>16</sup>. Likewise in the UK, the Financial Conduct Authority (FCA) has noted that people often make errors when choosing and using financial products and can suffer considerable losses as a result. Using BE we can understand how these errors arise, why they persist and what can be done to ameliorate them<sup>17</sup>.

---

The recognition from regulators that we can use the principles of BE to ameliorate our clients' buying errors and better inform them is a wonderful endorsement of BE. There are many examples of the outcomes of trials utilising these principles from around the globe, such as this small sample:

- 15 Behavioural Insights Team. (2015). The Behavioural Insights Team Update report 2013-2015. Retrieved from the Behavioural Insights Team website: [http://www.behaviouralinsights.co.uk/wp-content/uploads/2015/07/BIT\\_Update-Report-Final-2013-2015.pdf](http://www.behaviouralinsights.co.uk/wp-content/uploads/2015/07/BIT_Update-Report-Final-2013-2015.pdf)
- 16 ASIC. (2015). Increasing use of behavioural economics across its regulatory business. Retrieved from: <http://asic.gov.au/about-asic/media-centre/find-a-media-release/2015-releases/15-059mr-asic-increasing-use-of-behavioural-economics-across-its-regulatory-business/>
- 17 Erta, K., Hunt, S., Iscenko, Z. & Brambley, W. (2013). Applying behavioural economics at the Financial Conduct Authority, Occasional Paper No.1. Retrieved from Financial Conduct Authority website: <https://www.fca.org.uk/static/documents/occasional-papers/occasional-paper-1.pdf>

- In the UK, the FCA worked with a firm that was writing to almost 200,000 customers, offering redress for a mis-sold product. The firm's original letter, designed without the use of any behavioural economic 'nudges', had a low response rate - around 1.5%. The problem was how the information was presented in the letter. A randomised controlled trial was conducted, testing different versions of the letter with interesting results:

- Reducing the amount of text more than doubled the response rate – increasing it by 128%.
- Explaining to readers that the claims process would only take five minutes again almost doubled the response rates – by 91%.
- Sending out reminders increased the response by 93%.
- Most impressively, putting the main thrust of the message in bullet points at the top of the letter almost tripled response rates, with an increase of 271%.

Hence, very subtle alterations were able to effect considerable improvements, moving the level of response from an unimpressive 1.5% to a more respectable 11.9% - equivalent to an additional 20,000 people responding – or over half a million pounds in extra compensation<sup>18</sup>.

- There are many examples in the UK of the use of BE in policymaking (collecting delinquent taxes, energy efficiency, job search assistance for the unemployed), so much so that in the US, the National Institute on Ageing and the National Institute of Health called on the experiences of the UK's Behavioural Insights Team during its 2013 White House-sponsored Washington DC meeting 'Psychological Science and Behavioural Economics in the Service of Public Policy'. This meeting sought to gain insights from the UK policy experience in order to highlight the potential for social and behavioural research to play a more influential role in the service of public policy in the US<sup>19</sup>.

- 18 Wheatley, M. (2014). Making competition king – the rise of behavioural economics at the FCA. Retrieved from: <https://www.fca.org.uk/news/making-competition-king>
- 19 National Institute on Aging, National Institutes of Health. (2013).

- BI methodology has been successfully trialled in Australia in the arena of workers' compensation. Developing a methodology based on BI principles, injured workers were returned to work 27% faster in the first 90 days and 17% faster in the first 150 days following injury, results which have been independently reviewed and confirmed by PwC. This results in significant ongoing benefits such as improvement in productivity for insurers and employers in the reduction of unnecessary communications, reduction in the number of follow-up medical assessments being but two examples<sup>20</sup>.

---

From the life insurance industry perspective, it has become clear that there are many clients, particularly in the middle market, who do not want to be sold to; rather, they want to make informed decisions when it comes to buying life insurance. In order to help them to do so, we must develop systems and strategies that are agile, adapting to different buying situations, and have products available that are simple enough

Psychological Science and Behavioural Economics in the Service of Public Policy. Retrieved from: <https://www.nia.nih.gov/about/events/2013/white-house-workshop-psychological-science-and-behavioral-economics-service-public>

20 Myer, R. (2015). Buying into Better Health. Journal. Australian and New Zealand Institute of Insurance and Finance 38(4).

for them to understand. We know that a protection gap exists in most countries and we also know that the reasons for this are product complexity, price (with most people over-estimating the price), lack of trust in the industry, a complex buying process and failure to recognise the need. Adopting the principles of BE, we can overcome many of these reasons by understanding people's behaviour better, helping them to overcome their biases and make better choices.

There are many ways in which we can do this, with the BI EAST principles giving us many insights as to how to do so. Hannover Re has experience in tailoring solutions to individual clients needs, including using the principles of BE in doing so – be it framing a question or using goal framing to reward healthy behaviours in policyholders. We would be pleased to assist your organisation in utilising the fundamentals of BE to enhance your client offering.

## Author



### Tracy Peterson

Chief Underwriter

Hannover Life Reassurance Bermuda

Tel: +1 441 279 1146

Tracy.Peterson@hhr.bm

The opinions expressed in this publication are those of the authors and this publication is subject to copyright. Apart from any fair dealing for the purpose of research or private study, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission in writing of Hannover Life Re Africa (Pty) Ltd. Single copies may be made for the purposes of research or private study. Multiple copying of the content of this publication without permission is always illegal.

## Published by

Hannover Re Group Africa (Pty) Ltd.

Tel. +27 11 481-6783

[lifetrends@hannover-re.co.za](mailto:lifetrends@hannover-re.co.za)

Hannover Re House, Corner Hillside and Empire Roads, Parktown, Johannesburg, 2193. All rights reserved.