Spotlight

Barriers and Biases in Pharma Research – Part Two: Behavioural Economics in Action

A collaboration with Nick Southgate PhD

Introduction

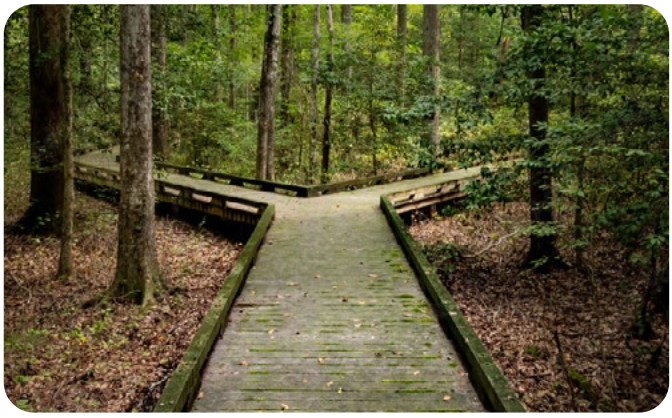
In the first article in our Barriers and Biases in Pharma Research series, we looked at the role of cognitive biases and heuristics in simplifying complex choices to produce imperfect but 'good enough' decision–making.

We might think there are times when 'good enough' is not enough – and that medicine is one of those times. Here we will see how doctors are also liable to cognitive bias, and why medicine produces a range of 'good enough' decisions and not a perfect decision for every occasion. These 'good enough' decisions often favour old solutions over new ones – and doctors' discussions of them are surprisingly hard to get inside and understand fully.

Evidence that experts show bias

Medical practice is designed to correct individual bias. Checks and balances exist to ensure drugs are used safely and responsibly and to eliminate dangerous errors. However, within these boundaries doctors can still make very different decisions. As the classic experiment below shows the differences can be both unexpectedly large and seemingly self–contradictory.

In 1995, Redelmeier and Shafir devised a decision experiment which asked GPs to decide between two treatment courses for a patient scheduled for hip replacement: 1) proceed with surgery or 2) delay surgery to try further pain medicine.



The patient background was identical in wording for both surveyed groups. The decision was also the same – shortly before the planned hip replacement surgery, the patient records showed they had previously tried several nonsteroidal anti-inflammatory drugs but have not yet been tried on a course of pain relief with other common pain relief drugs.

The only difference was introduced here: group one were told that the patient had not had a course of ibuprofen and group 2 were told that the patient had not had a course of ibuprofen or percadin.

So, what happened?

The results suggest that if there is ONE chance of postponing surgery it is the correct course of action half the time. This produces a hypothesis for the outcome of group 2: if ONE option is good, then surely TWO is better and more should postpone.

In fact, fewer postpone surgery. The authors suggest this is because choosing between the delaying options adds cognitive effort and makes the status quo (planned action) easier to choose.

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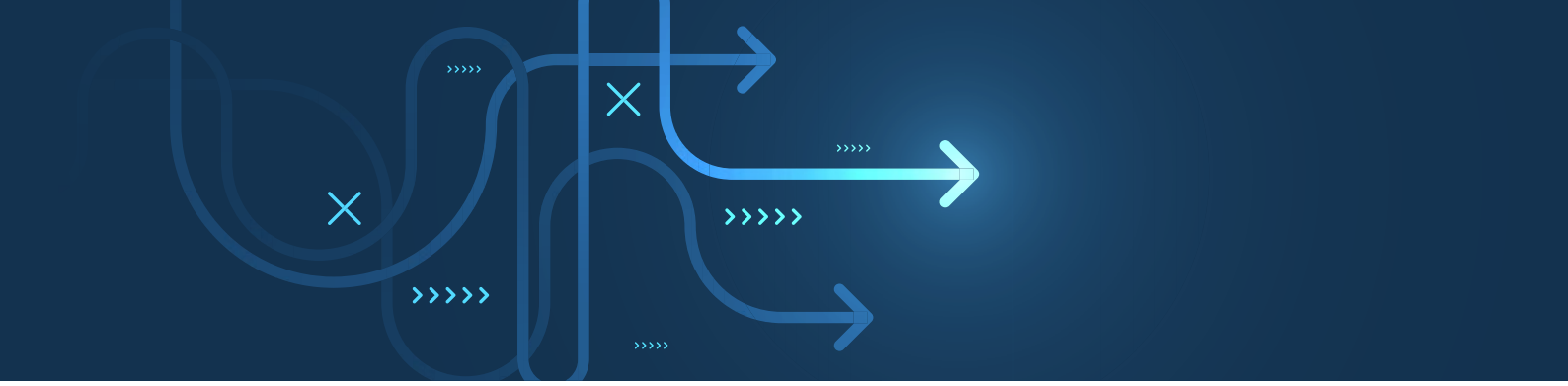

The number of choices matters

Redelmeier and Shafir demonstrate the power of 'choice architecture'. In the first scenario pain relief and surgery are closely matched. However, when two closely matched pain relief choices are available, and hard to choose between, the surgery is framed as a clear alternative.

This suggests some simple considerations for positioning treatment options.

Close choices tend to get pushed together

When faced with close choices it is harder to make a strong case for any of them. Doctors can embrace this and assert all choices are the same, stripping out all differences, even meaningful ones. Once this move is made, doctors can ignore choices or chop and change at will without feeling anything is being lost.

Clear choices can multiply

The above might imply that more choices will inevitably lead to loss of differentiation. This is not true. There is no optimum number of choices, if all the choices are clearly differentiated. Messaging and targeting can make choices feel clearer even when they are small.

Maximising is not a pragmatic strategy

What doesn't happen is that doctors learn all the choices and process them equally in a fair competition. Such maximising (pursuing the perfect outcome) is not pragmatic. Instead, doctors make sense of options by reducing them to a smaller range they work with routinely.

Resistance to change

Doctors of course want better drugs, but they also have to manage the decision–making between old and new choices.

Occasionally new drugs do offer clear and definite improvements (typically when treatment becomes possible for the first time – the jump from nothing to something is the clearest). But often new drugs offer more close choices, and this is when we see the influence of status quo bias.

Not only do doctors go with existing and known choices, but they also offer reasons for doing so.

Here are some of the key barriers to change, and arguments doctors give to defend the status quo…

Change takes effort –
"We don't have time for this change"

Change involves risks –
"The risk of change is too high until we know more"

Change involves loss –
"We serve patients really well with existing drugs and don't want to lose that"

Change needs a team effort –
"This is a change for people higher up in the food chain than me in university hospitals"

It's important that we listen for these effects, because without this filter the impression will often be of more willingness for change and a higher claimed level of behaviour change.

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The problem of post-rationalisation and consistency bias

Doctors, of course, can always offer reasons for their choices. We might think this represents a careful consideration of all the drivers towards the decision.

Driver and barriers studies are ubiquitous. However, doctors typically reveal very few (if any) drivers.

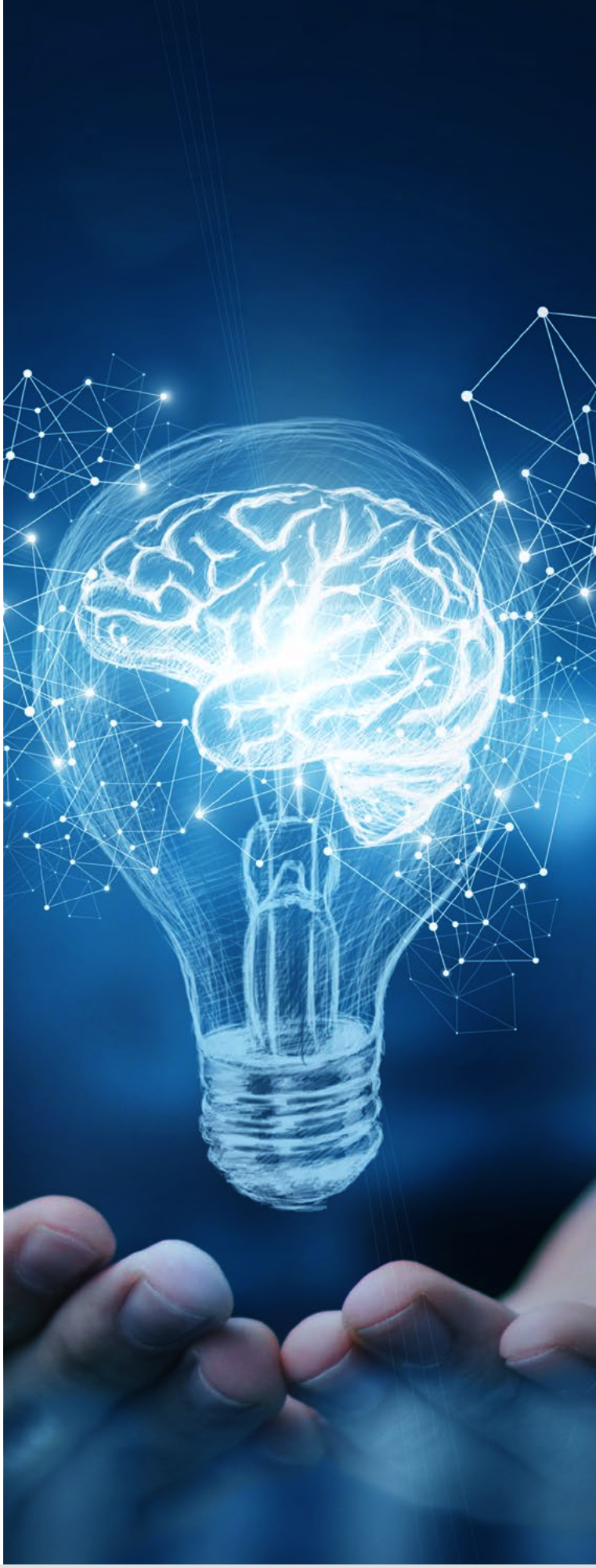
What they tend to do is make a decision based on one driver they believe in and then arrange other evidence to support this. This is called 'consistency bias'.

For example, having decided a drug's efficacy improvement makes it a good choice, a doctor then explains that the treatment burden is justified, the cost necessary, the patient easy to identify, the side-effects manageable and so on.

If, however, a doctor decides against a drug, they will explain that there are too many visits to the hospital, it is too expensive, it is unclear who to use it on and that the side effects are too risky and too hard to mitigate, and so on.

The challenge is to learn to discern when they are merely aligning their views and when they are revealing real drivers. This is a subtle and nuanced task achieved by careful listening and diligent analysis. A knowledge of the biases and heuristics at play here is essential to acquiring those skills.

In summary, we've shared how experts show bias and how the number, closeness and clarity around choices makes a marked difference. We also need to consider resistance to change and problems around post-rationalisation. Contact us to see how we apply our knowledge of biases and heuristics to get to the crux of real drivers.



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