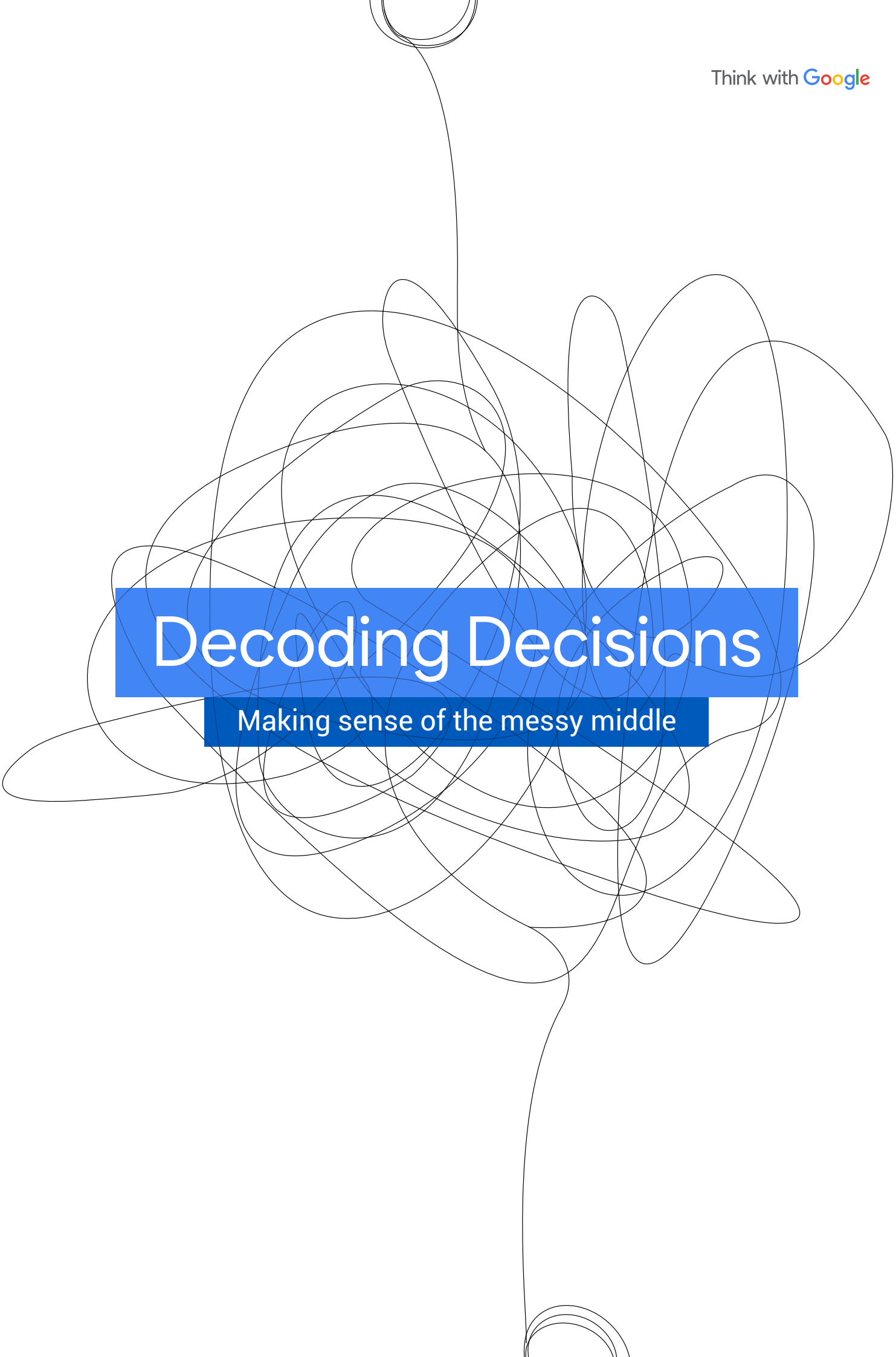
Think with Google



Decoding Decisions

Making sense of the messy middle

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Contents

1 Introducing the messy middle

Taking a walk down internet street

Let's take a walk down internet street. You might know it, and since the coronavirus pandemic you might have spent more time there than usual. It's open 24 hours a day, seven days a week. It's probably the biggest shopping district you've ever seen, but somehow you can get to any part of it you want in the time it takes to blink.

Whenever you're ready, you can tell someone what you're looking for and, in addition to the brands that are already in your mind, you'll immediately be shown every possible option and variation.

Every shop that sells that item is somehow just a step away, whether it's a huge department store or a tiny boutique. And the shops you don't need will magically disappear from view until you want to see them again.

Maybe you don't know what you want. If that's the case, there are places you can go that will show you every product available in every store. They'll let you rank and compare them in every imaginable way, sorting and filtering until you see something you like.

And if you still can't decide, you can ask a friend for advice. Or an expert. Or a famous celebrity. They're all here too, some of them hanging out at their own places, while others will come and meet you at the store. In fact, there are millions upon millions of people here, most of whom are only too happy to talk to you about the things they decided to buy, and how that experience turned out.

There's a lot happening here on internet street. Because it's all so easy, you might wind up making several visits before you get around to actually buying anything, moving in and out of multiple stores, going back for a second and then a third look, making full use of everything internet street has to offer.

That's the reality of shopping on the internet today, but it hasn't always been like this. Before the internet, we shopped on a physical street, where we had less choice and less information. What we ended up buying was restricted by availability and proximity, and we relied on brands to reassure us that we were making the right decisions. We even had to carry our own shopping baskets.

Our behaviour has fundamentally changed, but for the most part we revel in it, as instincts formed by thousands of years of scarcity are supercharged with a sudden wealth of options and opportunity. So much choice, so many shops to visit and products to view. So much complexity that we've turned to a range of coping mechanisms – mental shortcuts and techniques that help us cut through to what matters.

Marketing has also evolved and developed new ways of cutting through. Marketers have embraced new platforms, new technology, new data, and new formats. And lately, innovations like machine learning and artificial intelligence are pushing all of this further and faster into the future.

Most of these developments have been good things. The expansive reach of digital marketing has allowed new businesses to emerge and grow. But while this is ultimately a report about marketing, it is not a report about that side of the equation.

Instincts formed by thousands of years of scarcity are supercharged with a sudden wealth of options and opportunity.

Instead, this report is about the mental processes that have been activated by the abundance of the web. It's about how consumers deal with scale and complexity using cognitive biases encoded deep in our pre-digital history.

If behaviour has evolved, as we believe it has, then it is crucial that marketers understand how consumer decision-making has changed so that they can continue to uncover new growth opportunities and defend existing brand share.

What does the consumer journey look like?

This is among the questions most frequently asked of Google's insights team. There are a couple of variations involving phrases like "purchase funnel" and "path to purchase" but, for the most part, they're all asking the same thing. There's a lot of value in questions like these, but we've come to realise that there is another aspect of what shoppers are doing that needs to be considered. The other question we need to answer is this: how do consumers decide what they want to buy and who they want to buy it from?

It isn't surprising that businesses are keen to outsource this question. It's probably the most important in all of advertising, but also the hardest to answer. Often, research in this area will focus on the journey, resulting in a list of touchpoints that people hit along the path to purchase. But while such lists offer valuable insight into the places people go during their online journey, they can't address the equally important question of why a shopper ended up making the decision they did.

We know more about advertising performance than ever before, and can measure outcomes with amazing granularity. And yet, understanding consumer decision-making is more difficult than it's ever been. In 2020, following the outbreak of coronavirus and subsequent restrictions on physical retail, the proportion of purchases happening online has risen to record levels. And while the majority of purchases are still made offline, the media and information that inform those purchases are increasingly online, and the complexity of potential decision-making pathways has grown considerably. If we don't update our thinking about consumer behaviour to account for this huge expansion in choice and attendant complexity, we'll be trying to account for 21st century behaviour with 20th century models.

1 ONS Retail Sales Index time series (DRSI), UK, May. 2020

Charting undiscovered territory

So, over the course of the past two years, our team has embarked on a multi-pronged project with the goal of trying to understand how consumers on internet street interpret and manage increased information and choice while buying online and offline. This research has led us to identify a specific territory within the labyrinth of searches, ads, links, and clicks involved in making a purchase. We call it the "messy middle", a space of abundant information and unlimited choice that shoppers have learned to manage using a range of cognitive shortcuts.[2] Successfully learning how to navigate its switchbacks, hairpin bends, and dead ends is going to be as crucial to future marketing success as any investment in technology or platforms.

> The 'messy middle', a space of abundant information and unlimited choice that shoppers have learned to manage using a range of cognitive shortcuts.

Once we discovered this territory, we set out to map it. In doing so, we devised an updated model for how we believe people behave in this sphere of abundance and uncertainty.

With the help of behavioural science expert The Behavioural Architects, we recruited people to complete shopping tasks, captured their behaviour, and listened in real time as they told us what they were thinking and doing, and why they were doing it. As we watched, we began to notice how seamlessly consumers switch between complementary states of "exploration" and "evaluation". We then applied behavioural science to help us cut through the participants' explanations and post-rationalisation to understand the underlying cognitive processes at work.

2 We shared an early draft of the project with the well-known advertising strategist Vicki Holgate, and she played it back to us as "a kind of *messy-middle*". We tried various titles and names for presentations, but this was the phrase that stuck.

Unsurprisingly, it turns out that faced with all this complexity, people try to keep things simple – an effort that in itself turns out to be quite complex.

To validate the existence of the exploratory and evaluative states, we also looked through Google's historic search data for clues. In several cases, we found examples of changes in the way people search over time that illustrate how these behaviours manifest in the real world.

Alongside this, we also undertook a thorough literature review to try and isolate the specific cognitive processes at work while people are caught up in the exploratory and evaluative whirl. We identified six of the most critical biases, and then devised a large-scale experiment to test the effectiveness of these shortcuts and heuristics in guiding shoppers out of the messy middle and towards purchase.

Over the following chapters, we'll explain why we started looking for the messy middle, the tools we used to identify and codify it, and the discoveries we made while exploring it. We'll share some of the most surprising insights from the process, including:

- The power of showing up – how simply being present in moments of deliberation can be enough to win or retain consumer preference.
- Several of the most powerful behavioural biases we investigated can be easily addressed by marketers surfacing and modifying existing assets.
- Why addressing some of the most powerful behavioural biases requires cross-functional cooperation from marketing, user experience, product development, and finance.

Finally, we'll wrap up with specific ideas for how marketers from both established and challenger brands can adapt to this rich and complex space.

Marketing in the messy middle

Access to media and information has led to the growth of important influences that don't necessarily fit into traditional brand marketing or performance marketing buckets. This has some big implications for marketers from brands both large and small. If you don't truly understand why consumers make the purchase decisions that they do, you may not achieve the full return on your brand investments, and could find yourself vulnerable to nimble competitors.

It seems then that "messy middle" might also be a good way to describe how marketing has evolved over the past decade or two, with the polarisation between branding and direct response creating a gap into which all sorts of valuable consumer behaviour goes unrecognised and underserved. Getting comfortable with the messy middle could ultimately help bridge organisational divides that our research suggests mean more to marketing departments than they do to consumers.

Of course, figuring out what consumers think and how they behave is not a new idea. It's an aspiration that's always been at the very heart of marketing. But, as we're about to find out, the context within which marketers are trying to achieve this goal has changed dramatically.

Getting comfortable with the messy middle could ultimately help bridge organisational divides that our research suggests mean more to marketing departments than they do to consumers.

2 Identifying the messy middle

Cheap, or best?

The research project behind this report began with a hunch that there was more to say about the evolution of choice, information, and decision-making on the internet. The next step was to look for clues to support and expand our initial hypothesis.

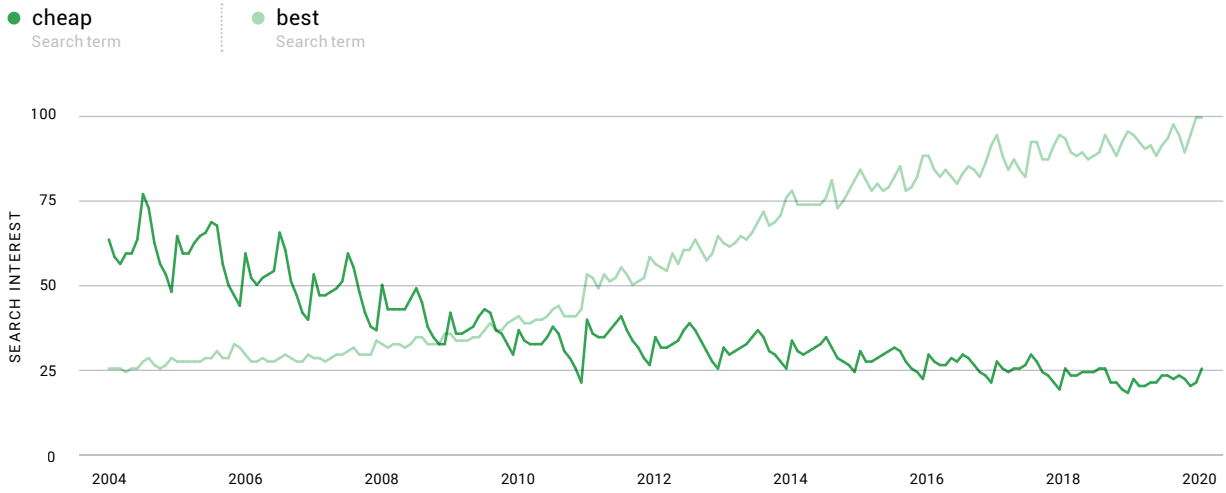
To kick off the investigation, we turned to one of our biggest resources as researchers at Google: our search trends data. Google sees billions of searches every day, and 15% of those queries are ones we haven't seen before.[3] Our freely accessible search query exploration tool, Google Trends, represents a detailed history of how our curiosity and thirst for knowledge has evolved throughout the digital age. Using Google Trends data you can chart the fortunes of celebrities, politicians, and reality TV stars, observe the rise and fall of a decade's worth of memes and fads, and watch the iPhone and Android create and define a category.

But the names of people and objects aren't the only data points in our Google Trends dataset. When consumers search, they often modify the query with one or more adjectives or other descriptors. You aren't just looking for any laptop, but for the *right* laptop – however you define it. We call these additional words modifiers, and they describe what the user wants to know about the thing they are searching for, or add precision to their search. Modifiers provide a cognitive and emotional snapshot, allowing researchers to see how our feelings and needs have evolved through the lens of the things we all search for.

3 Source: https://www.blog.google/products/search/search-language-understanding-bert/

Turning to our trends data, we immediately began to find some tantalising clues. Take the terms "cheap" and "best". In the UK, interest in search queries containing the word "cheap" has steadily declined over the past 15 years, while interest in "best" has increased with an impressive degree of negative correlation (figure 1).

Figure 1



The trends for UK searches containing "cheap" and "best" have been in opposite directions.

This data suggests that at some point around 2009, consumer interest in finding the cheapest item online was eclipsed by a desire to find the best. One hypothesis to explain this might be that as average incomes increase over time, an appetite for signifiers of wealth, such as having the "best", might increase too. However, when these two trends crossed over in 2009, the world was in the grip of the worst financial crisis since the Wall Street Crash – following which median household incomes in the UK actually fell.[4]

Looking more closely at "cheap" and "best", it quickly becomes apparent that these two modifiers are very different in scope and application. "Cheap" is quantifiable and rational, "best" is more subjective and emotional. The precise value of "cheap" may vary between individuals, but it still carries a singular meaning. "Best", on the other hand, can have a wide range of meanings, being applicable to value, quality, performance, popularity, and more.

4 UK Office for National Statistics – Living Costs and Food Survey
Data source: Google Trends, United Kingdom, 1st January 2004 - 1st January 2020, All categories, Web Search

It is this transition from simple to complex modifiers that offers the first significant clue to how consumer behaviour and decision-making have changed. As the internet has grown, it has transformed from a tool for comparing prices to a tool for comparing everything.

Enter behavioural science

To go beyond describing *what* consumers are doing on the internet to understanding *why* that behaviour has changed, we needed to take a different approach, grounded in cognitive science. Our partner from the beginning of this project has been The Behavioural Architects, a global consultancy specialising in the application of behavioural science to marketing challenges.

We're certainly not claiming to be the first to apply behavioural science to marketing. Influential marketers have long emphasised the importance of using mental shortcuts to build brand salience and create messages that generate a response, so the use of behavioural insights will not be a new concept for advanced practitioners. However, with the help of The Behavioural Architects we've been able to comprehensively review a significant proportion of the available scientific and marketing-related literature, and to use it as the foundation of a series of large-scale experiments exploring the impact of behavioural biases that we'll review in Chapter Four.

As the internet has grown, it has transformed from a tool for comparing prices to a tool for comparing everything.

Riders and elephants

There's a famous analogy used to describe how reason and emotion interact when we're making decisions. Jonathan Haidt, psychologist and Professor of Ethical Leadership at New York University, likens the relationship to that between an elephant and its rider. The rider is notionally in charge of where the pair are going, but as soon as some stimulus or other catches the elephant's attention, the rider quickly finds out how little control they really have. The signal of the reins is soon drowned out by the noise of a trumpeting giant charging towards the fulfilment of one of its primal needs.

Inevitably, the elephant's motives are something of a mystery to the rider. If you ask them to explain what happened, they'll be able to tell you where they wanted to go, but not why they ended up where they did. Answers about the elephant will be mostly guesswork and post-rationalisation. The mechanism that often causes emotion to overhaul reason remains hidden to us.

Many attempts have been made over the years to isolate the signals and cues most likely to make the elephant take control and, in a sense, the project we embarked upon had a similar goal. After all, anywhere that has recently been visited by an elephant tends to end up a little messy.

The mechanism that often causes emotion to overhaul reason remains hidden to us.

A brief history of the evolution of marketing models

One of the ways that marketers have tried to describe (and to some extent prescribe) the paths elephant and rider take towards purchase is to map them in marketing models.

To give us some historical context, The Behavioural Architects kicked things off with an extensive investigation of marketing model white papers, starting with Elmo Lewis' famous AIDA, and covering several of the influential models that have emerged over the intervening century and a bit.

1898

1. AIDA

Elmo Lewis' theoretical customer journey from the moment a brand or product attracts consumer attention to the point of action or purchase.

1924

2. The Funnel

William Townsend's adaptation of AIDA. Introduced the funnel concept.

1961

3. DAGMAR

Not intended as a decision-making model, but Russell Colley adds an important pre-awareness stage to the funnel.

1986

4. Moment of Truth

Jan Carlzon's model, captured in his claim that: "Any time a customer comes into contact with a business, however remote, they have an opportunity to form an impression".

1997

5. ATR-N

Ehrenberg's model emphasises the importance of post-purchase experience and interaction (nudges).

2005

6. First and Second Moments of Truth

A.G. Lafley builds on Carlzon's moment of truth, distinguishing between looking at the product and then using it with the first and second moments of truth.

2009

7. The McKinsey consumer decision journey

McKinsey's "active evaluation" stage updates decision-making to reflect a less linear, active process and introduces the "loyalty loop".

2011

8. ZMOT

Google extends Carlzon's and Lafley's moments of truth with the "zero moment of truth" - when you start to learn about a product or service for the first time.

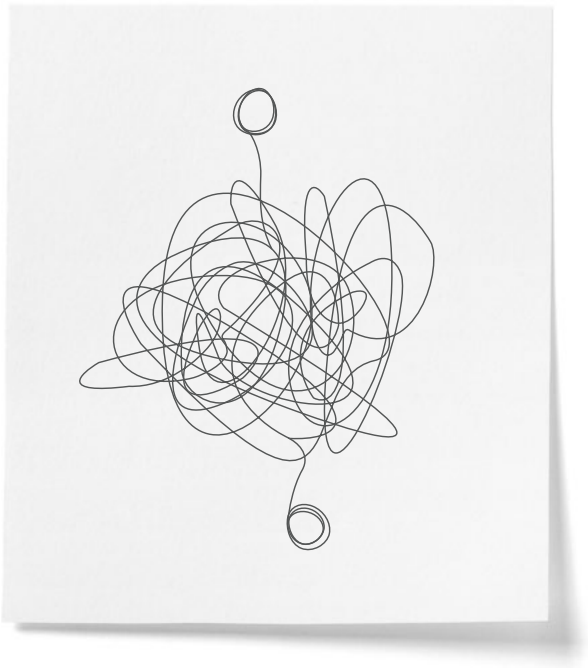
The Behavioural Architects eventually proposed the above list as representative of the way thinking in this space has evolved. It isn't exhaustive – we chose not to include any model that seemed more focused on organisational concerns than consumer perspectives – but what this list does show is a general direction of travel and a tendency towards increasing detail.

Observed shopping behaviour

Google started out as a postgraduate research project, so we have a healthy respect for the perspectives of academics and experts. However, our ultimate source of truth is always the consumer, and we knew we wanted to find a way to get back to their perspective.

Our method for doing this was to observe several hundred hours of shopping tasks, covering 310 different journeys across 31 categories. In these tasks, shoppers were asked to research a product for which they were currently in-market. Journeys were recorded using screen capture audio and video, while the shoppers talked us through what they were doing. The Behavioural Architects then analysed the journeys through the lens of behavioural science, annotating the video playback with the different cognitive biases they observed.

After watching the recordings, we made an initial attempt at describing what we'd seen. On a Post-It Note we drew the purchase trigger at the top and the purchase itself at the bottom, and in the middle we drew this (below).



In between those two points there is a winding, scrawled squiggle, which seemed a reasonable way to represent our first significant discovery: there are no typical journeys. Instead there is a confusing web of touchpoints that we likened to spaghetti, not least because it was clear that this would be a real mess to clean up.

The different sites and touchpoints visited by the shoppers who took part in the shopping observations included, but weren't limited to, the items listed in figure 2.

Figure 2

Shopping touchpoints observed

search engines, review sites, video sharing sites, portals, social media, comparison sites, forums, interest groups / clubs, retailer sites, aggregators, blogging sites, voucher / coupon sites, branded sites, publishers, noticeboards

Having arrived at these sites, of which there are multiple to choose from, many of the shoppers spent significant amounts of time navigating back and forth, switching between sites across multiple browser tabs and apps. In fact, in some of the sessions we observed, the product under consideration actually changed mid-search, as a new option became preferred.

Exploring and evaluating

Taken together, the literature reviews and observed shopping tasks started to reveal some of the core characteristics of the new reality of consumer decision-making.

We began the first chapter as shoppers browsing an infinite high street, moving effortlessly between vendors until something catches our eye. If we like what we see on closer inspection, we can check out immediately, but if not it hardly matters – there are plenty of other stores to visit on internet street.

This sequence of looking for products and then weighing options equates to two different mental modes: exploration and evaluation. And, as it turns out, they are the key to understanding the messy middle. Exploration is an expansive activity, while evaluation is inherently reductive. When exploring, we add brands, products, and category information to mental portfolios or "consideration sets". When evaluating, we narrow down those options.

In McKinsey's consumer decision-making model[5] (one of our favourite recent models), these modes are combined into a single "active evaluation" phase. However, our research suggests that they are cognitively distinct with different reward systems and, as such, different tactics are required to connect with consumers depending on whether they are exploring or evaluating.

The difference between giving a consumer information about a category or product and actively closing a sale is subtle but important. In any transaction choice is power, and consumers are now more powerful than ever before. Sending the wrong signal at the wrong moment could be highly disruptive, with the result that the offending brand is jettisoned from the shopper's consideration set.

The science behind explore and evaluate

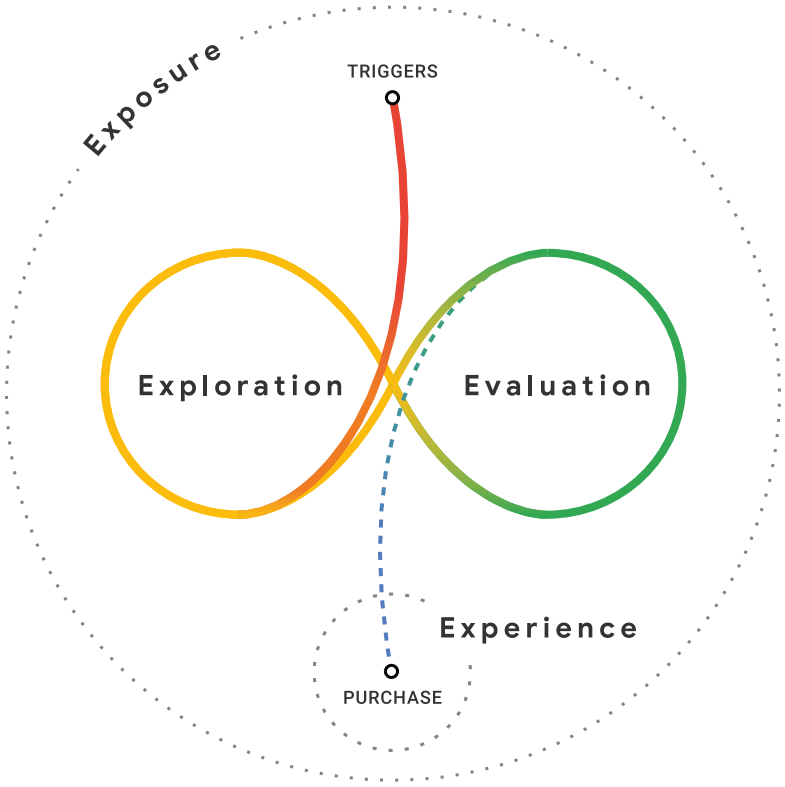
Next we wanted to validate that explore and evaluate fit within the existing body of behavioural science. So, we went back to our stack of books and periodicals to see if anyone else had identified a similar pattern of behaviour.

One theory that closely matched our hypothesis is "information foraging",[6] which describes behaviours humans exhibit to reduce energy expenditure whilst maximising gain. Historically, this theory was derived from a food foraging theory which helped biologists understand animals' feeding strategies – in the case of a predator: how much energy is required to hunt prey versus the energy that will be gained from eating it? Applying these theories to online behaviour could explain how we explore and evaluate: how easy is it to find the information we need and how useful will that information be? If it's useful, we tend to exhaust the information at that location before proceeding to the next. If not, we rapidly switch sources before we expend too much energy.

5 McKinsey (2009), https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-consumer-decision-journey#
6 Pirolli, P., & Card, S. (1999). Information foraging. Psychological Review, 106(4), 643–675. https://doi.org/10.1037/0033-295X.106.4.643

Show... me... the... model!

We didn't set out to build a new marketing model, but after sifting through hundreds of white papers and spending as many hours observing online shopping journeys, we realised that only a new structure would allow us to piece together everything we'd learned.



Between the twin poles of trigger and purchase sits the messy middle.

If you recognise a few of the marketing models mentioned earlier, there's a chance that our model will feel familiar, sharing common elements with the McKinsey model and others. This is intentional – our brief history shows how each generation builds on the models that came before, stretching all the way back to AIDA. However, we do believe that we've identified several novel elements that reflect nuances of decision-making that previous models don't fully capture.

In our model, between the twin poles of trigger and purchase, sits the messy middle, in which consumers loop between exploring and evaluating the options available to them until they are ready to purchase. This process takes place against an ever-present backdrop of exposure – effectively a substrate representing all of the thoughts, feelings, and perceptions the shopper has about the categories, brands, products, and retailers. After purchase comes experience with both brand and product, all of which feeds back into the sum total of exposure.

That's the simple version – over the rest of this chapter we'll look at each component of the model in more detail.

E is for...

Alliteration is a good aide-memoire and, in a happy coincidence, all of the novel components in our model beyond trigger and purchase begin with the same letter.

Exposure

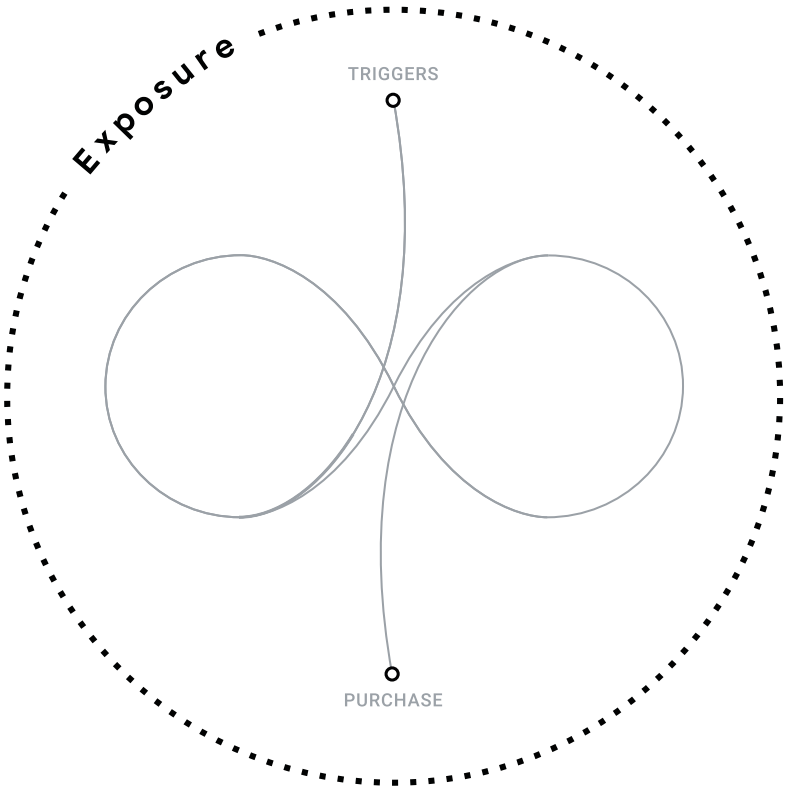
Describing the effect of brand advertising in a marketing model is tricky. Brands can inspire powerful emotional responses and, as Binet and Field have shown,[7] their impact can be felt throughout the decision-making process. Moreover, their power doesn't only derive from advertising. Brands have a presence beyond marketing: our associations with them may be life-long in some cases and everything we know about them, from a newspaper article to a conversation overheard on the street, can influence our perceptions.

7 Binet, L., & Field, P. (2013). *The Long and the Short of It: Balancing Short and Long-Term Marketing Strategies*. IPA

To capture this broad spectrum of interaction and influence, we propose "exposure". Exposure is your awareness of the brands and products in a category. Exposure is the sum total of all the advertising emanating from a category that you've seen or heard. It's the things you've learned through word of mouth, the things you've read in the press and online. It can be passively assimilated prior to a purchase trigger, part of the trigger itself, actively sought or experienced post-trigger, and it can be a deciding factor in the final purchase.

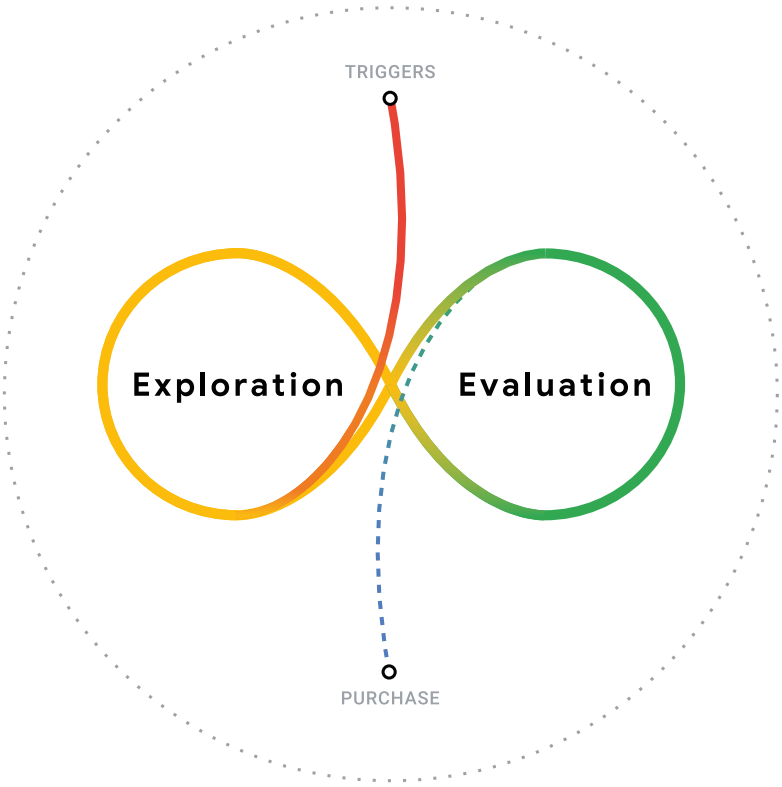
But crucially, exposure is not a stage, or a phase, or a step. It's an always-on, constantly changing backdrop that remains present throughout the duration of the decision-making process.

And it's not just made up of branding and brand perceptions. Broader category exposure and related category exposure are also components of the backdrop. This too is a vast territory, but these types of exposure are often complicit in triggering a purchase.



The exploration and evaluation loop

This seemingly infinite construct is the defining characteristic of the messy middle (the design we've chosen for the loop isn't an accident). Consumers explore their options and expand their knowledge and consideration sets, then – either sequentially or simultaneously – they evaluate the options and narrow down their choices. For certain categories, only a brief time might be required moving between these modes, while habitual and impulse purchases may bypass the loop altogether. But other purchases, typically more complex, encourage or even oblige us to engage in lengthy exploration, generating a healthy number of options to evaluate.



The loop is our best attempt at describing the non-linear nature of the messy middle, with its back and forth between destination sites and mental modes until one lucky brand emerges victorious. For marketers the challenge is simple: how do you ensure that when the shopper stops flip-flopping between states, it's your product or service that wins? In other words, how do you persuade someone to stop shopping around and actually buy what you're selling?

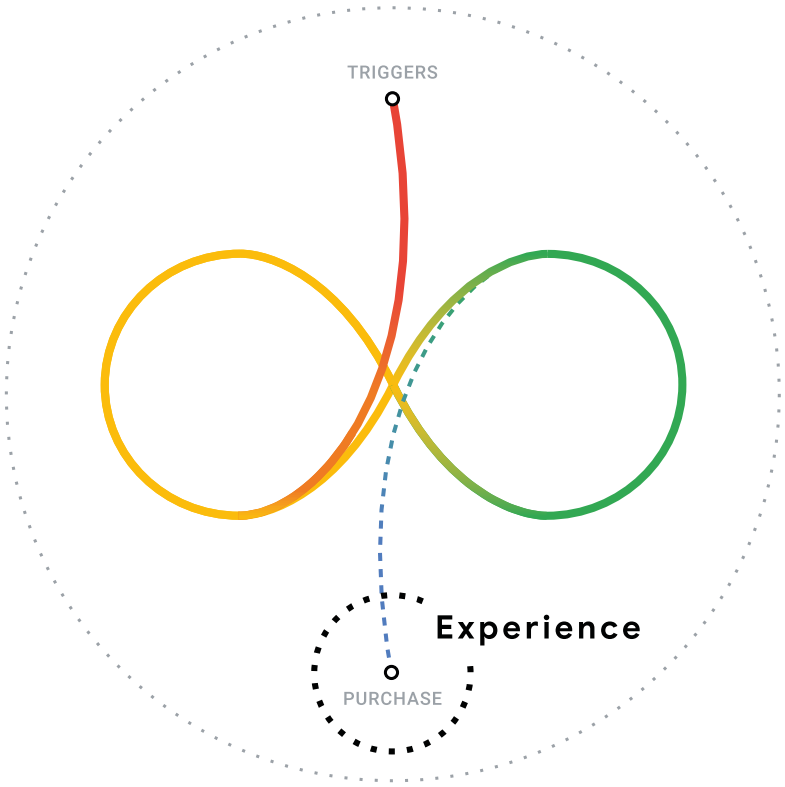
But while the endless circulation of the exploration/evaluation loop might frustrate advertisers, it's important to remember that it often delights consumers. The goal is not to stymie the customer or force them out of the activity they have chosen to pursue, but to provide them with everything they need to feel comfortable making a decision.

Consumers explore their options and expand their knowledge and consideration sets, then – either sequentially or simultaneously – they evaluate the options and narrow down their choices.

Experience

This last component of our model occurs outside of the messy middle, so we'll only touch on it briefly. The experience a customer has with the product or service they've purchased feeds directly into their background exposure. A brand that provides a good experience has a head start here, and a brand that delivers an amazing experience might even become a trigger itself, potentially increasing the frequency of purchases.

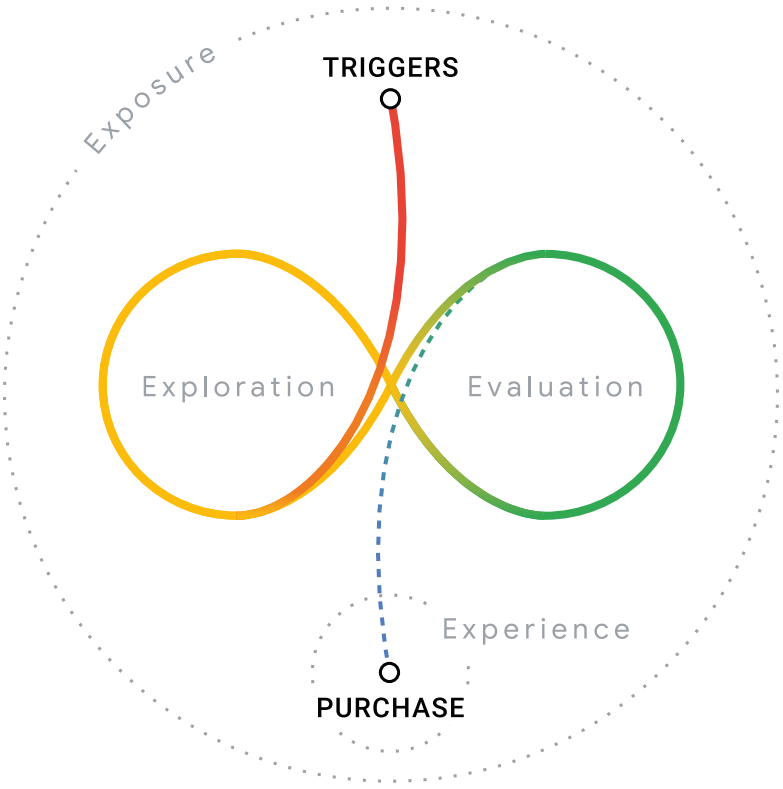
But with so much choice available in the messy middle, a brand that delivers a poor experience will probably have to work extremely hard to do business with that customer again. If it's a complete disaster, that experience might push that customer out of the category entirely, and risks their dissatisfaction being discoverable to other potential customers in the form of negative reviews or comments on social media.



Triggers and purchase

It might seem odd to cover these critical points in our model as an afterthought, but as they strictly occur beyond the boundaries of the messy middle, our research doesn't touch on them directly.

Suffice to say that triggers are responsible for moving consumers from a passive state into an active purchase state. We've made them plural in our model to account for the fact that it is often not just one inciting factor that prompts the desire to purchase. In many cases an interconnected set of internal and external factors – feelings and memories, ads, and reminders – are responsible for triggering an active purchase state.



Model FAQs

Q: What exactly is the purpose of the model?

A: It labels the specific cognitive inputs and mental modes that consumers engage when processing vast amounts of information and managing choice. It also illustrates the relationship between those inputs and modes. In short, it helps to make sense of what's going on in the messy middle.

Q: How is this model new?

A: Given that it brings together various elements of previous models and theories, it isn't entirely new. But it does effectively illustrate the non-linear reality of decision-making – such as the constant backdrop of exposure and the infinitely looping relationship between explore and evaluate.

Q: Do the older models still have value?

A: Not all models are built with the same purpose in mind. We wanted to focus specifically on delineating consumer behaviour, while other models give greater focus to branding, loyalty, and the role of habit and impulse.

Q: Is the funnel dead?

A: Our model is designed to reflect the complex way that people make decisions. As such, it is tightly focused on the consumer, rather than on marketing or sales processes. As a tool for formulating marketing objectives, the funnel is still very much alive. In fact, at 120 years old and counting, the funnel is quite possibly immortal.

The messy middle identified

In this chapter, we've gone from a vague hunch to an updated model of consumer decision-making, via some intriguing hints from Google Trends and a long reading list of behavioural science. In the next, we're going to find out what else search data can tell us about the evolution of behaviour on the internet.

3 Investigating the messy middle

Searching for clues in Google Trends

With a hypothesis now in place, our next step was to return to the Google Trends data to see if we could find real-world evidence of behaviour changing over time on the web.

At a high level, people use search to look for information about a particular subject or object. But because the amount of available information is so vast, searches are often modified with an additional word or phrase that describes what it is the searcher wants to know about the thing they're searching for. In our search data, fads, trends, and memes blip in and out of popularity, but the way people use search has slowly increased in range and complexity over time.

If you're looking for a laptop, you might prefer to narrow down your search by modifying it to "best laptop" or "cheap laptop", or even "laptops near me". The modifiers people use can't always be neatly broken down into exploration or evaluation, but if we trend the use of these sorts of terms, we can find clues that illuminate how behaviour has changed.

For those not familiar with Google Trends, here's a quick primer on how it works, and a few clarifying notes on what the charts used in this chapter represent.

Google Trends

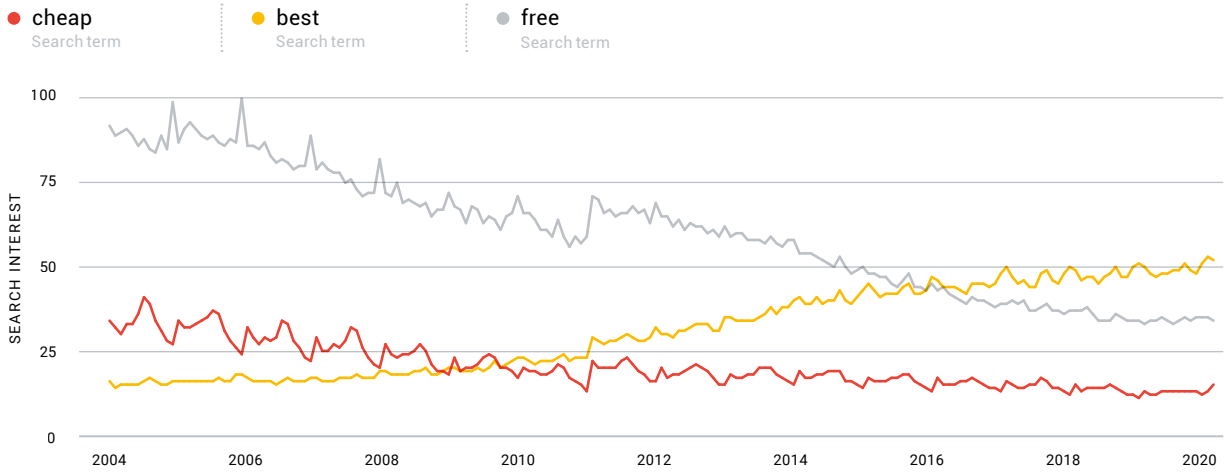
- All charts in this chapter have been generated in Google Trends and, because it is a publicly available tool, all the charts can be easily recreated.
- To make comparisons between terms easier, Google Trends normalises search data by time period, location, and topic. It therefore displays the relative popularity of a term over time, not absolute.
- Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term.
- Due to a change in the methodology of Google Trends on 1st January 2011, relating to improved geographical assignment, the majority of the charts we feature in this chapter begin on this date.
- By using double quotation marks around search terms, for example "gift ideas", the results include the exact phrase, possibly with words before or after, like "birthday gift ideas".
- Search Tips for Trends is a must-visit for anyone wanting to have a play around in Google Trends.

The way people use search has slowly increased in range and complexity over time.

Are you not entertained? The slow demise of 'free'

In the last chapter, we discussed the strange intersection of "best" and "cheap" in our search data. But these two modifiers weren't all we were searching for back then. For the first decade and a half of the new millennium, it seems that we were keen to get something for nothing. Even more than "best" and "cheap", in the 2000s "free" was king (figure 1).

Figure 1

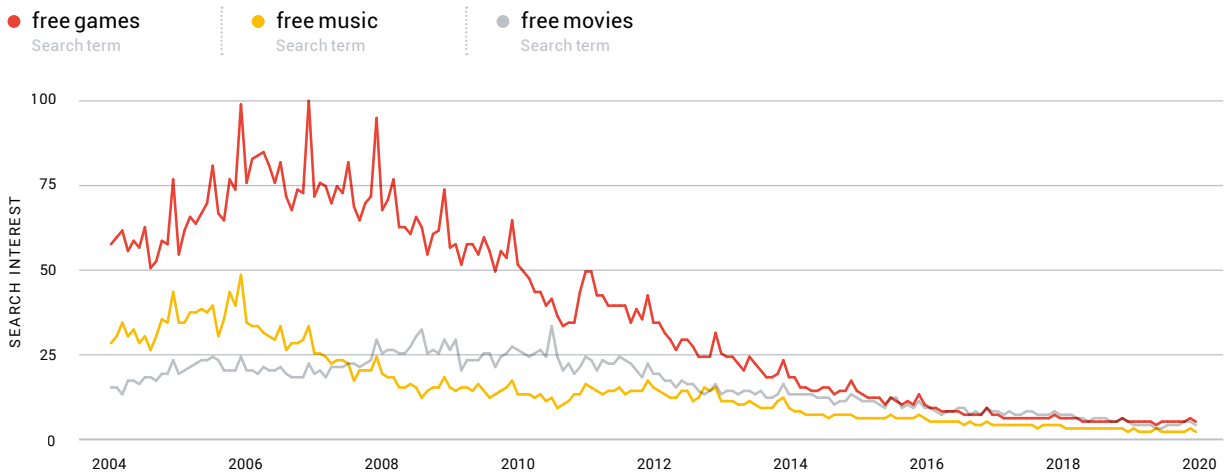


The proportion of UK searches containing "free" or "cheap" has been in decline, but the proportion containing "best" has been increasing.

Data source: Google Trends, United Kingdom, 1st January 2004–1st January 2020, All categories, Web Search

However, appearances can be deceiving. When we look at the kinds of queries that contain these modifiers, we begin to see some revealing patterns. In the 2000s we didn't search for free *everything*. For the most part, we wanted free entertainment: games, music, and movies (figure 2).

Figure 2



Declining UK search interest for entertainment queries containing "free".

As we fast forward through the past 16 years, the relative volume of entertainment searches containing "free" gradually diminishes and today, in 2020, the frequency of these expressions is far lower in relative terms.

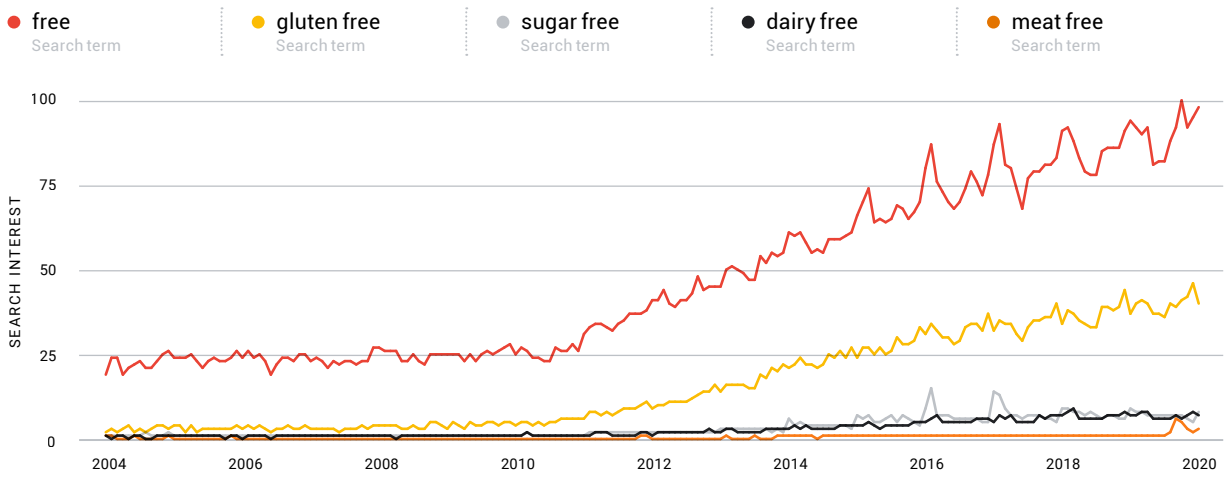
The demise of "free" is partly a story about our changing search behaviour but, of course, we can't forget that it's also a reflection of how new platforms and streaming services have changed the entertainment industry. In 2004 there was no YouTube (founded 2005), no Spotify (founded 2006), Netflix was still a DVD sales and rentals business (it didn't offer streaming until 2007), and there was no App Store (launched 2008).

Data source: Google Trends, United Kingdom, 1st January 2004–1st January 2020, All categories, Web Search

The lesson of ‘free’ – a warning to the curious

This isn't to say that "free" no longer features in searches today. It still represents significant volume, but the types of free things we are looking for have evolved, and the composition of search queries containing "free" helps us to understand that evolution. For example, if we limit our analysis to the food and drink category, we see that when people use the word "free" in a search they tend to be looking for items that are "free from" a specific ingredient or allergen (figure 3).

Figure 3



Rising UK search interest for the term "free" in the food and drink category.

The demise of "free" and the category-specific details that add nuance to that narrative, serve as a cautionary tale for the rest of this chapter. As we look at other search modifiers, in each case we have to bear in mind that the same word can have different meanings in different categories, countries, and languages.

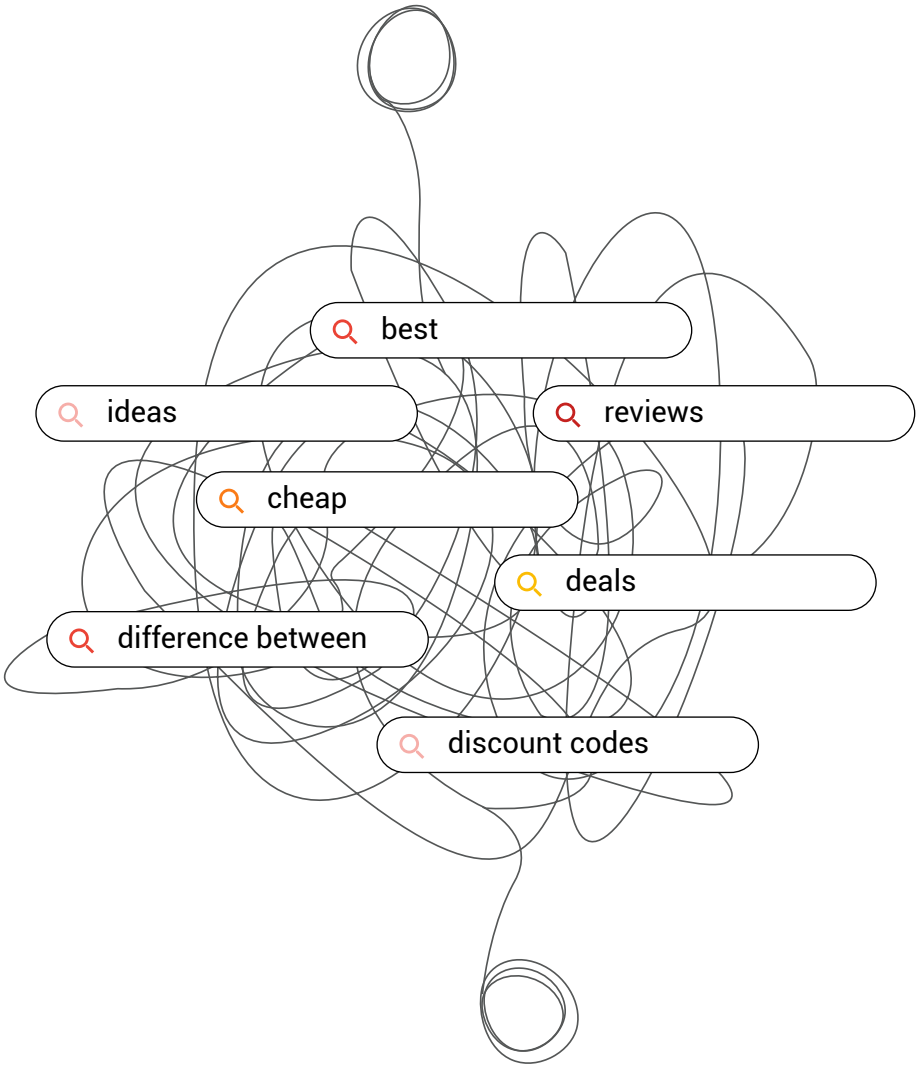
Data source: Google Trends, United Kingdom, 1st January 2004–1st January 2020, Food & Drink category, Web Search

OK Google, let's go shopping

Now let's take a look at modifiers and categories within a more commercial context.

We'll look at seven main search modifiers: "ideas", "best", "difference between", "cheap", "deals", "reviews", and "discount codes".

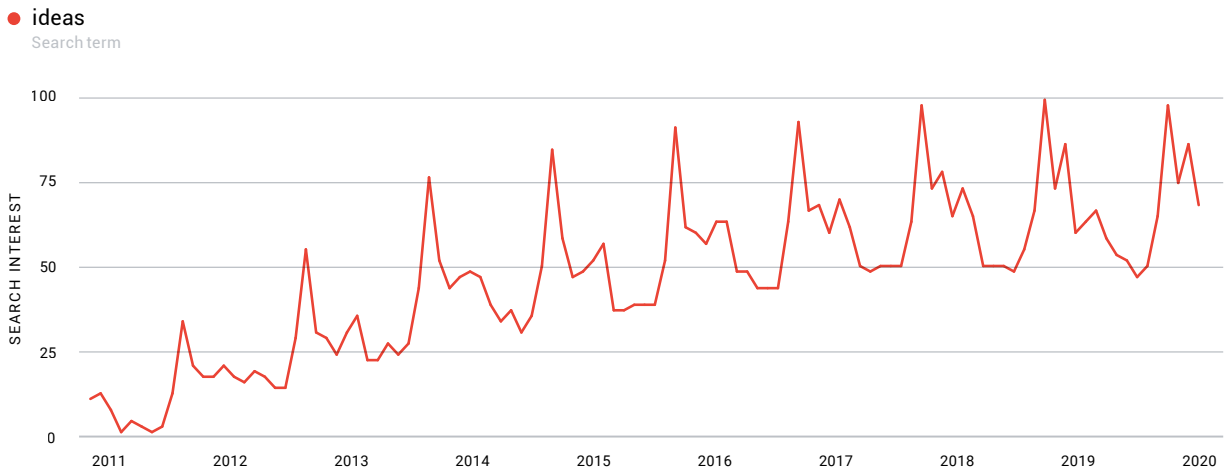
The order in which these seven modifiers are listed is intentional. While it might not be possible to strictly classify a search query as either exploratory or evaluative, we can at least hypothesise that some searches have a more expansive, information-gathering intention, and others are more reductive and clarifying.



OK Google, inspire me with ideas

We begin with the modifier "ideas", which has been gradually increasing its share of UK search over time (figure 4).

Figure 4



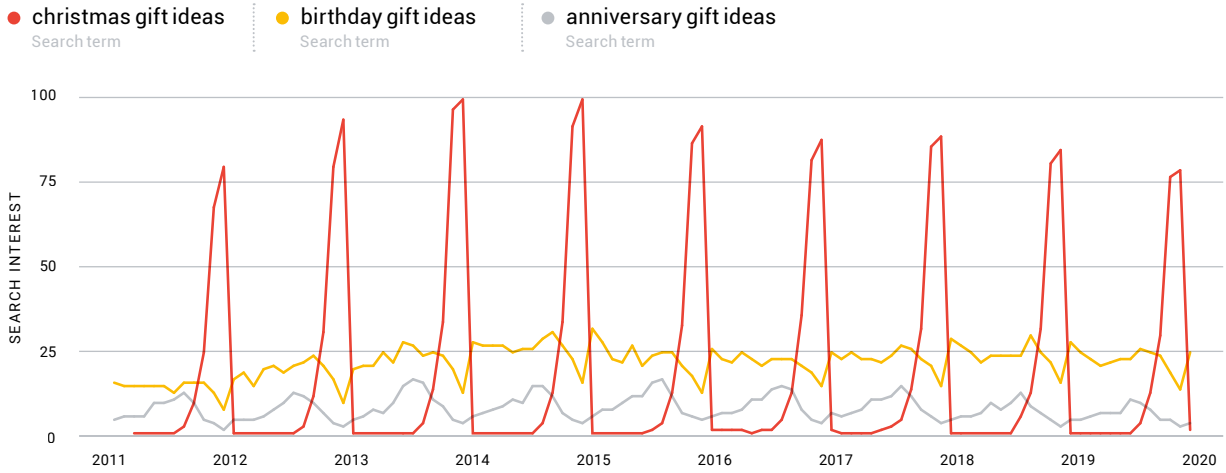
An upward trend in UK searches containing "ideas", spiking each year at Halloween.

"Ideas" is arguably the most expansive of the seven modifiers on our list. Located firmly within exploration territory, searchers employ this term when seeking new information, inspiration, and brands to add to their consideration sets.

Data source: Google Trends, United Kingdom, 1st January 2011–1st January 2020, All categories, Web Search

It is likely that searches containing "ideas" will often follow on quickly from one or more triggers, such as a pressing need to identify and buy a gift for somebody. While "Christmas gift ideas" is the largest phrase by volume, as seen in figure 5, we also turn to Google to help us with birthday gift ideas (a fairly flat pattern given birthdays occur all year round) and anniversary gift ideas (on close inspection peaking in May-September each year, aligned with the fact more couples in the UK marry in summer months than in winter).[8]

Figure 5

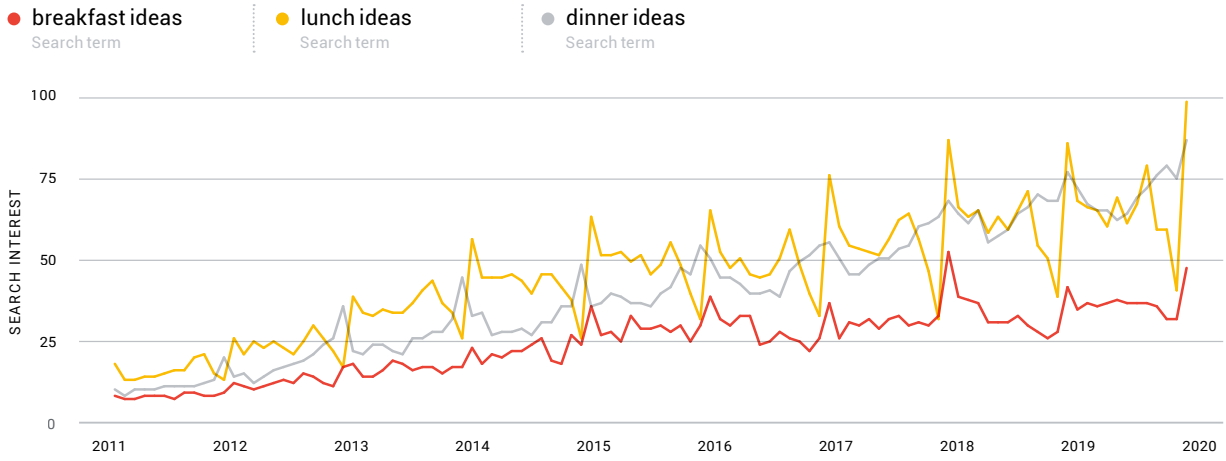


Popular UK search queries containing "gift ideas".

8 UK Office of National Statistics, https://www.ons.gov.uk/visualisations/dvc360/index.html
Data source: Google Trends, United Kingdom, 1st January 2011–1st January 2020, All categories, Web Search

We also increasingly turn to Google to give us ideas of what to rustle up for our next meal (figure 6).

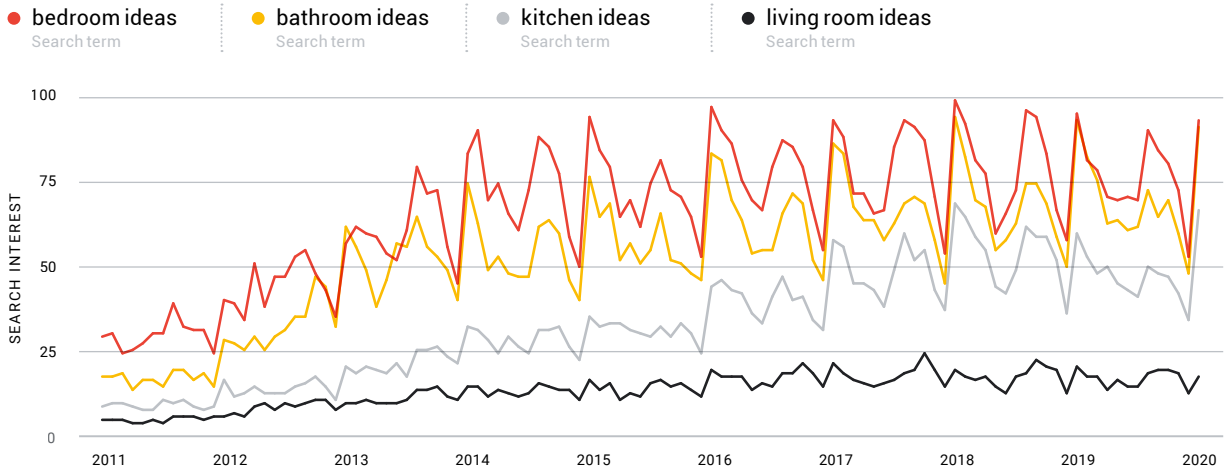
Figure 6



Rising mealtime "ideas" searches in the food and drink category in the UK.

When it comes to our homes, there isn't a room in the house where we're not seeking ideas, inspiration, and new additions (figure 7).

Figure 7



Rising popularity of "ideas" searches in the home and garden category in the UK.

Data source: Google Trends, United Kingdom, 1st January 2011–1st January 2020, Food & Drink category, Web Search
Data source: Google Trends, United Kingdom, 1st January 2011–1st January 2020, Home & Garden category, Web Search

An interesting feature of searches containing "ideas" is that, compared with other modifiers, the term they appear alongside is rarely the name of a brand or retailer. In 2019, less than 5% of UK searches for gift ideas, meal ideas, and room ideas also contained the name of a brand or retailer.[9] This supports the hypothesis that "ideas" searches are associated with an exploration mindset – people are adding information, products, and brands into their thinking, not evaluating between a shortlist of known products, brands, and retailers.

'Ideas' searches are associated with an exploration mindset.

OK Google, what's best?

Of all our seven modifiers, "best" has the widest footprint across categories. People use "best" as a modifier in searches for everything from ironing boards to insurance, from TV sets to travel destinations.

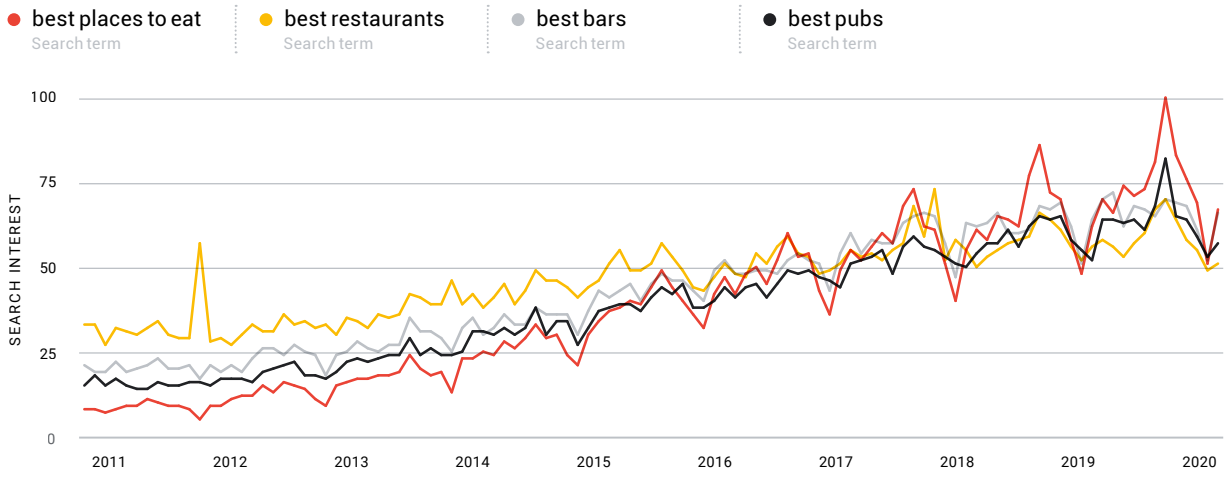
Since we've already spent some time thinking about "best" in earlier sections, we won't repeat those lessons here. However, there's one further insight worth bearing in mind: it can be challenging to definitively label "best" as a signifier of exploration or evaluation. At first we might assume it to be strictly evaluative – after all, to ask what's "best" implies a side-by-side comparison. But on closer inspection, it turns out that "best" is also being used to explore categories in conjunction with more generic search terms.

People use 'best' as a modifier in searches for everything from ironing boards to insurance, from TV sets to travel destinations.

9 Google internal data, UK, 2019

For example, when we look at overall searches for the "best" restaurants and places to eat, as well as the best bars and pubs, we can see that these are all consistently growing over time (figure 8).

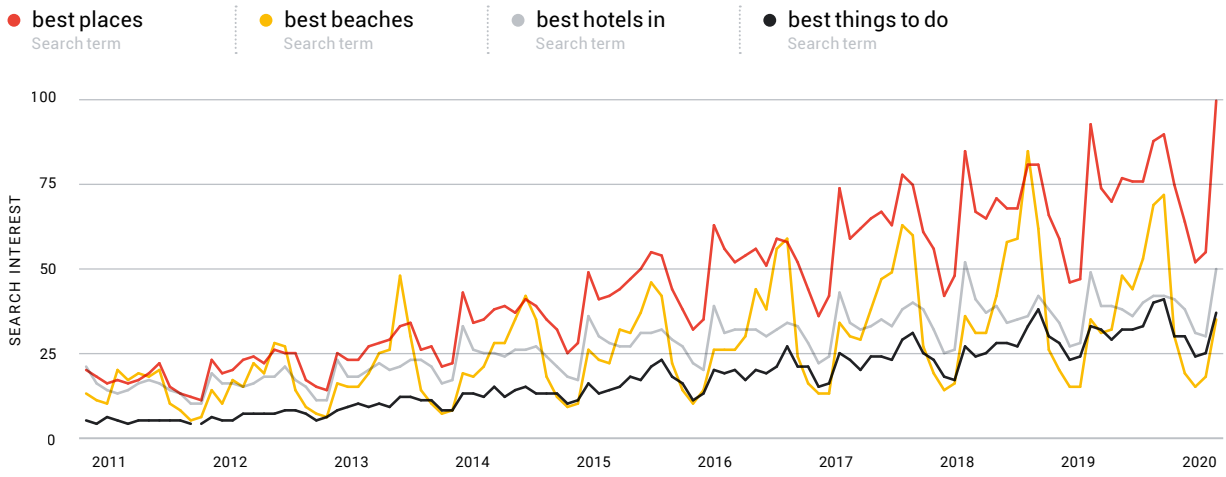
Figure 8



Rising UK search interest in the "best" places to eat and drink.

And in the example from the travel and tourism category, all of these "best" searches are recognisably exploratory in nature (figure 9).

Figure 9



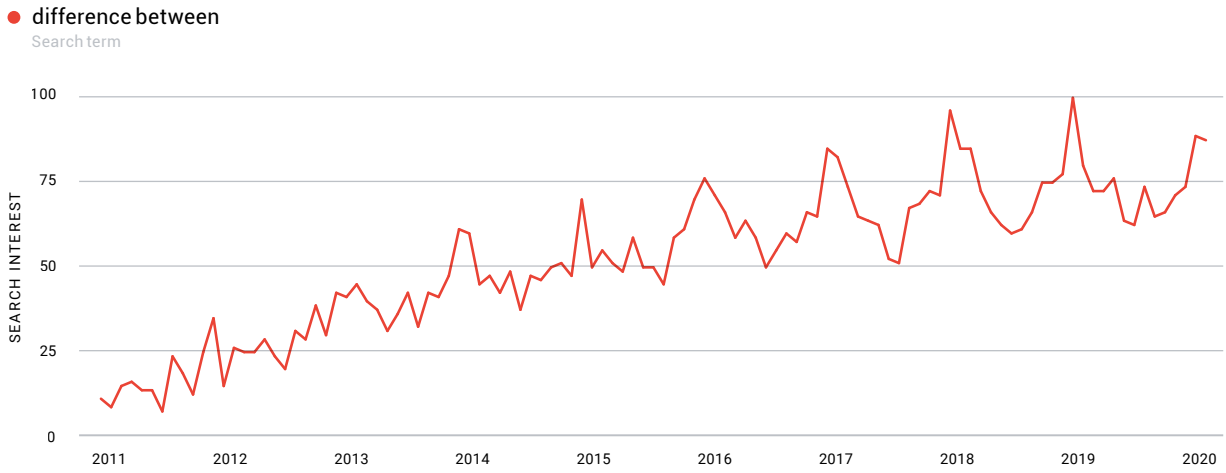
Rising UK search interest in the travel category for the "best" places to visit.

Data source: Google Trends, United Kingdom, 1st January 2011–1st January 2020, All categories, Web Search
Data source: Google Trends, United Kingdom, 1st January 2011 - 1st January 2020, Travel category, Web Search

OK Google, what's the difference?

Food – and new food trends in particular – can often be a source of confusion for consumers. So it's not surprising that we often ask Google to explain the "difference between" two products (figure 10).

Figure 10



Rising UK search interest in the food and drink category to understand the "difference between" two items.

For example, we ask for help understanding the differences between pairs of related items: cappuccino and latte, lager and beer, gelato and ice cream, baking powder and baking soda, sultanas and raisins, fromage frais and creme fraiche, whisky and bourbon, vegetarian and vegan, champagne and prosecco, cacao and cocoa, paella and risotto.

This trend in particular is suggestive of both expanding choice in the messy middle, and of consumer desire for information that clarifies and reassures.

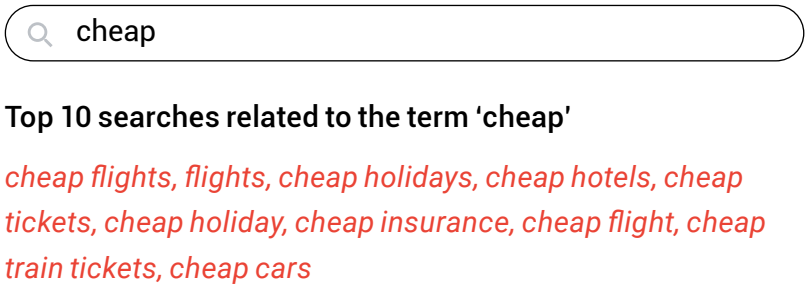
We often ask Google to explain the 'difference between' two products.

Data source: Google Trends, United Kingdom, 1st January 2011–1st January 2020, Food & Drink category, Web Search

OK Google, I want the best trip, but I want it cheap too

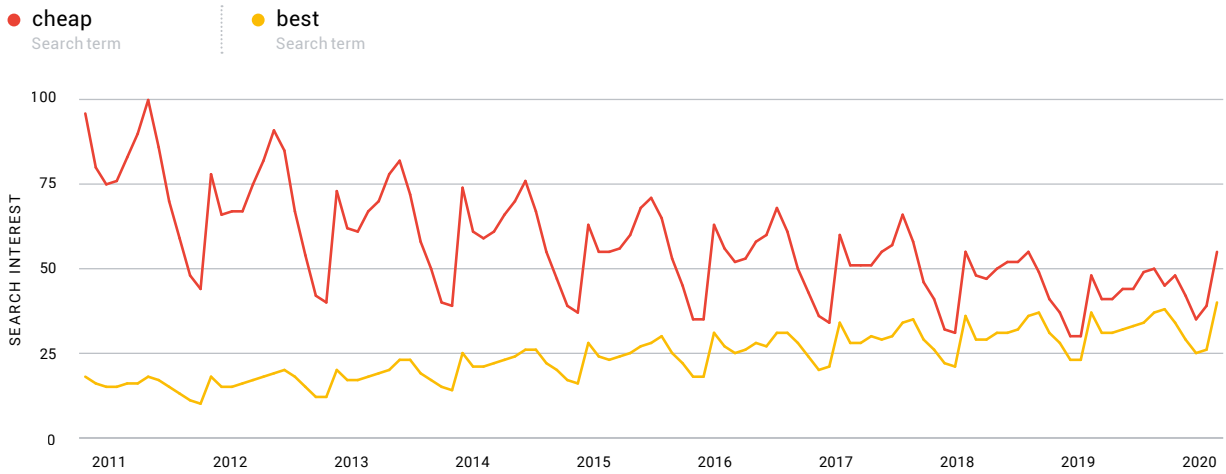
The story of "cheap" is largely a story about travel and tourism, even in 2020 when these categories were severely disrupted by the coronavirus pandemic. Of the top 10 UK search queries since 2011 including or related to "cheap", seven were definitively from the travel and tourism category (figure 11).

Figure 11



Looking at "best" and "cheap" travel searches side by side, they mirror the same pattern visible at the aggregate level (figure 12).

Figure 12



Travel category searches in the UK more often contain "cheap" than "best" but these trends have been converging.

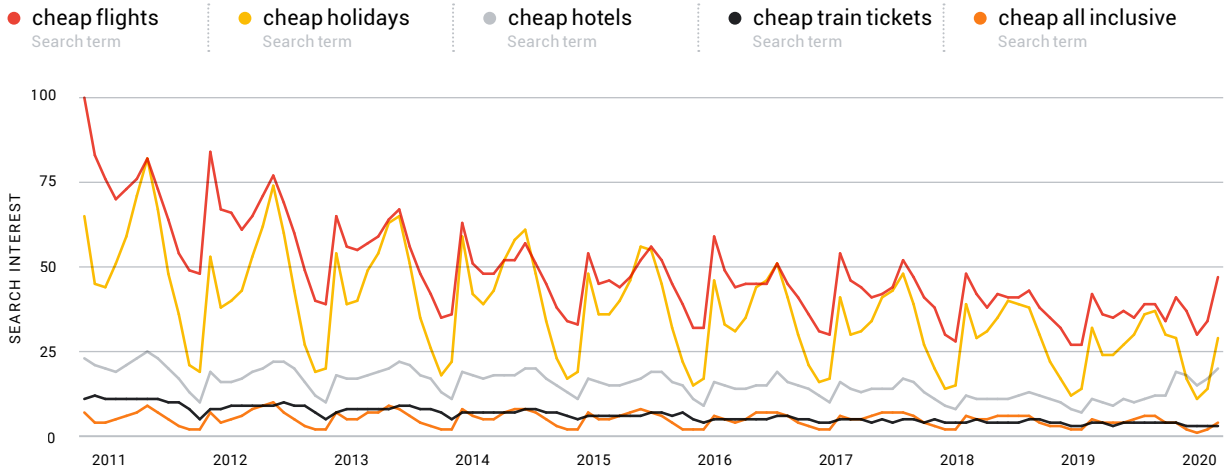
Data source: Google Trends, United Kingdom, 1st January 2011 - 1st January 2020, All categories, Web Search
Data source: Google Trends, United Kingdom, 1st January 2011–1st January 2020, Travel Category, Web Search

And as we saw earlier, with "best" sometimes occupying an exploratory function when used alongside a generic search term, these two modifiers capture both sides of the exploration and evaluation loop.

On the one hand, we perform exploratory searches to determine the most appealing destinations, eateries, and activities. For example, the upward trends we noted for "best places", "best beaches", "best hotels in", and "best things to do".

On the other hand, we appear determined to pay as little as possible for our transport to get there and our accommodation once we arrive, frequently modifying our travel searches with "cheap" (albeit with "cheap" featuring in a decreasing proportion of travel searches over time, figure 13).

Figure 13



The term "cheap" appears in a range of popular searches in the travel category in the UK.

It's notable that travel searches including "cheap" rarely contain the names of brands. While it might be tempting to assume that "cheap" searches are purely evaluative, the absence of brands shows us that these might often also be exploratory.

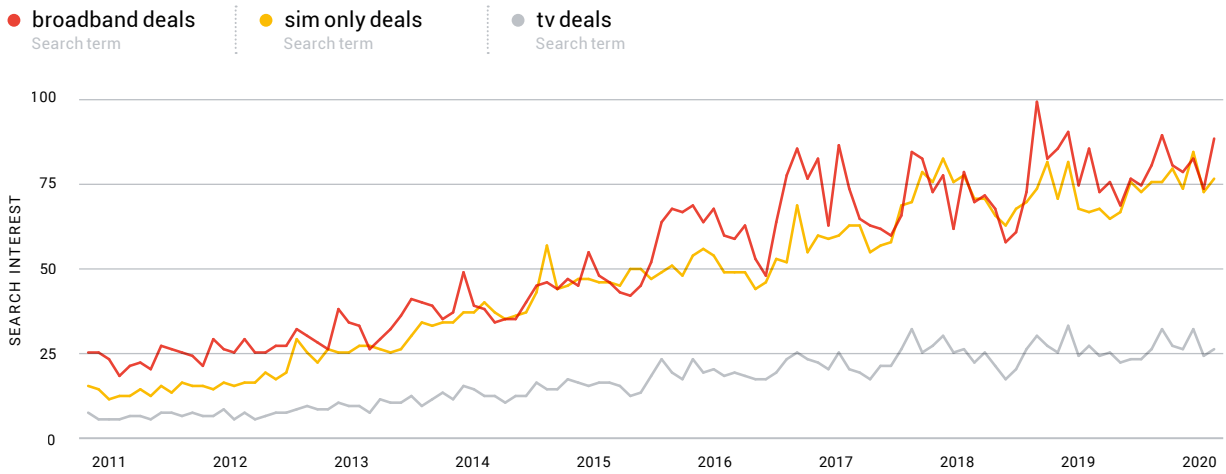
Data source: Google Trends, United Kingdom, 1st January 2011–1st January 2020, Travel category, Web Search

OK Google, show me the bargains

Three modifiers used in similar categories and for similar purposes are "deals", "offers", and "sale".

"Deals" is especially common in the internet and telecom sector. We use this modifier to seek value when both exploring and evaluating broadband, phone contracts, and TV subscriptions (figure 14).

Figure 14



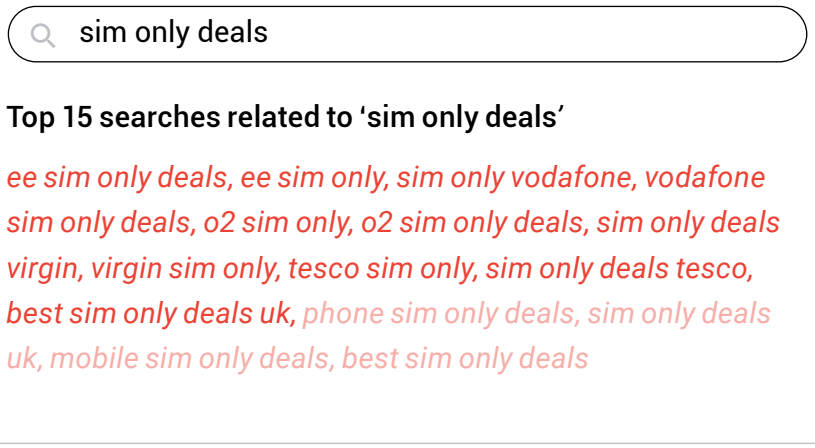
A rising proportion of UK searches in the internet and telecoms category contains the term "deals".

It's much harder to broadly characterise searches containing "deals" as explore or evaluate based on the presence of brands. Both are commonly used with and without brand names, implying that people are looking expansively for information and new brands, as well as critically evaluating the deals on offer from the brands they are considering.

Data source: Google Trends, United Kingdom, 1st January 2011–1st January 2020, Internet & Telecom category, Web Search

For example, the top 15 "sim only deals" searches in the UK in 2019 comprised 11 with a brand name (in *red*) and 4 without (in *pink*, figure 15).

Figure 15



Our other modifiers of this nature exhibit similar trends over time, albeit with different category affinities. As "deals" is to telecoms, "offers" is to grocery retail, especially with relatively high unit price purchases, such as alcohol. Conversely, the word "sale" tends to be more associated with retail categories such as clothing and furniture.[10]

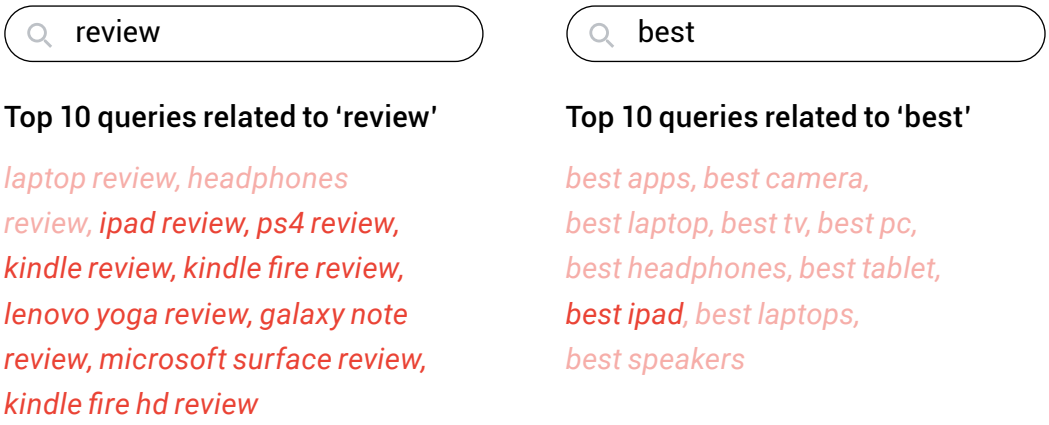
OK Google, does it have good reviews?

We've seen how the search modifier "best" can help people find out what others consider to be worth doing or buying. An even more explicit way of expressing a wish to investigate the views of others – be they peers, previous buyers, vloggers, or category experts – is to include the modifier "reviews" in a search. However, there's an interesting distinction between searches containing "best" and "reviews", with searches containing "best" rarely containing the name of a brand, while searches containing "reviews" often do.

10 Note that "sale" and "for sale" are search modifiers with very different meaning and usage. The term "sale" is associated with discounts and price reductions offered by a business, whereas "for sale" typically denotes second-hand or private sales.
Data source: Top 15 queries related to "sim only deals", Google Trends, United Kingdom, 2019, All categories, Web Search. Excludes related queries not containing "sim only"

For example, if we look at the top UK search queries of the past 10 years in the computers and electronics category, of the top 10 related to "best", only one contains the name of a manufacturer or product brand ("best ipad"). In contrast, all but two of the top 10 search queries related to "review" contain the name of a company or product brand, with the exceptions being the top two results ("laptop review" and "headphones review", figure 16).

Figure 16



Reviews are also a prevalent feature of the automotive category, with a similar trend visible in the combination of modifiers and brands (along with a few authoritative websites and magazines). The modifier "review" provides us with a clear example of shoppers actively seeking out authoritative viewpoints to boost confidence during decision-making.

Unlike "best", the fact that "review" searches typically contain the names of specific brands and products hints that review searches on the whole are more evaluative than exploratory. In many cases it appears that people have one or more potential brands and models in mind, and are looking for further information to help evaluate which would be the better choice.

As these and similar examples from this chapter show, the presence of brands is often evaluative, especially in conjunction with a specific product name. However, it is important to note that by itself, the presence of a brand term in a query is insufficient to signal the shopper's mental mode.

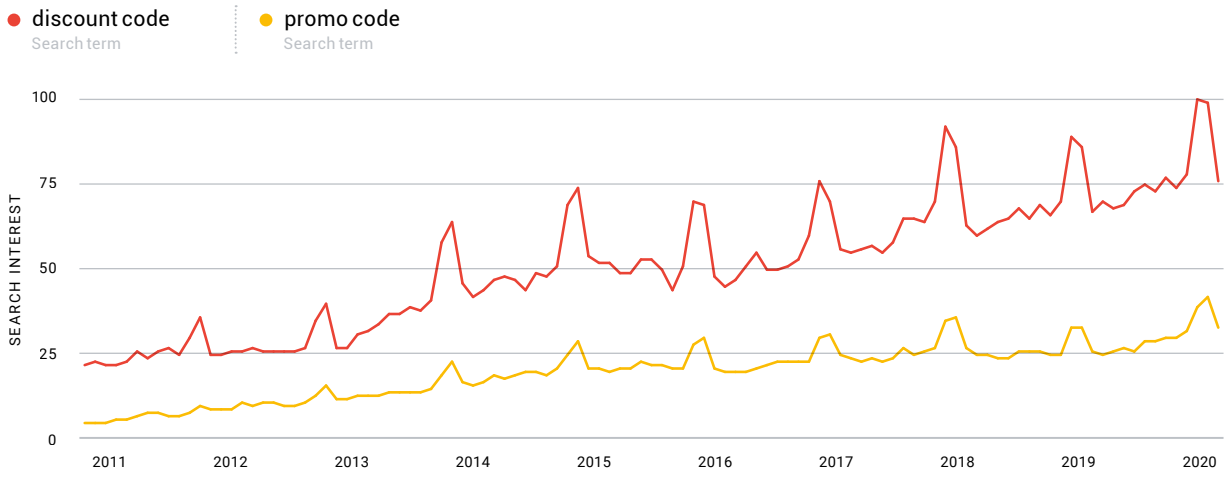
Data source: Google Trends, United Kingdom, 1st January 2011–1st January 2020, Computers & Electronics category, Web Search. Negative keyword "-buy" applied to searches containing "best".

OK Google, can I get any money off?

Our final search modifier is "discount code", although we'll group this together with its sibling, "promo code".

These modifiers have grown as a proportion of search over the past 10 years, spiking in November and December (figure 17).

Figure 17

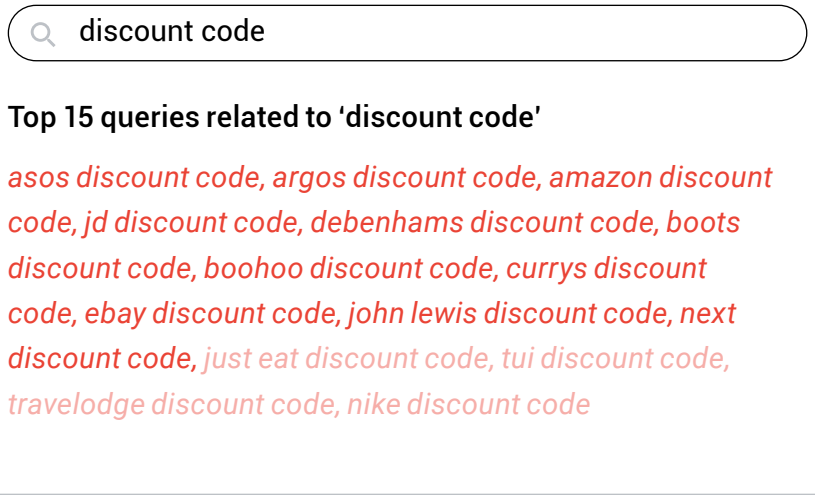


A rising proportion of UK searches contains "discount code" or "promo code".

Data source: Google Trends, United Kingdom, 1st January 2011 - 1st January 2020, All categories, Web Search

The majority of searches containing "discount code" also contain the name of a retailer. For example, of the top 15 related queries for these terms in the UK in 2019, 11 (in *red*) contained the name of a retailer (figure 18).

Figure 18



The presence of a named retailer in these searches implies that little exploration is happening here, and that the evaluative phase may be nearing an end too. As such, these modifiers place us as close as search gets to the moment of purchase.

Modifying the messy middle

As these examples show, our relationship with the things we search for is complex and mutable. But the search modifiers people use are a rich source of insight into how our thinking and behaviour have evolved over time, and can even offer clues about the underlying cognitive biases at work. In the next chapter, we'll take some of these insights and attempt to quantify the impact that specific biases can have on decision-making.

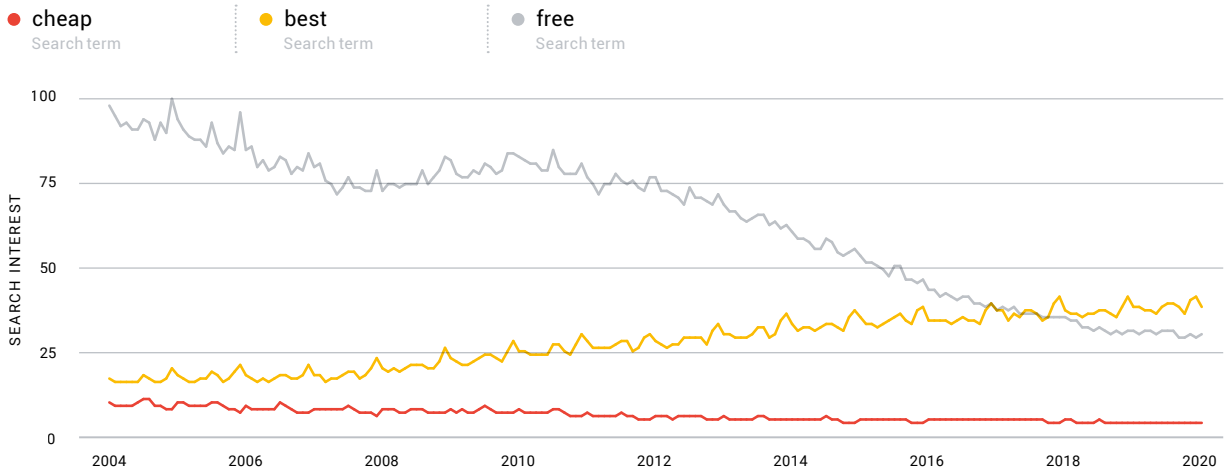
Data source: Top 15 queries related to "discount code", Google Trends, United Kingdom, 2019, All categories, Web Search

‘Best’ and ‘cheap’ around the world

Although we need to account for how the meaning of words can differ between categories, many of the trends we identified in UK data are also visible in other geographies and languages.

This is how the pattern of “best”, “cheap”, and “free” looks for all searches globally in English (below).

Figure 19

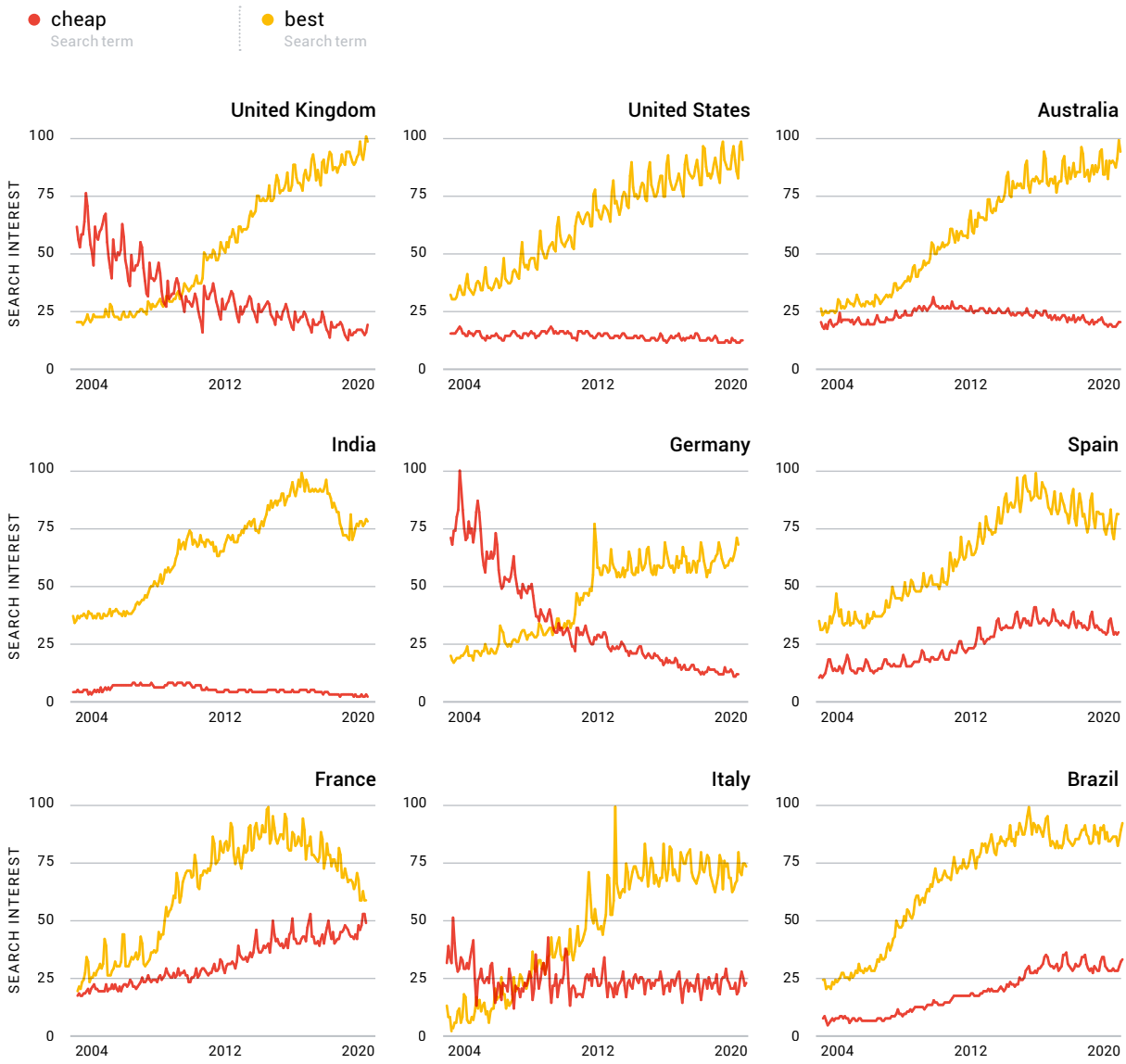


The proportion of worldwide searches containing “free” or “cheap” has been in decline, but the proportion containing “best” has been increasing.

Similar long-term trends for “best” and “cheap” are also visible when we translate those terms into the native languages of many other countries:

Data sources: Google Trends, Worldwide, 1st January 2004–1st January 2020, All categories, Web Search

Figure 20



Search trends for "cheap" and "best" around the world, translated into local languages.

The lines for "best" and "cheap" don't always cross as they do in the UK: for example in the US, searches including "best" have been more frequent from the beginning. However "best" has still seen a steady rise in the US, and "cheap" a very gradual decline, making it broadly consistent with the UK and other countries.

Data source: Google Trends, various countries, 1st January 2004–1st January 2020, All categories, Web Search

4 Influencing the messy middle

The next stage of our research involved taking what we'd learned from our literature reviews, Google Trends data, and shopping observations, and applying it in an experimental setting. Over the course of 310,000 simulated purchase scenarios, we tested the impact that various behavioural biases can have on shoppers' brand preferences.

Homo-not-so-economicus

As theories about "economic man" have given way to metaphors about riders and elephants, it would seem that most behavioural scientists now agree that, in reality, our decision-making apparatus comprises both reason and emotion.

Even a seemingly functional, low-cost purchase like buying a favourite shampoo can be prompted by emotional or rational considerations.

In the context of shopping decisions, we might be tempted to propose that the degree of rationality increases with the size and importance of the purchase. But as anyone who has ever bought a car, a house, or an expensive holiday knows, the moment the deal closes can still be fraught with complex emotion. And at the other end of the scale, even a seemingly functional, low-cost purchase like buying a favourite shampoo can be prompted by emotional or rational considerations, depending on the individual.

And of course, muddying the water of reason and emotion further is advertising – particularly branding. Brands often seek to cultivate an emotional connection with consumers – in fact, many people will openly describe themselves as loving or hating a particular brand. These associations, often bound up in our sense of ourselves and our aspirations for who we want to be, are a powerful source of behavioural change in themselves.

To design an experiment looking at how behaviour is influenced during the crucial explore and evaluate phases of our model, we needed to draw up a list of behavioural science biases to test. For this, The Behavioural Architects returned to the literature of academic behavioural science. Over the course of more than 50 years, the discipline has codified some 300 principles that explain the conscious and unconscious workings of the human mind. Of course, not all of the 300 are relevant to the kind of decision-making we're exploring here, so during a thorough review, the team whittled down the list to six biases that are closely associated with the explore and evaluate phases of our model.

A summary of six biases

The names we're using for these biases may or may not be familiar to you, but the underlying definitions are congruent with those used in academic behavioural science. Of course, you may well have used some of them in your own campaigns, or recognise them at work in the ads of one of your competitors or favourite brands.

1. **Category heuristics** are shortcuts or rules of thumb that aid us in making a quick and satisfactory decision within a given category. An example would be focusing on how many megapixels (MP) the camera has when purchasing a smartphone or how many gigabytes (GB) of data are included in a mobile phone contract.

Princeton psychologists, Shah and Oppenheimer,[11] found heuristics reduce cognitive effort through the following impacts on decision-making:

- Examining fewer pieces of information
- Relying on easy-to-access pieces of information
- Simplifying the weighting of information
- Integrating less information in a decision process
- Considering fewer alternatives overall

2. **Authority bias** describes the tendency to alter our opinions or behaviours to match those of someone we consider to be an authority on a subject. When we're unsure, we tend to follow the lead of people we believe to be credible and knowledgeable experts, and therefore may use an authority view as a mental shortcut. In one experiment, the brains of 24 college students were scanned while making financial decisions. If students received advice from a renowned economist, the scans showed that the decision-making parts of students' brains showed less activity as the students "offloaded" the burden of the decision process to the expert.[12]

11 Shah, A. K., & Oppenheimer, D. M. (2008). Heuristics Made Easy: An Effort-Reduction Framework. *Psychological Bulletin*, 134(2), 207–222
12 Engelmann J. B., Capra C. M., Noussair, C., & Berns G. S. (2009). Expert Financial Advice Neurobiologically "Offloads" Financial Decision-Making under Risk. PLoS ONE 4(3): e4957. https://doi.org/10.1371/journal.pone.0004957

3. **Social proof** posited by psychologist Robert Cialdini[13] describes the tendency to copy the behaviour and actions of other people in situations of ambiguity or uncertainty. The internet has digitised word-of-mouth reviews and recommendations, making it much easier for people to rely on social proof as a shortcut for decision-making. Sometimes we're conscious of this, for example if we take the time to read consumer reviews, but often we're influenced unconsciously. For example, without thinking, we might click on an ad that includes a four- or five-star rating, drawn to what appears to be a popular choice.

4. **Power of now** describes the fact that we tend to want things now rather than later. Humans are wired to live in the present – our evolutionary survival hinged on our ability to deal with the problems of the here and now rather than our ability to plan for the future. This explains why people often find it a challenge to save for their future.[14] "Power of now" also explains the success of instant downloads or 24-hour delivery versus having to wait to get a product.[15]

5. **Scarcity bias** is based on the economic principle that rare or limited resources are more desirable. As Robert Cialdini states: "The scarcity principle trades on our weakness for shortcuts".[16] Scarcity typically takes one of three forms:

   - Time limited: when there is a time limit to a product's availability, it creates a deadline that makes people act before the time is up.
   - Quantity limited: limited or rare supplies are perceived by people as a threat to their freedom of choice, triggering a reaction to fight the threat and maintain their access to the resource.
   - Access limited: meaning limited access to features like information, groups, or spaces. Censorship makes people place a higher value on restricted features because exclusivity makes them feel special.

13 Caldini, R. B. (1984). Influence – *The Psychology of Persuasion*. Collins. **14** Thaler, R. T. (1991). "Some Empirical Evidence on Dynamic Inconsistency" in Richard H. Thaler, ed.. *Quasi Rational Economics*. New York: Russell Sage Foundation, 127–33. **15** The scientific name for "power of now" is discounting the future, which the economist Richard Strotz explored in 1955 with his work on hyperbolic discounting and time inconsistent preferences. **16** Caldini, R. B. (1984). Influence – *The Psychology of Persuasion*. Collins.

6. **Power of free** describes the fact that there is something special about the price of zero. The demand for a product or service is significantly greater at a price of exactly zero compared to a price even slightly greater than zero. In his book "Predictably Irrational", behavioural economist Dan Ariely writes about a study in which people were given the option to choose between two offers. One was a free $10 Amazon gift card, the other a $20 gift card that could be bought for only $7. More people chose the $10 gift card, despite the other option offering superior value.[17] The power of free can be thought of as an emotional hot button – a source of irrational excitement that can be critical in persuading a consumer to make a purchase decision.

While certainly not a definitive list of every bias in play, our set of six represents several of the most powerful principles identified in the literature, all of which are suitable for testing at scale. It also has the advantage of covering implementations that range from simple copy changes to more complex merchandising and logistical decisions.

Testing the six biases

The biases identified by The Behavioural Architects have been thoroughly examined in an academic context, but to gauge their importance to marketers we knew we would have to place them within a purchase-making context to see how they affect the emotional weight of competing brands.

The previous experimental results we reviewed were often from relatively small samples, without a purchase or brand aspect, and not systematically applied across different products and categories. So we set out to build a method that would address these challenges: a shopping simulation purpose-built to provide the insights marketers need.

As the basis of our experiment we chose to apply conjoint analysis – a statistical technique much used and well understood in marketing to quantify the relative importance people place on the different attributes of a product or service.

17 Ariely, D. (2008). *Predictably Irrational: The Hidden Forces That Shape Our Decisions*. Harper.

Typically a conjoint analysis compares the importance of a range of tangible features or benefits to a proposition, but the points of variance in our test would be the presence and relative strength of the cognitive biases. Conjoint studies can be delivered in a range of formats, but for our purposes we chose to create a generic, unbranded website which would situate participants' decision-making within a familiar context.

Before the simulation began, shoppers were asked to share their first and second favourite brands from a selection within a specific category. These preferences then became the basis of the simulation, with the shoppers asked to choose between pairs of brands to which some or all of our six biases had been applied. Using this method, we were able to measure the preference of brand versus brand on a level playing field, and test the power of each bias to switch preference from favoured to less-favoured brands.

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A few limitations

There are, of course, a couple of real-world variables that our simulation can't account for. Price is often a determining factor in purchase decisions, especially where there is a large degree of difference between options. As such, the shoppers who participated in our research were told that the products and services they were considering were priced at the current expected market value, eliminating price as a variable.

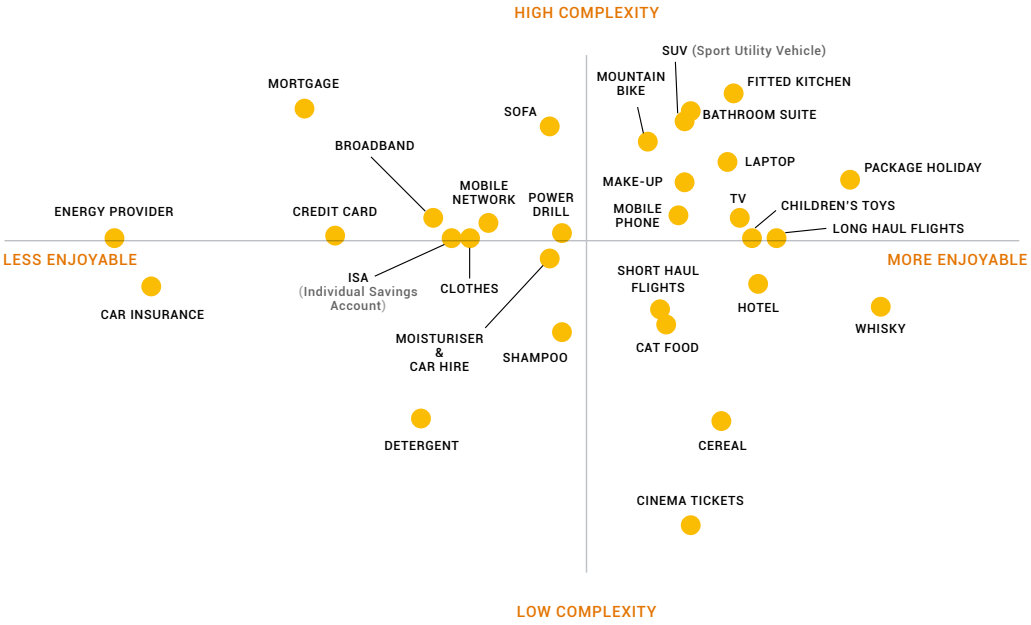
The second complicating variable in the simulation is to do with brand building. Once in the simulation, shoppers were exposed to full-colour graphical logos of their preferred brands. Any pre-existing associations between our shoppers and those brands (what our marketing model terms "exposure") remained active throughout the simulation.

It's a jungle out there

We argued at the start of this chapter that any purchase decision, from choosing a mortgage to buying your favourite shampoo, can contain both rational and emotional elements. In certain circumstances, rider and elephant might eventually reach the same destination, but having made the journey via very different routes.

To test whether the impact of brand preference and cognitive bias remains stable across categories, we selected 31 products representing a broad range of risk, complexity, and emotional and financial investment, covering several major verticals and sectors, including travel, financial services, consumer packaged goods, retail, and utilities (figure 1).

Figure 1



Matrix of product categories, showing perceptions of enjoyability and complexity.

Given the online purchase format of our conjoint experiment, we established some broad criteria to qualify our shopper sample.

Source: Google / The Behavioural Architects. n=31,000 category buyers, online shoppers, aged 18–65 (31 categories, 1,000 respondents in each). Participants answered the following questions (1–7 scale). Results were then grouped by factor analysis (questions 1 and 5 for "enjoyment", question 2–4 for "complexity") and plotted accordingly. 1. How enjoyable do you find looking for [relevant 'product']? 2. How complex/difficult is it to find the right [relevant 'product']? 3. How much effort does it take to find the [relevant 'product] you want? 4. How worried are you about making the wrong choice of [relevant 'product]? 5. How experienced/knowledgeable do you feel about [relevant 'product] in general?

We wanted participants who were familiar with online shopping, so to control for this we selected people who said they had shopped at the UK's largest online retailer. Likewise, we wanted shoppers who were familiar with searching for products online, so we selected people who had used the UK's most popular search engine for that purpose. Together, these two characteristics provided a broad, qualified sample of participants familiar with the parameters and conventions of online shopping.[18]

The final and most important qualification was that every participant had to be in-market for the product featured in their simulation, and intend to purchase it within a timeframe appropriate for that category (in other words, for car shoppers the applicable window would be longer than for someone buying shampoo). We also excluded anyone who said they had already made their mind up about exactly which product they were going to buy, to exclude the possibility that participants might have already exhausted their capacity for exploration and evaluation.

To ensure a robust sample size for each product, we recruited 1,000 shoppers in every category. This equated to several thousand shoppers per sector, and a total sample of 31,000 in-market shoppers for macro-level, cross-category analysis. Participation was remote, with each shopper completing 10 purchase simulations within a given category, giving a total of 310,000 purchase scenarios within which to analyse our six cognitive biases. Because of the prejudicial effect of measuring the presence of a bias against the absence of the same bias, we paired different levels of execution ranging from strong to weak (for instance next-day versus seven-day delivery, or five-star versus three-star reviews).

We believe that our tests amply – and with statistical validity – demonstrate the fluidity of preference between trigger and purchase. However, the results of a simulation can only ever be indicative, and as such we don't suggest that anyone should treat our results or recommendations as a substitute for their own rigorous, in-market testing.

So, with caveats and methodology taken care of, on to the experiments.

18 Respondents who never use Google Search or never use Amazon (2% of category buyers aged 18–65) were screened out before participating in the research.

The simulation

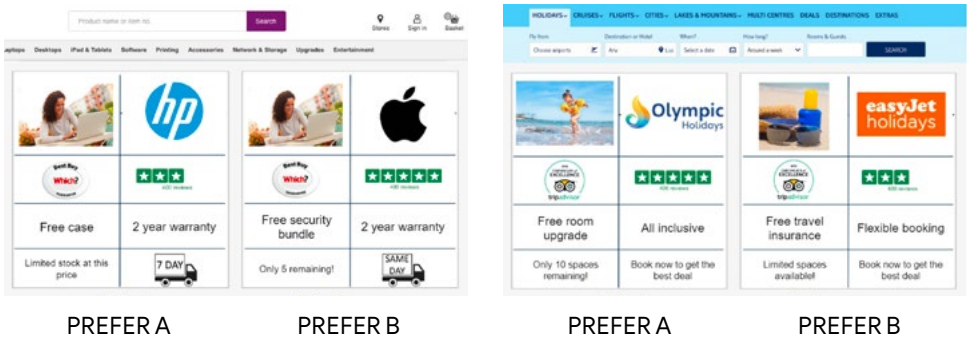
The objective of these purchase simulations is to understand how marketing effectiveness can be improved in the messy middle, using behavioural science principles to either avoid or create disrupted brand preferences.

This translates into a threefold research objective:

1. Quantify and measure the importance of brand preference in the messy middle
2. Quantify and measure the susceptibility of those preferences to disruption through the application of cognitive biases
3. Understand how the above varies across different product categories and verticals

Before the simulation began, each of our 31,000 shoppers were asked for their first-choice and second-choice brands. These preferences then appeared on screen as in the example on the previous page (figure 2).

Figure 2



Examples of the simulation interface, taken from the laptops and package holidays categories.

The navigational conventions and layout of the site were modelled on familiar retailers, but without any specific branding in the user interface. The only brand signals the shopper received were those exposed within the experimental frame itself.

Within the frame, shoppers were presented with two boxes, Prefer A and Prefer B. During the simulation, these boxes contained eight smaller boxes, which displayed the logos of the brands being tested and information about the product that the shopper might find during exploration. In our simulation, all of this information was contained on one screen rather than being revealed over the course of several sequential clicks and screens.

It was this supplementary product information to which our behavioural science principles were applied during testing. For example, star ratings were varied to test different applications of the social proof principle, or different recommendation types to measure the importance of authority bias. Each of the expressions featured in these information boxes had up to three levels of intensity (for example three-star, four-star, and five-star reviews) for comparison. The expressions of our biases were modelled on real-world instances, but were quite basic in their execution, lacking any sort of creative gloss.

With both brand logos and all relevant information in place, the shopper was asked to choose which they preferred. They were instructed not to overthink the decision, but to follow the same process of discernment they would when making a real-life purchase. From the collated results, we're able to measure the impact of any single element or combination of elements, quantifying the impact of each change as an increased or decreased share of preference for the respective brand.

The power of showing up

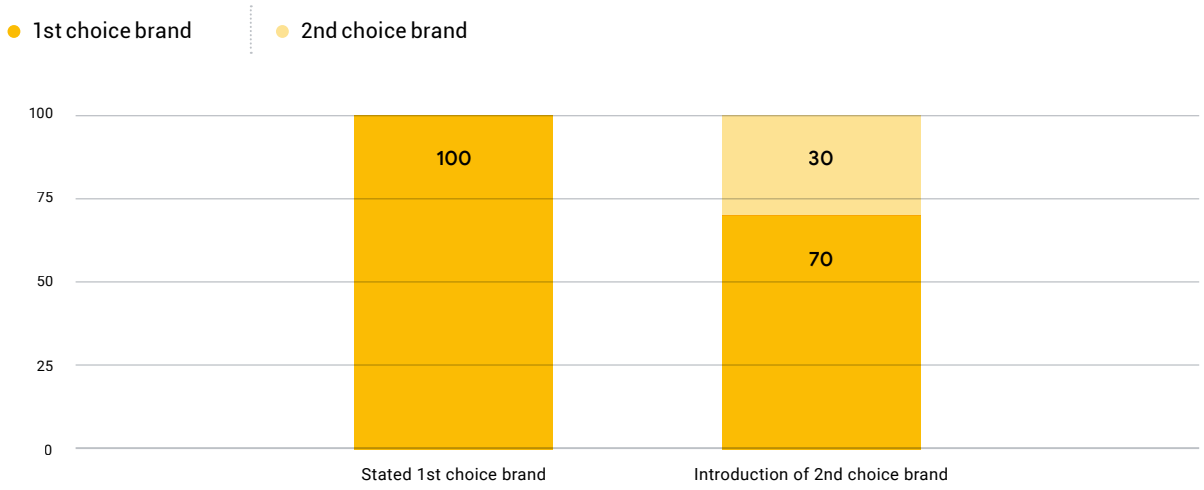
Implicit in the structure of our experiment (and marketing in general for that matter) is the idea that to take preference share away from a competitor brand, you have to be present when consumers are deliberating.

This might seem obvious, but it's such a fundamental point that we don't want its importance to be mistaken. And as we'll see, there is surprising power in just showing up at the right moment.

In our first analysis of the simulation data, we compared first- and second-preference brands, with all other expressions of our biases statistically controlled to remain neutral.

This example (figure 3) simulated a car purchase (for an SUV specifically) – a decision into which several considerations, such as safety, reliability, efficiency, and performance might reasonably intrude.

Figure 3



Transfer of preference from first choice to second choice brand after introduction of second choice brand, car (SUV) category.

In this chart we can see that when a second favourite brand was introduced as an option, 30% of shoppers changed away from their first preference.

Of course, for many shoppers the second choice brand also might be positively associated with many of the factors mentioned above.

Simply giving the shopper the option to choose their second choice brand was enough to entice 30% away from their initial choice.

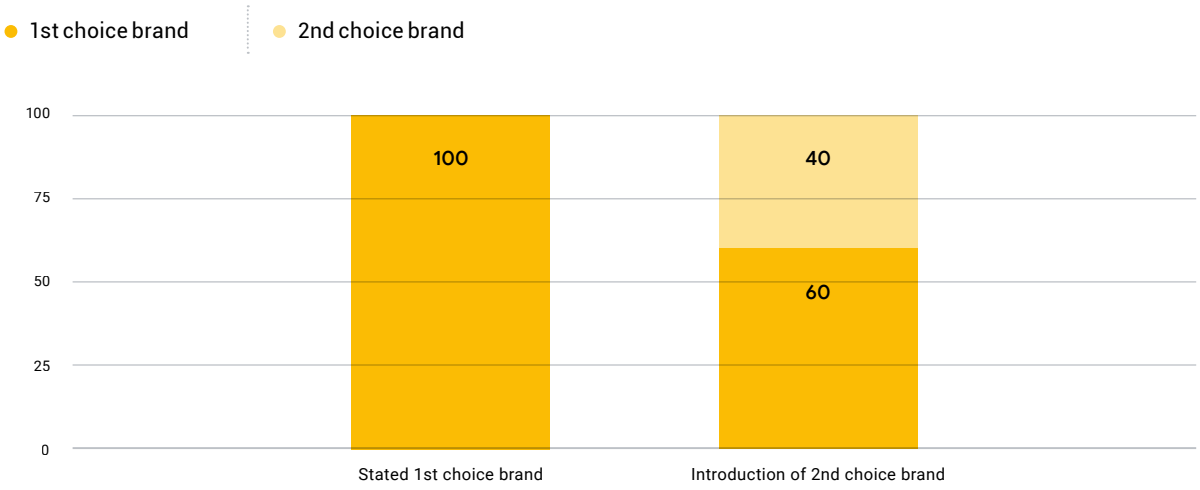
Source: Google / The Behavioural Architects. 10,000 simulated car (SUV) purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18–65.

But even bearing that caveat in mind, it is remarkable that, despite their stated preference, and statistically controlling for the differences in other variables, simply giving the shopper the option to choose their second choice brand was enough to entice 30% away from their initial choice.

The car category is full of recognisable brands, so this result may in part simply be down to two sets of powerful associations doing battle in the shopper's mind. But what if we look at another category, no less hotly contested but with very different associated values and brand attributes?

Buying a car sits at one end of the spectrum of purchase complexity on our product matrix, so let's look at a related but less complex purchase - car insurance (figure 4).

Figure 4



Transfer of preference from first choice to second choice brand after introduction of second choice brand, car insurance category.

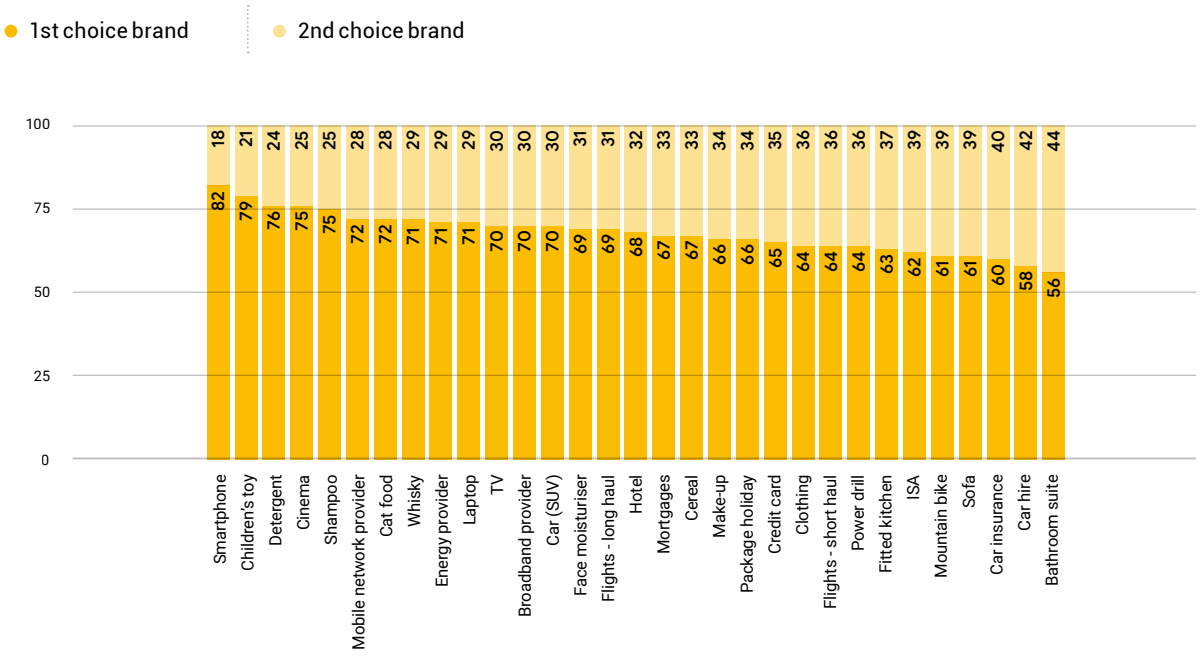
It turns out that car insurance is also far from immune to the power of showing up. In fact, the effect is even larger than that witnessed in the car purchase simulation, with only two of the 31 categories in our experiment being more prone to switching than car insurance.

Source: Google / The Behavioural Architects. 10,000 simulated car insurance purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18–65.

According to our product matrix, the purchase of car insurance is not just less complicated than a car purchase, it is also less enjoyable. These characteristics might partly explain the increased impact of the introduction of the second choice brand, as it suggests the purchase requires lower levels of engagement and therefore is more prone to switching. Nevertheless, the results are stark.

Below is a chart showing all of the products in our experiment (figure 5), ordered according to the size of the impact on share of preference when shoppers were offered the choice of a second brand (the yellow portion shows the share seized by the second favourite brand when exposed).

Figure 5



Transfer of preference from first choice to second choice brand after introduction of second choice brand, all categories.

The extent of the impact on share of preference ranges considerably. On the far left of the chart, just showing up delivered a relatively weaker share of preference for second choice brands in the smartphone category (18%) than those who were willing to switch their preference of bathroom suite brand (44%).

Source: Google / The Behavioural Architects. 310,000 simulated purchases. n=31,000 category buyers, online shoppers, aged 18–65 (31 categories, 1,000 respondents in each). Numbers may not add to 100 due to rounding.

What this chart shows is the likelihood across categories that shoppers will switch from their stated first choice brand to their second choice, when presented with both as options. However, since each brand within a category will have a different level of resilience, the chart cannot be used to predict the extent to which any individual brand will be susceptible to transfer of preference to a competitor.

Looking at performance across verticals reveals a couple of interesting patterns. The favourite consumer packaged goods brands were broadly less susceptible to the presence of another brand in our simulations than utilities like mobile network, broadband, and energy supplier. General retail products such as children's toys, laptops, TV, clothing, and sofas are scattered throughout, while financial services products (mortgage, credit card, ISA, car insurance) generally sit towards the right-hand side, with a greater susceptibility to preference switching.

Social proof: people respond to people

Having established a baseline for switching preference without variation in any of the cognitive biases, we wanted to see what degree of preference shift could be achieved by applying the principles of behavioural science identified in our literature review.

In nearly every case, social proof (expressed as three-star versus five-star reviews) proved to be the most powerful behavioural bias, having either the largest or second-largest effect in 28 of the 31 categories we tested.[19] Therefore we're going to state this upfront, and then quickly move beyond it to look at some of the more nuanced, category-specific examples.

Giving people evidence that other shoppers have already had a positive experience with a brand, product, or service is extremely persuasive. The gold standard of social proof – reviews and comments – can be difficult for marketers to create out of nothing, as it relies on customers sharing their post-purchase experience. However social proof, when it exists, can also be evoked simply and powerfully through claims in copy, such as "the nation's favourite" or "the popular choice".

19 In each instance, different average review scores between three stars and five stars were compared with the total number of reviews for each brand remaining equal.

The low-hanging fruit of behavioural science

Many of the biases we tested are even easier to execute, requiring neither large volumes of customer ratings, nor a memorable way with words. In fact, several can be implemented through basic copy and design modifications alone.

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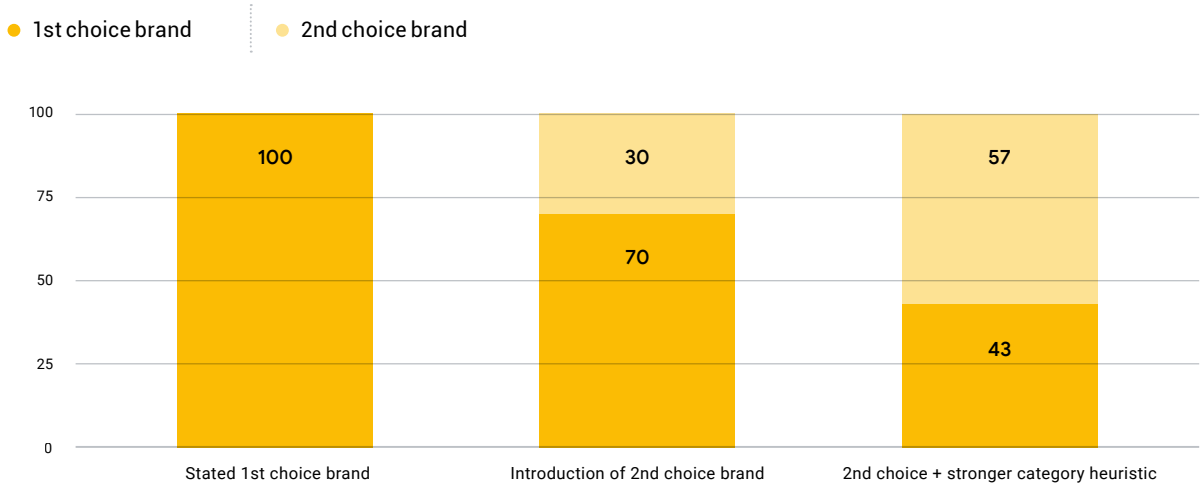
Category heuristics

Category heuristics are powerful and relatively simple to implement. In our simulation, they achieved the largest or second-largest effect in 14 of 31 categories. In the scientific literature, category heuristics are defined as shortcuts or rules of thumb that help people make decisions – vital pieces of information that help clarify our options, such as the amount of memory in a laptop or the number of carats in a diamond.

To make effective use of category heuristics, marketers need to understand which characteristics consumers most associate with a given product or service. This is often also the characteristic they value most. For example, when we looked at broadband, we found that highlighting data allowances achieved the largest transfer in share of preference away from the initial favourite brand (figure 6).

Figure 6

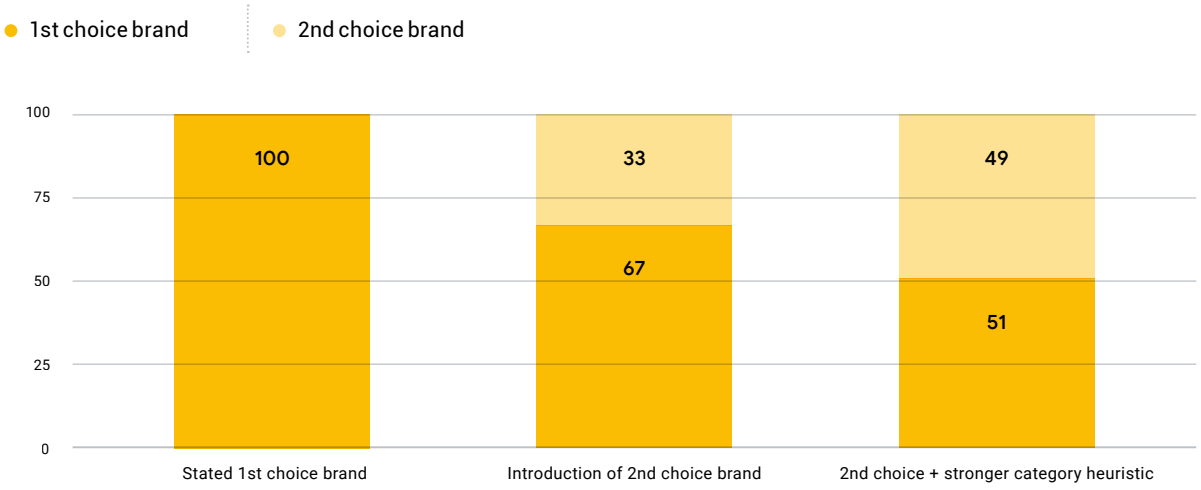


Category heuristics tested: "unlimited monthly usage" and "dedicated customer service". Transfer of preference from first choice to second choice brand – category heuristics analysis, broadband provider category.

Source: Google / The Behavioural Architects. 10,000 simulated broadband provider purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18–65.

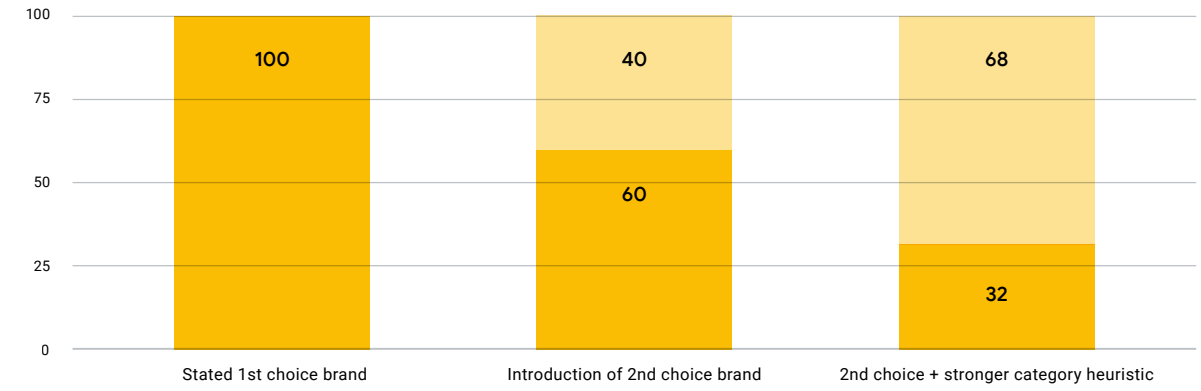
Category heuristics also proved to be a decisive factor in the finance vertical, achieving the greatest transfer in share of preference for both mortgages and car insurance categories. In these highly structured products, our simulations show that consumers are particularly attuned to look for characteristics such as the duration of a fixed rate or the treatment of no-claims status (figures 7 and 8).

Figure 7



Category heuristics tested: "28 month fixed rate" and "5% deposit" (mortgages). Transfer of preference from first choice to second choice brand – category heuristics analysis, mortgage category.

Figure 8



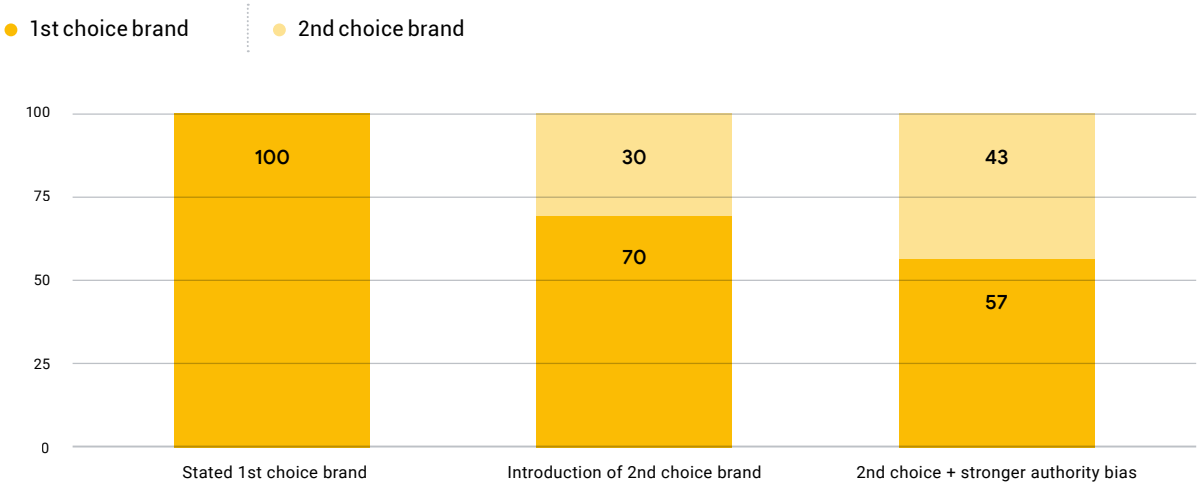
Category heuristics tested: "no claims protection" and "autorenewal not required" (car insurance). Transfer of preference from first choice to second choice brand – category heuristics analysis, car insurance category.

Source: Google / The Behavioural Architects. 10,000 simulated mortgage purchase scenarios, 10,000 simulated car insurance purchase scenarios. n=1,000 mortgage buyers / 1,000 car insurance buyers, UK online shoppers, aged 18-65.

Authority bias

Although our simulation shows it to be less powerful than its close cousin, social proof, authority bias is still a very effective way to reassure shoppers through citation of awards and expert reviews. This proved particularly effective in categories where consumers might feel at a disadvantage through lack of domain-specific knowledge, such as home furnishing, home improvement, and electronics. Unsurprisingly, our simulation also found that when it comes to authority, the endorsement of a publication known to be impartial tended to carry more weight than a review from an industry publication (figure 9).

Figure 9



Sources of authority tested: Which? and TechRadar. Transfer of preference from first choice to second choice brand – authority bias analysis, TV category.

Scarcity bias

Scarcity messaging is perhaps one of the more immediately recognisable executions of behavioural science in our list. However, in our simulations it was most often the least effective bias. While it can be effective as a clinching factor during final evaluation, for exploring shoppers scarcity could feel restrictive and provoke a negative reaction.

Source: Google / The Behavioural Architects. 10,000 simulated TV purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18–65.

Cross-functional implementations

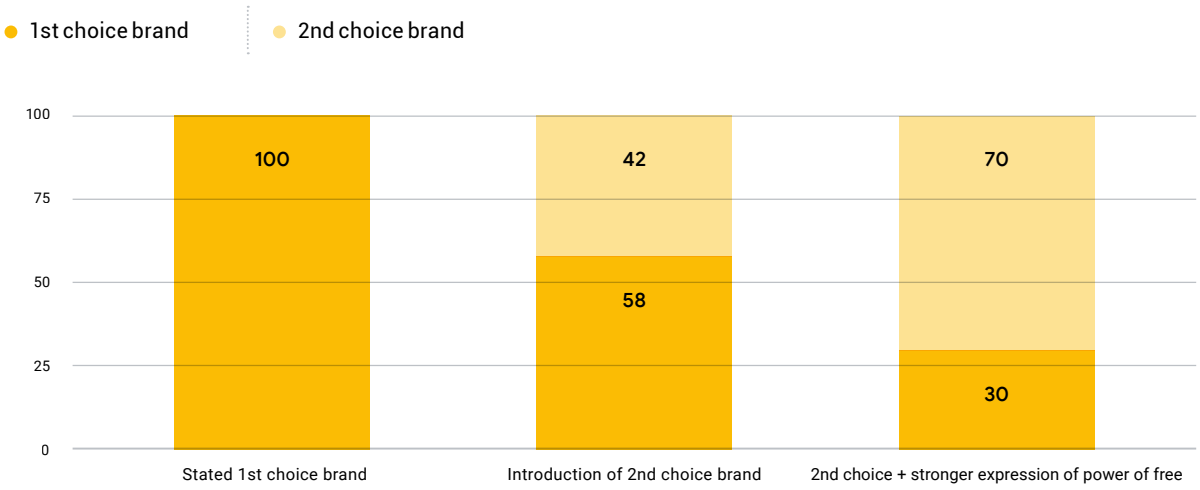
We also tested a selection of more involved biases. Implementing these will require collaboration across functions, particularly where increased costs are likely to be incurred.

The power of free

Giving something away isn't always the sole discretion of the marketing department, so capitalising on the power of free will probably involve buy-in from other departments such as finance and merchandising. However, the effort is likely to be rewarded, as our simulation findings show that the power of free can be a major influence on behaviour, having either the largest or second-largest effect on transfer of preference in 18 out of 31 categories.

In the car hire category, we tested the power of free by boosting the shopper's favourite brand with a free car clean, while the second favourite brand offered a free extra day's hire. This effect turned out to be the third most powerful of all the biases we tested, with a transfer of 70% away from the favourite brand (figure 10).

Figure 10



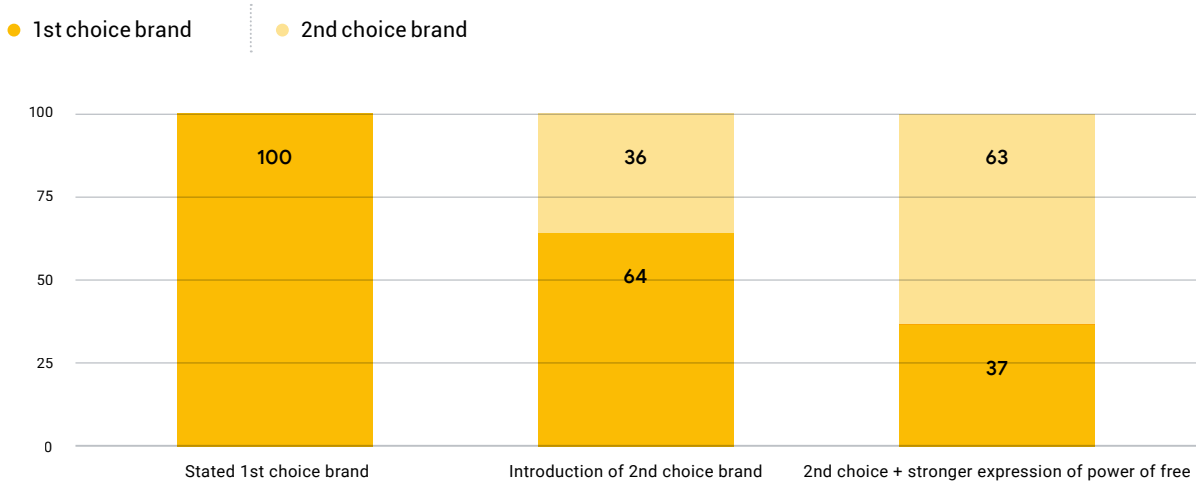
Power of free executions tested: "free day - 3 days for the price of 2" and "free car clean". Transfer of preference from first choice to second choice brand – power of free analysis, car hire category.

Source: Google / The Behavioural Architects.10,000 simulated car hire purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18–65.

While handing out freebies and upgrades worked well with expensive transactions, the power of free also proved itself with lower-cost, everyday purchases. A buy-one-get-one-free (BOGOF) offer was the second most effective expression of a bias in transferring brand preference in the detergent category, while free popcorn at the cinema also achieved a second-place result.

In the short-haul flights category, we see an interesting example of how biases sometimes combine, with a free checked bags offer both expressing the power of free and an important category heuristic (figure 11). This is an issue to which our simulation participants obviously brought a lot of baggage, as the offer proved the most powerful expression of any behavioural bias in the category.

Figure 11



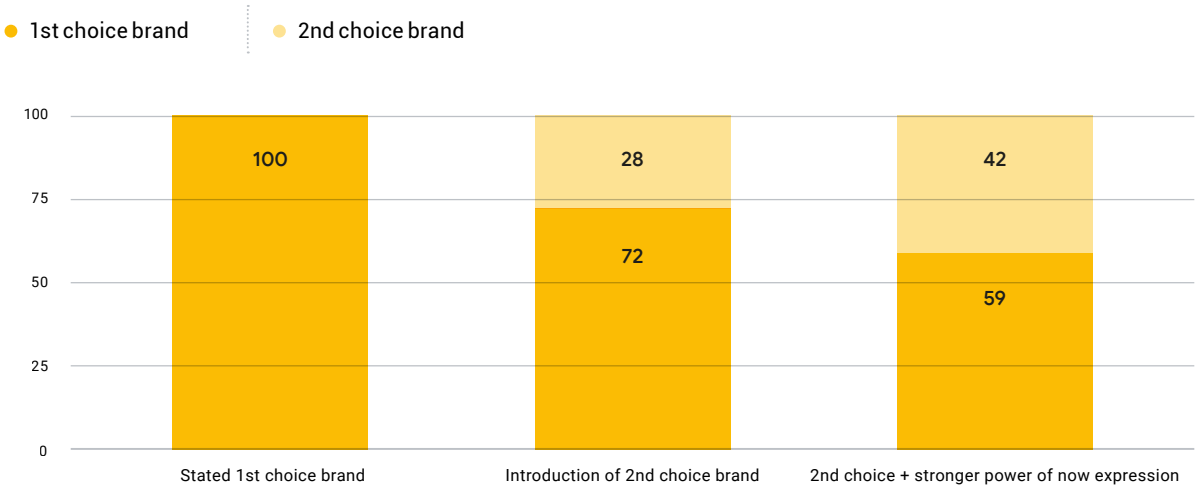
Power of free executions tested: "free checked luggage" and "free hot drink". Transfer of preference from first choice to second choice brand – "power of free" analysis, short-haul flight category.

Source: Google / The Behavioural Architects. 10,000 simulated short-haul flight purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18–65.

The power of now

The immediate gratification of rapid delivery wasn't a huge difference-maker in our simulation, but it still had a meaningful effect on a handful of categories. In fast-moving consumer goods (FMCG), products like detergent, moisturiser, cereal, and cat food all saw consumers responding positively to offers of next-day delivery (figure 12).

Figure 12



Power of now executions tested: "24 hour delivery" and "7 day delivery". Transfer of preference from first choice to second choice brand – "power of now" analysis, cat food category.

Same-day delivery also had an appreciable effect in the clothing and children's toy categories, where the convenience of this option serves to de-risk a highly individual purchase. It may also be more effective when deployed during evaluation, when it could help to differentiate between competing propositions. However, whether the additional costs of free delivery would be justified from a business perspective can't be discerned from behavioural data alone.

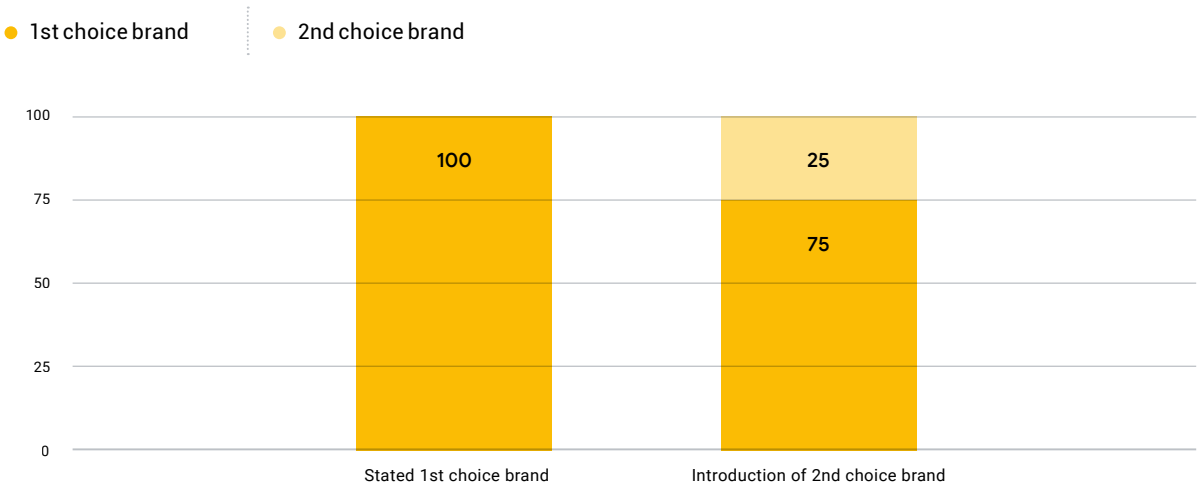
Source: Google / The Behavioural Architects. 10,000 simulated cat food purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18–65. Numbers may not add to 100 due to rounding.

Supercharging the second-choice brand

Having explored a variety of behavioural biases across a range of categories, we next wanted to see how much more brand preference could be won if second favourite brands were "supercharged" with strong expressions across all six biases.

The shampoo category is an interesting case in point. First choice shampoo brands proved surprisingly resistant when the second choice brand was introduced, losing only 25% – less than were prepared to switch in high-cost categories like cars and mortgages (figure 13).

Figure 13



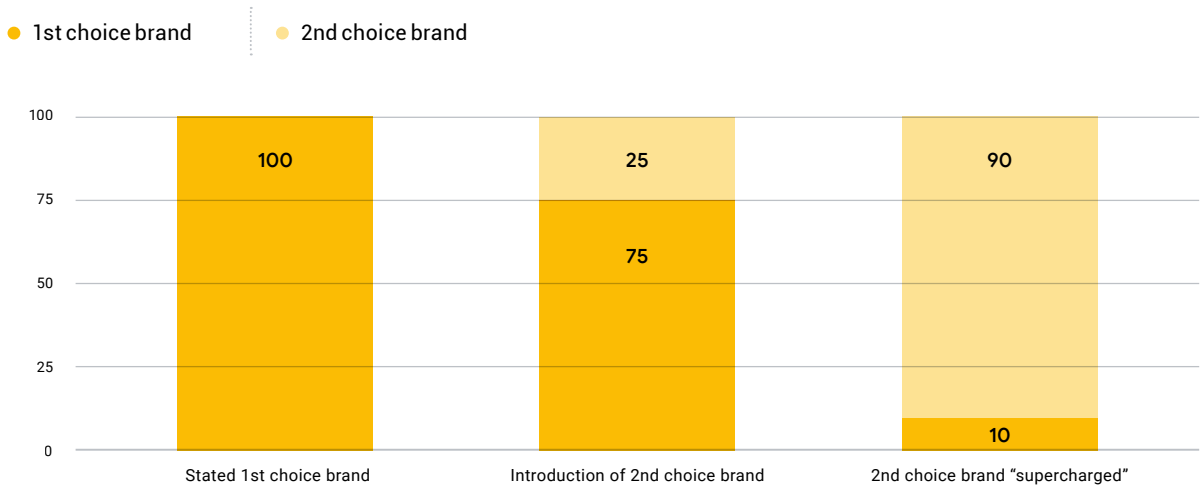
Transfer of preference from first choice to second choice brand after introduction of second choice brand, shampoo category.

Source: Google / The Behavioural Architects. 10,000 simulated shampoo purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18-65.

We can speculate that the reason for this resilience might be that shampoo is a product where, once a trusted brand has been identified, people tend not to switch. So, if we take that hypothesis as a starting point, how much preference share can we take away from the favourite brand if we use all the biases at our disposal?

The result is impressive (or alarming, depending on your point of view) with the second choice brand able to take a full 90% of preference away from the first choice brand when supercharged with all six biases (figure 14).

Figure 14



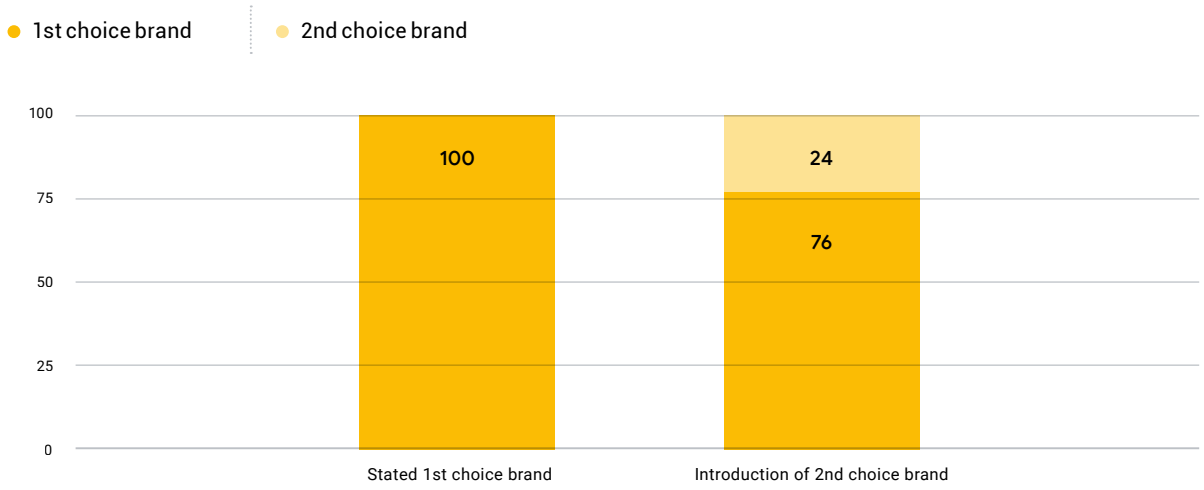
Transfer of preference from first choice to second choice brand – bias supercharging analysis, shampoo category.

The second choice brand [was] able to take a full 90% of preference away from the first choice brand when supercharged with all six biases.

Source: Google / The Behavioural Architects. 10,000 simulated shampoo purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18-65.

We see a similar result in the detergent category, where the power of habit, familiarity, and huge FMCG marketing budgets make initial brand preferences impressively sticky in the presence of a challenger (figure 15).

Figure 15



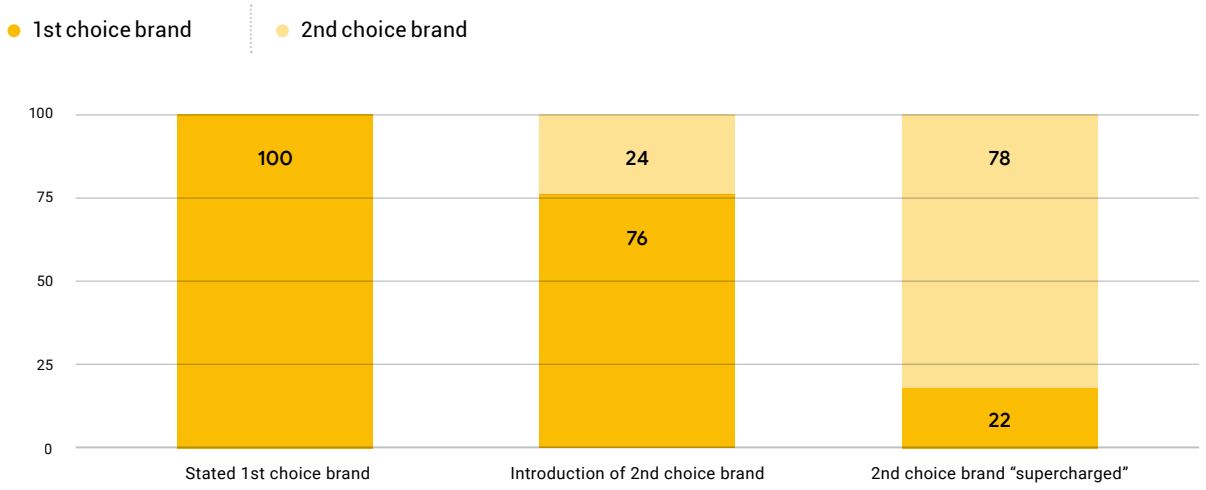
Transfer of preference from first choice to second choice brand after introduction of second choice brand, detergent category.

In fact, of all the product categories we examined, only smartphone and children's toy preferences proved more resilient than detergent.

Source: Google / The Behavioural Architects. 10,000 simulated detergent purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18-65.

However, when we supercharged the second favourite detergent brand with a range of powerful expressions aimed at our cognitive biases, such as a BOGOF offer, five-star reviews, and an endorsement from Which? (a UK brand that provides impartial testing, reviews, and advice), the impact was profound. Boosted with everything we could throw at it, the second choice won 78% of shopper preferences, in a category where the first choice brands had proven relatively resilient to the mere introduction of the second choice (figure 16).

Figure 16



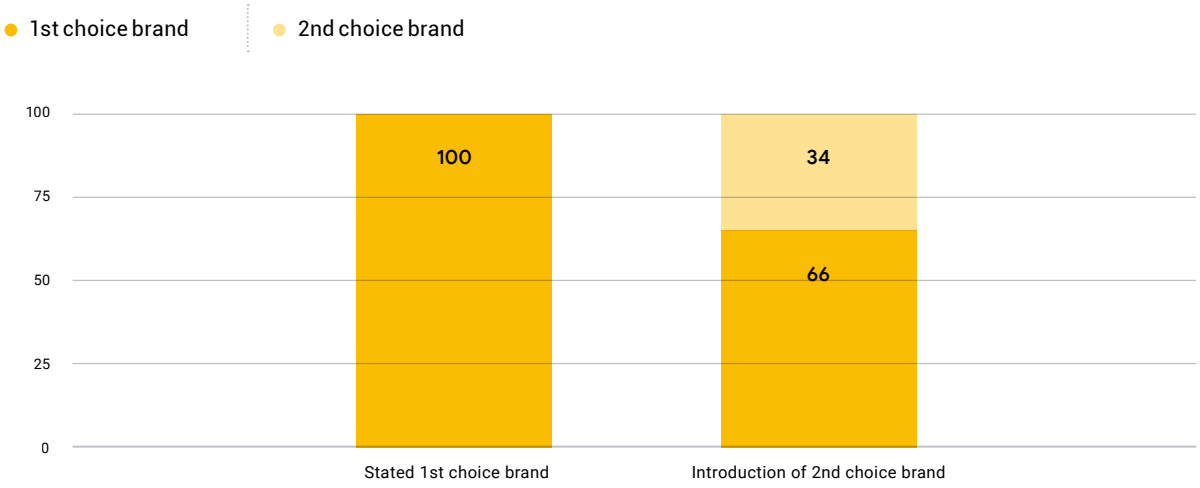
Transfer of preference from first choice to second choice brand – bias supercharging analysis, detergent category.

Shampoo and detergent are both fairly low-cost, low-complexity purchases that we make several times a year at a minimum. But what about a big-ticket purchase we only make once a year?

Source: Google / The Behavioural Architects. 10,000 simulated detergent purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18-65.

Package holiday first choices proved more susceptible to shoppers switching preference than either shampoo or detergent, with 34% immediately willing to switch to their second favourite brand when given a choice, holding the other biases constant (figure 17).

Figure 17

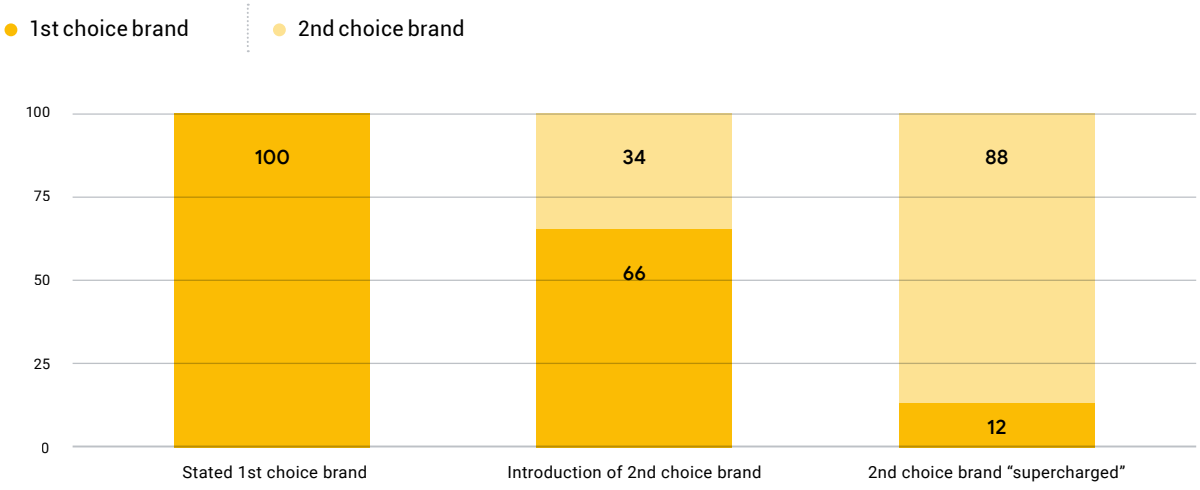


Transfer of preference from first choice to second choice brand after introduction of second choice brand, package holiday category.

Source: Google / The Behavioural Architects. 10,000 simulated package holiday purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18-65.

With a much higher impact from the introduction of the second choice brand, it's perhaps unsurprising that when supercharged with powerful expressions of all six biases, the favourite package holiday brand found itself unable to hold on to much of its preference share. In total, the supercharged second favourite brand managed to draw away 88% of shoppers, attracted by limited availability, positive reviews, and similarly boosted expressions across the board (figure 18).

Figure 18



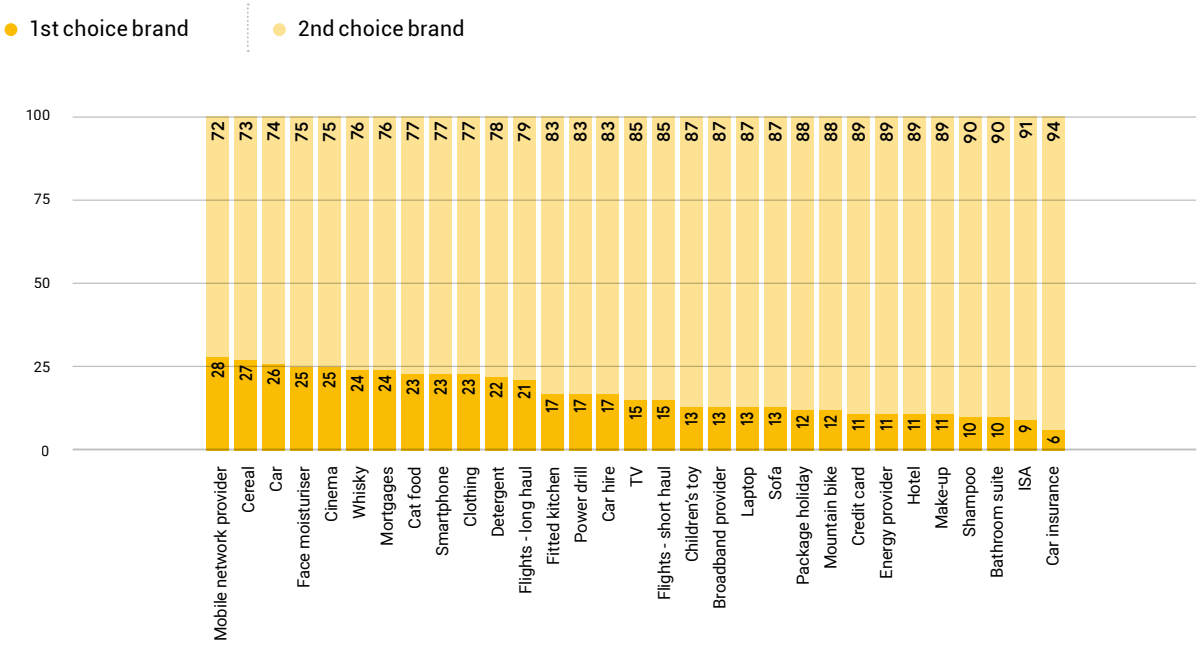
Transfer of preference from first choice to second choice brand – bias supercharging analysis, package holiday category.

Across our 31 categories, when second favourite brands were supercharged with all six cognitive biases, the result was a profound shift away from the favourite. Even the stickiest category, mobile network provider, retained less than a third of first choice preference.

Source: Google / The Behavioural Architects. 10,000 simulated package holiday purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18-65.

As we saw in the earlier cross-category summary, financial products such as car insurance, ISAs, and credit cards prove to be among the most susceptible to a transfer of preference away from favoured brands, while FMCG products such as moisturiser and breakfast cereal were among the most resilient (figure 19).

Figure 19



Transfer of preference from first choice to second choice – bias supercharging analysis, all categories.

Across our 31 categories, when second-favourite brands were supercharged with all six cognitive biases, the result was a profound shift away from the favourite.

Source: Google / The Behavioural Architects. 310,000 simulated purchases. n=31,000 category buyers, online shoppers, aged 18-65 (31 categories, 1,000 respondents in each). Numbers may not add to 100 due to rounding.

As a testament to the power of our six behavioural biases, this was impressive enough. But there was still one more scenario we wanted to try.

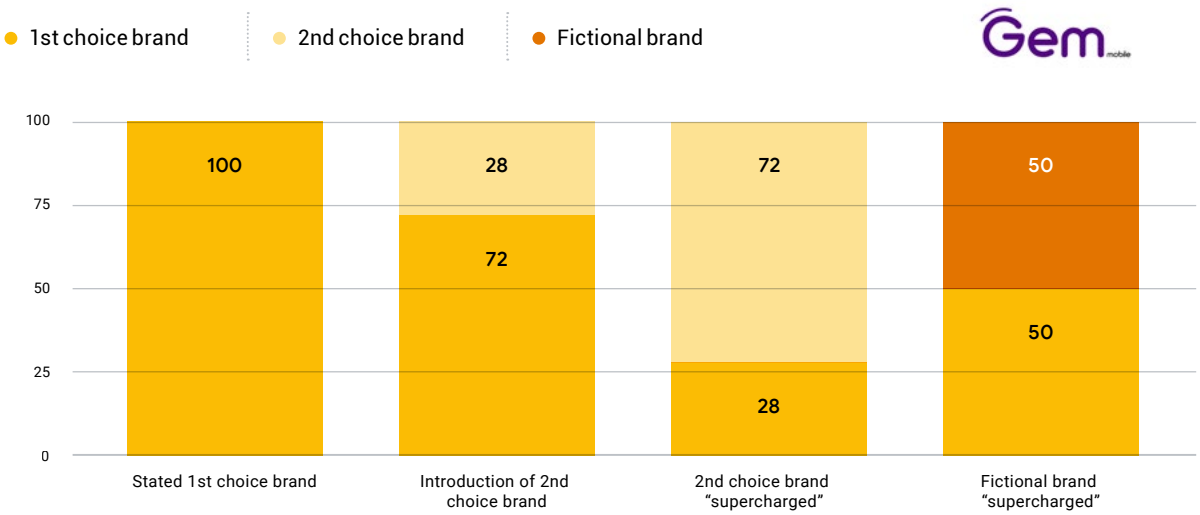
Starting from nothing

Finally, to explore the most extreme implications of our findings, we introduced a complete wildcard. We decided to create a fictional test brand to assess how much preference share an unknown challenger might take if it was able to hit all of the biases we'd identified.

We decided to create a fictional test brand to assess how much preference share an unknown challenger might take if it was able to hit all of the biases we'd identified.

And even with everything we'd learned so far about the power of these behavioural principles, the results came as a surprise. For example, in the mobile network category, our fictional brand, Gem Mobile, was able to take almost 50% of preference from the favourite brand (figure 20).

Figure 20



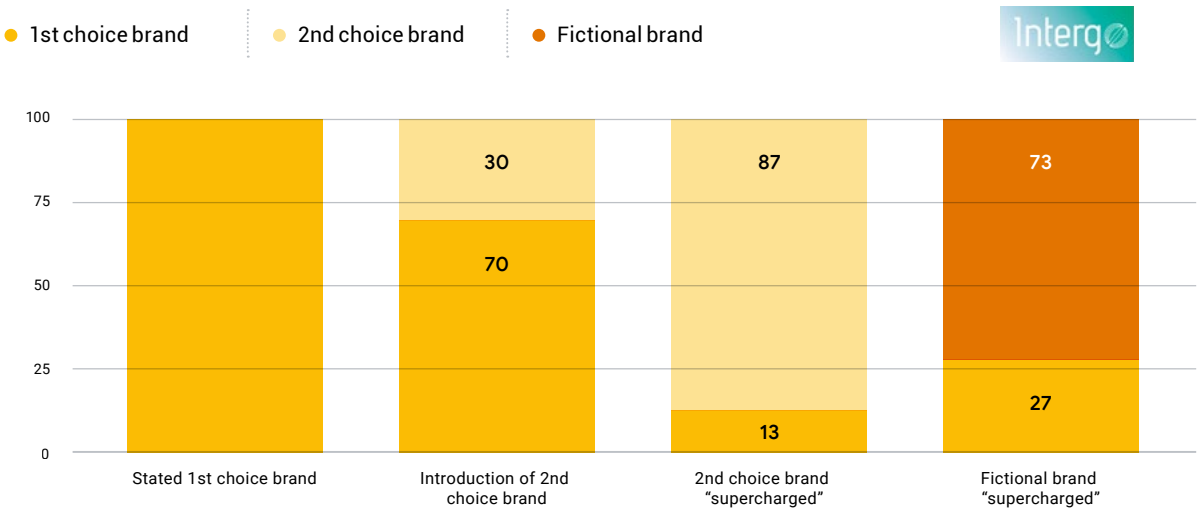
Transfer of preference from first choice to fictional brand – bias supercharging analysis, mobile network category.

Entering new markets is a challenge. Even if we skip over the operational barriers to entry, in many of the categories we simulated, incumbent marketing budgets and brand associations are considerable, presenting yet another hurdle for challengers. Agile, intelligent use of behavioural science might give newcomers a vital advantage.

Source: Google / The Behavioural Architects. 10,000 simulated mobile network provider purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18-65.

Following on from the example of Gem Mobile, we also created Intergo, a new broadband provider to test against the established competition. Similarly we threw every advantage behind this newcomer, and the effect turned out to be even more eye-catching. In this case, Intergo was able to claim 73% of brand preference away from the original favourite (figure 21).

Figure 21



Transfer of preference from first choice to fictional brand – bias supercharging analysis, broadband category.

Before we get too carried away, it's worth noting that to achieve these significant shares of preference, the two challenger brands needed far superior propositions. And indeed, some aspects of those enhanced propositions are probably out of reach even for a well-funded challenger. This is particularly true of the volume of positive reviews necessary to constitute persuasive social proof, which must be earned over time as consumers experience a product or service.

Source: Google / The Behavioural Architects. 10,000 simulated broadband provider purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18-65.

And it's also worth noting that established brands still exert quite a pull. Even with a vastly superior proposition, half of mobile network service shoppers still rejected Gem Mobile and opted for an inferior, less appealing proposition, because it came from their favourite brand.

The comparison between these two verticals might indicate that broadband provision in the UK, operating as it does on largely the same network infrastructure, is more commoditised than mobile network provision. But even with that being the case, over a quarter of shoppers rejected the challenger and chose to stick with their tried-and-tested favourites.

And in both simulations, the second choice brands outperformed their fictitious counterparts by a substantial margin when both were supercharged to the same degree against the first choice.

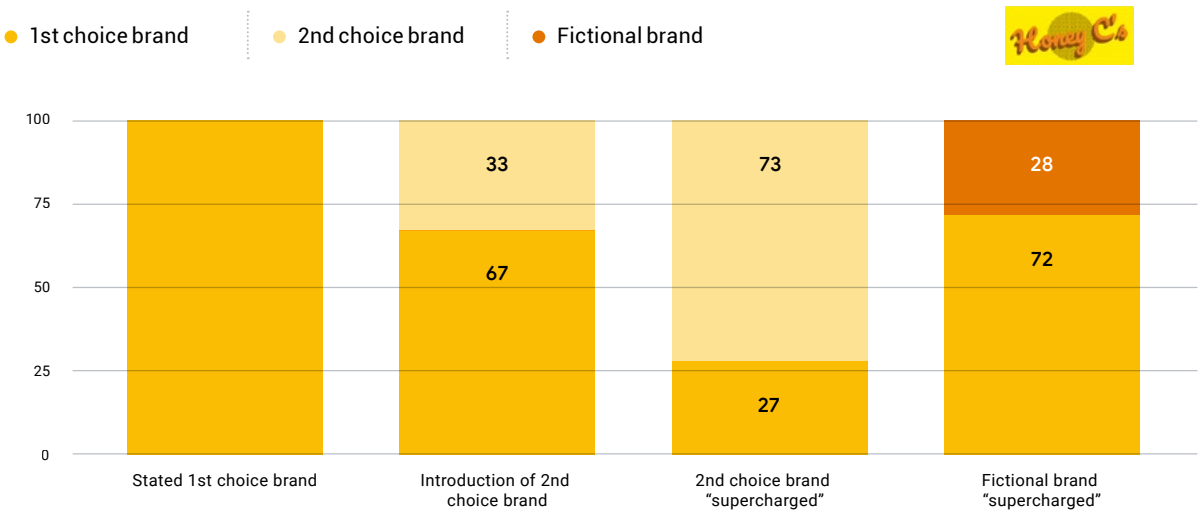
But we weren't just limited to comparing these two product types. We created and tested fictional brands in each of our 31 categories. All of the brands we invented loosely followed the conventions of their category, with logos and typefaces derived from their real-world counterparts. And yet, despite their surface plausibility, the fact remains that none of our participants had any awareness or investment in any of these brands before the moment they first encountered them. In terms of our marketing model, their "exposure" level was zero.

Fictional brands

Despite their surface plausibility, the fact remains that none of our participants had any awareness or investment in any of these brands.

Interestingly, the only category where shoppers showed relative hesitancy over switching was with our fictional breakfast cereal brand, Honey C's. Just over a quarter were willing to switch from their favoured brand, even when the fictitious proposition was fully supercharged (figure 22).

Figure 22

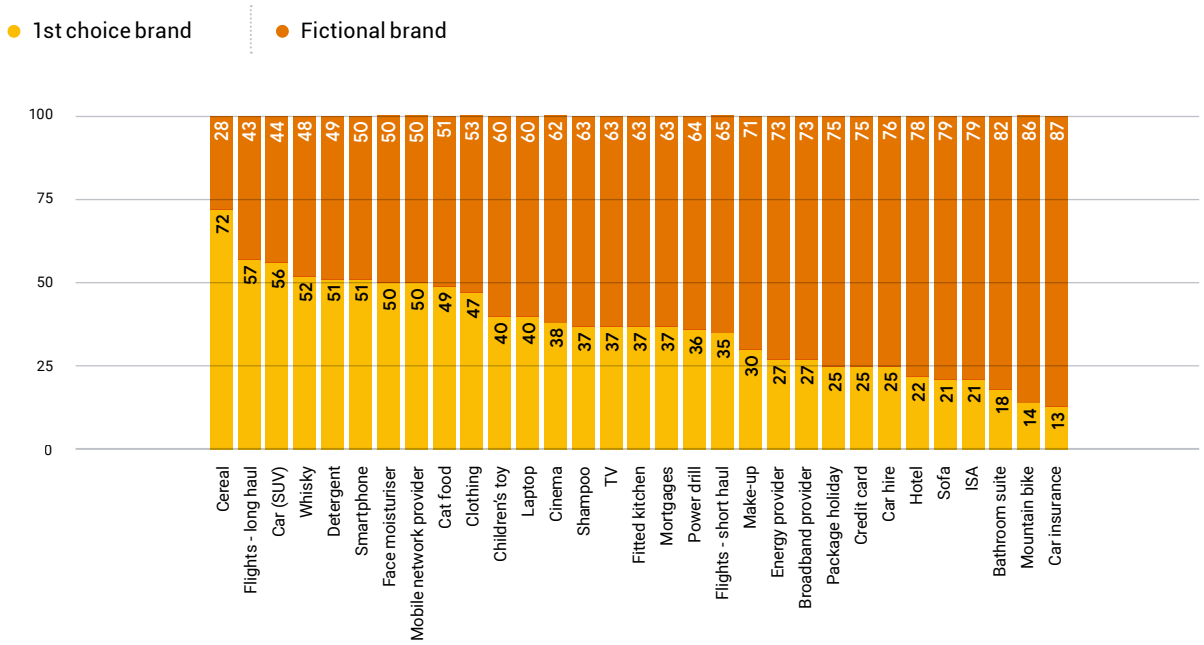


Transfer of preference from first choice to fictional brand – bias supercharging analysis, cereal category.

Source: Google / The Behavioural Architects. 10,000 simulated cereal purchase scenarios. n=1,000 category buyers, UK online shoppers, aged 18-65.

Of course, as much as we've tried to keep the design of our fictional brands faithful to the conventions of their sector, it is possible that these shoppers detected a subconscious hint that signalled our deception. Or alternatively, breakfast cereals, particularly sweet varieties, may just enjoy strong brand loyalty (figure 23).

Figure 23



Transfer of preference from first choice to fictional brand – bias supercharging analysis, all categories.

Looking at the fictional brand scenario across all categories, once again the yellow portion of the stack represents the share of preference for the shoppers' first choice brands and the orange portion is the share of preference for the supercharged fictional challenger.

The product reordering throws up some intriguing cross-vertical patterns: FMCG predominantly featuring on the left of the chart, financial services, travel, and utilities towards the right, retail scattered throughout. However, we should reiterate that these patterns are only suggestive, and certainly shouldn't be used to quantify market-entry opportunity, as there remain uncontrollable aspects of each brand and product relative to their category that will also have influenced the degree of preference shift.

Source: Google / The Behavioural Architects. 310,000 simulated purchases. n=31,000 category buyers, online shoppers, aged 18-65 (31 categories, 1,000 respondents in each). Numbers may not add to 100 due to rounding.

Simulation summary

Our simulations offer a framework for decoding how decisions are made in the messy middle. Over the course of some 310,000 simulated decisions, we've seen how the behavioural biases identified in our literature review can have a powerful effect on shopper preferences.

Before we draw conclusions, we have to bear in mind that not all of our biases are as effective across every category. And it's worth repeating that none of our executions used anything other than basic copy and design, so these results don't speak to the power of creative to harness and enhance cognitive biases.

But with those caveats in mind, three broad conclusions can be drawn:

1. Even a brand you've never heard of can disrupt preferences in the messy middle

There's no doubt that the results of our fictional brand tests will be surprising to many readers. Some may even find themselves sceptical of the endeavour. However, the results of the experiment are consistent with the premise that behavioural biases have powerful effects on purchase decisions. In the world of the simulation, these brands existed, supercharged with the best possible expression of our behavioural biases. Shoppers made a choice, and while established brands still exerted a powerful pull, the biases had the effect that behavioural science theory said they would.

Marketing history is littered with stories of start-up challenger brands who came out of nowhere to seize substantial market share.

After all, marketing history is littered with stories of start-up challenger brands that came out of nowhere to seize substantial market share. Many of those brands will have made extensive use of behavioural science to boost the impact of their market entry. If you want a recent example, you only need to look at the growth of direct-to-consumer mattress brands, which all make use of powerful cues like free delivery, free returns, extensive user reviews, and expert endorsements.

Our simulations have revealed some biases so powerful that every brand should be aware of their influence, if only to be able to defend against competitors leveraging biases such as social proof and the power of free. But for the most part, brands would not want to approach this area piecemeal. Each of the biases we explored addresses a cognitive need, and as our supercharging results show, brands that know how to help consumers navigate and simplify decision-making are often richly rewarded.

Many shoppers remained loyal to their favourite brand even when the alternative offered a vastly superior proposition.

2. The overdog effect – brands (still) matter

Despite our best efforts to swing things in favour of the fictional brands, in every category, many shoppers remained loyal to their favourite brand even when the alternative offered a vastly superior proposition. In several cases, more than half of all category participants were uninterested in shifting away from their favourite, and in the majority of categories more than a third ignored the challenger and stuck with their first choice.

Everyone loves an underdog story – unfavoured brands shifting preferences just by showing up and out-marketing their rival with some clever tactics. It's certainly an appealing tale, but as our data shows it isn't the *whole* story.

3. Presence can be all it takes to shift preferences in the messy middle

There's power in just showing up at the right moment. And this effect is visible across every category we tested. This is such a fundamental truth that we're making it the last of our three insights.

Even in a complex world, sometimes all it takes to make a big impact is to show up at the right time.[20]

Even in a complex world, sometimes all it takes to make a big impact is to show up at the right time.

Getting comfortable in the messy middle

The messy middle isn't always an easy place for marketers to navigate. But as our experiments show, with a few powerful behavioural cues to act as signposts, brands can show up at the right moment and win consumer preference, whatever their category.

In the next chapter, we're going to be building on these results by looking at the wider implications of our experiments for both established and challenger brands marketing in the messy middle.

20 The "mere exposure" effect also suggests that continued presence should have a long-term impact on consumer affinity and preference, as repeat exposure to something engenders an increase in positive feelings about it.

5 Implications of the messy middle

Implications for brands

With both theory and experimental evidence in hand, in this chapter we're going to start looking at what our research findings mean in practice for marketers. We'll explore how both established and challenger brands can adapt to the new consumer reality, and identify the key implications for both types of business.

For established brands

As our shopping experiments show, even established brands can find themselves vulnerable within the swirl of the messy middle.

Heavyweight brands can't afford to be complacent: understanding the behaviour and mindset of consumers is now a vital part of protecting market share.

Established brands represent a significant historical and ongoing investment. This research suggests that these businesses may not be getting the optimal return on that investment if they aren't conscious of the disruptive potential of the messy middle. Just being present during initial consideration isn't enough. With shoppers happy to loop through multiple phases of exploration and evaluation, even the biggest brands need to ensure that they are present and meeting consumer expectations throughout the decision-making process.

For challenger brands

For less-established brands, our shopping experiments demonstrate that the messy middle offers rich prospecting for nimble and resourceful marketers.

Challengers should see the messy middle as a window of opportunity: consumers are willing to explore and evaluate alternatives, and even entirely new brands have the chance to change mindsets, disrupt established preferences, and win new customers.

Our research reveals that far from being an insurmountable obstacle to market entry for newcomers, consumer brand preferences can be fragile across many categories. Our insights into the impact of biases such as social proof, the power of now, and the importance of visibility at key moments of consideration can help level the playing field against even established brands.

The good news is that for both well-established and challenger brands, the right approach to marketing in the messy middle is identical. We've identified three key actions, which we'll explore in detail over the rest of this chapter:

1. **Ensuring brand presence**, so that your product or service is strategically front of mind while your customers explore.

2. **Intelligently (and responsibly) employing behavioural science** principles, so that your assets and messages become more compelling as customers evaluate their options.

3. **Closing the gap between trigger and purchase**, so that your existing and potential customers spend less time exposed to competitor brands.

Challengers should see the messy middle as a window of opportunity.

1. Ensuring brand presence

Put simply, none of the other tactics explored in this report are possible if you don't first show up and make a claim for the consumer's attention. **Being present from the first moment of deliberation is table stakes for any brand hoping to emerge triumphant from the messy middle**.

As we've seen, simply being presented with a choice can lead to significant changes in consumer preference. Consumers instinctively favour those brands that enable exploration and help them to make sense of the messy middle, especially when they first enter the space. Ensuring brand presence creates (or retains, in the case of repeat customers) mental availability for your products and services, which would otherwise be ceded to competitor brands.

To cut through in the messy middle and make swift, effective connections with customers in "explore" mode, you should:

- Use available data to qualify and categorise shoppers who are **exploring** – data-driven algorithms should eventually make this identification possible at scale.
- Provide a great user experience that makes exploring your offerings as easy as possible.
- Present all the relevant information potential customers need to make a rapid transition into evaluation and then on towards purchase.

Brands are long-term strategic assets, expensive to build and maintain. This research is not intended to define a comprehensive brand strategy, nor to give insight into how the exposure phase contributes to the enduring associations and attachments that branding activity seeks to foster.

However, as we've seen in our shopping experiments, simple behavioural biases can powerfully undermine even strong brand preferences. So, whether you're seeking to maintain the preferred status of an established brand, or looking to introduce a new contender to the market, you need to show up and deploy the behavioural biases most relevant for your category.

Although we believe that a comprehensive search strategy is essential, showing up isn't just a question of keywords and ads. Depending on your category, price comparison engines, social media platforms, video, news, and niche content such as gaming or technology sites may be equally important when maintaining parity of brand presence. Comprehensiveness is key – any gaps in your media plan could see you locked out of the loop as consumers begin exploring their options.

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2. Intelligently (and responsibly) employing behavioural science

In his 2019 book "Alchemy", Rory Sutherland references a theory attributed to former Ogilvy & Mather ad executive Joel Raphaelson. The theory states that: "people do not choose Brand A over Brand B because they think Brand A is better, but because they are more certain that it is good." This is a subtle distinction, but one we think is borne out by the results of our research. In particular, consumers are looking for reassurance to buttress their purchase decisions during the evaluation stage of our model and as they move on to purchase.

Brands themselves provide this reassurance – in our shopping simulations, even when fictional or non-preferred brands were supercharged to address all six biases, the preferred brand still invariably retained some loyalty. This is just one example of how a better understanding of the cognitive biases that underpin decision-making can help to create a compelling proposition that appeals to shoppers at an instinctive level.

A better understanding of the cognitive biases that underpin decision-making can help to create a compelling proposition that appeals to shoppers at an instinctive level.

Employing behavioural science intelligently

Although pre-existing brand affinity and price are undoubted drivers of purchase decisions, we have seen that purchase outcomes can also be strongly influenced by the messages, propositions, and tactics that competing brands bring into play. Behavioural science principles can be applied at several points within the messy middle:

- Use available data to qualify and categorise shoppers who are **evaluating** – data-driven algorithms should eventually make this identification possible at scale.
- Ensure that your ad messaging is tailored to the needs of evaluative shoppers, containing behavioural biases relevant to your category.

- When shoppers visit your site, the user experience should make the evaluation process as simple as possible, with appropriate detail and functionality.
- Use tactics such as retargeting and basket-abandonment messaging to engage with evaluative shoppers who are in danger of exiting back into explore mode.

Shoppers don't engage with brands in a vacuum once they enter the messy middle – the process of exploration and evaluation is inherently comparative. With that in mind, it's a good idea to regularly review how your offering and messaging compare with that of the competition.

While many brands will audit their competitors for price and product feature parity, the messy middle suggests that businesses now need to be aware of the behavioural science being employed by their rivals.

To take the example of social proof – a bias that had significant impact on choices across all the products we researched – how do your consumer ratings and reviews match up to those of your competitors? Are you utilising positive user feedback about your brand and products in your marketing activity? Likewise, are you building your brand authority by seeking out and promoting expert endorsements and industry awards?

Employing behavioural science responsibly

Economist Richard Thaler has written extensively about "nudges" – small cues that direct people towards positive behavioural change but aren't bribes, and don't prevent them from making an alternative choice if they want to. More recently, Thaler has introduced the notion of "sludge" – behavioural cues that, unlike nudges, don't have the customer or end-user's best interests at heart.[21]

As the name suggests, sludge serves only to obscure and distort the decision-making process, making the middle even messier. It's a foundational principle of everything we do at Google that if you put the user first, all else will follow. So it's safe to say that we're not big fans of sludge, and don't want the findings of our research to be misunderstood or misapplied.

21 Thaler, R. H. (2018). Nudge, not sludge. Science Vol. 361, Issue 6401, pp. 431.

Fortunately, a growing body of guidelines around the use of behavioural science is already in the process of being established. At the category level, there are codes of practice for marketing in financial services, health, and other regulated markets that set out how these kinds of tactics can be used responsibly and sustainably. At the platform level, advertising services such as Google Ads and its counterparts all have terms of use that govern the kinds of claims and tactics that advertisers can implement. Ideally, each brand's own marketing policies should also contain guidance as to how its messaging can make responsible use of behavioural science.

Finally, it's worth remembering that the potential cost of doling out sludge isn't just the burden of additional regulatory oversight. At the heart of this report is the realisation that consumer behaviour is constantly evolving, and that over the past two decades it has started to change faster than ever. Pressure tactics, such as scarcity bias and the power of now, can even edge over from nudge to sludge if applied at the wrong moment or used too regularly. Consumers soon grow wise to the tricks that unscrupulous businesses play on them, and the cost to a brand of having its marketing tactics recognised as sludge could be huge. Once lost, credibility and trust are very hard to regain.

3. Closing the gap between trigger and purchase

The ultimate aim of this approach is to reduce the cognitive burden experienced by consumers as they explore and evaluate your proposition. It is particularly relevant for existing customers, who expect that their familiarity with your products and services should be reflected in a simple, pain-free purchase process. In short, once the shopping trigger has been pulled, the goal is to marshal all your design, usability, and user experience resources to ensure that your ad copy and website don't shoot you in the foot.

After all, not every customer needs to explore and evaluate new brands. If someone has bought from you before and they were satisfied with the experience, they are likely to turn to you again to answer the same need. If you don't place any unexpected impediments or barriers in their way, there is a good chance they'll make a repeat purchase.

So, what might these barriers look like in practice?

- Poor site speed, particularly on mobile.
- Inconsistent or unclear messaging, particularly between ad copy and landing page.
- Inadequate information, such as missing product details.
- User experience issues, such as unclear navigation, pop-ups, and limited payment options.

The cost of getting these basic user experience considerations wrong can be considerable. In a study looking at the importance of mobile speed, we saw that while 95% of users said they would return to a site they perceived as being fast, only 62% said they would revisit a site they perceived as slow.[22] In another study, we saw that a 0.1 second improvement in mobile site speed increased conversion rates by 8.4% for retail sites, and 10.1% for travel sites.[23] Lowering the drag that factors such as speed and design have on interactions with your brand increases cognitive ease, making shoppers less likely to be motivated to dive back into another cycle of exploration and evaluation.

The importance of measurement

While the evidence in our research was based on a simulated environment, the only way to understand the difference that these changes can make to your business is to test them in the wild. And given the difficulty of attributing subtle causal effects to relatively blunt metrics like sales and revenue, we believe that constructing robust, controlled experiments is necessary to understand the impact of behavioural biases on your bottom line.

22 Think With Google (2017). The need for speed: Evaluating the perception and reality of speed on the mobile web. Google. https://www.thinkwithgoogle.com/intl/en-gb/advertising-channels/mobile/need-speed-evaluating-perception-and-reality-speed-mobile-web,
23 Think With Google (2020). How speeding up your mobile site can improve your bottom line. Google. https://www.thinkwithgoogle.com/marketing-resources/experience-design/mobile-page-speed-data/

Measuring advertising effectiveness is a large topic, beyond the scope of this report. Last year our research team published a report that looked at the state of the art and the opportunities for improvement.[24]

The first section examines how controlled experiments and causal inference can be used to increase the accuracy of measured improvements in marketing performance, and contains a number of useful recommendations.

Organisational implications

Over the course of the past year, we've taken our findings out on the road, presenting them at large events and to individual marketing teams. Something we've heard over and over is that many marketers feel our "messy middle" metaphor actually serves as an apt description of the way marketing departments have evolved over time.

Many marketers feel our 'messy middle' metaphor actually serves as an apt description of the way marketing departments have evolved over time.

Before the web it was easier for marketing to own the entire customer experience. But over the past 20 years or so, the sudden rush of information and complexity has led to organisational fragmentation, with different departments owning web, mobile, data operations, and user experience. This was understandable, as launching onto internet street required skills that typical marketing departments of the time didn't possess.

24 Taylor, M. et al. (2019). Measuring Effectiveness: Three Grand Challenges. Google. https://www.thinkwithgoogle.com/intl/en-gb/consumer-insights/measuring-effectiveness-three-grand-challenges

Fast forward to the present day, and marketing has become a lot more technical. Those fragmented responsibilities are starting to be reintegrated into a singular function with ownership of the full customer experience. Our research suggests that this is the right direction of travel, with many of the executions considered by our research requiring cross-functional collaboration to implement.

There's also the question of the traditional separation between branding and performance, developed in the days when television and direct mail were paramount. This too, has mostly been ported directly into the digital age. And while there's still plenty of tactical value in both of these approaches, the exploration and evaluation that takes place in the messy middle straddles many traditional divides. It's now clear that a significant amount of potential could be going untapped, falling into the gaps between silos.

Marketing departments have changed considerably over the past couple of decades. Those that keep the needs of the messy middle in mind as they grow and evolve should find themselves with everything they need to keep pace with whatever consumers do next.

Thriving in the messy middle

The messy middle changes things for marketers but, as we've seen, while consumer behaviour is becoming more complex, many of the approaches needed to address it are still reassuringly familiar. With a better understanding of consumer thinking and a clear set of actions, both challenger and established brands will have the tools they need to win and protect their share of consumer preference.

6 Inhabiting the messy middle

Before we part ways, why don't we take a last walk along internet street? Over the course of this report we've seen how the growth of the web has brought with it abundant choice and limitless information, transforming consumer behaviour in the process.

While examining this transformation, we've identified a new model for how people make decisions online. In our model, the sum total of a shopper's experiences and impressions creates a backdrop of exposure, encompassing brands, products, and more. Against this backdrop, purchase triggers prompt consumers to enter a cycle of exploration and evaluation, gathering information and then narrowing it down. If the first cycle doesn't yield a definite choice, they loop back, repeating as many times as necessary. Finally, all options evaluated, they make a purchase. Or they don't. Either way, the whole experience feeds back into their background exposure.

The messy middle is a complex space for marketers, where customers are won or lost but, from the consumer perspective, people are doing what they've always done.

Sounds complicated, right? And yet, here on internet street it doesn't really feel that way. The messy middle is a complex space for marketers, where customers are won or lost but, from the consumer perspective, people are doing what they've always done – perceiving a need and trying to answer it with a purchase. The fundamental mechanics of shopping may have changed beyond recognition on the web, but we've adapted. Mental modes and behavioural biases that served our early ancestors turn out to be just as useful for cutting through the complexity of shopping on the internet.

For marketers the story is a little different. Branding and performance, traditionally divided in many marketing organisations, actually overlap in the messy middle, but that doesn't mean potential customers aren't falling into a gap. Fortunately, the messy middle itself can be a template for brands to build empowered and integrated marketing organisations, flexible enough to adapt to consumer behaviour now and in the future.

And those marketing teams that set out to tackle the messy middle will hopefully find in our research a valuable set of hints for where to direct their energies:

- Show up at key moments of exploration and evaluation to win or protect your share of consumer preference.
- Apply behavioural biases to give shoppers the information and reassurance they need to exit the messy middle and complete a purchase.
- Optimise site speed, user experience, and onsite messaging to shorten the distance between trigger and purchase.

We've also sounded a gentle note of caution. Behavioural science is a powerful tool, and marketers not using it responsibly could find themselves doing long-lasting damage to the brands they represent. Humans tend to be quite good at remembering grievances, after all.

But what if everyone who reads this report takes our research and applies each of the cognitive biases we've identified? Won't that just create an elevated-but-level playing field, leaving the middle just as messy?

From the consumer perspective, the answer is a definite no. The better brands get at anticipating shoppers' needs for information and guidance, the better customer experience will become overall. Exploration will be more efficient and evaluation will be simpler – the shopping journey will shorten and result in better outcomes and experiences.

Fortunately, for marketers the answer is also likely to be no. In our simulation, each bias was given a basic execution, with no attention lavished on design or copy. In the real world, brands will hopefully take our indicative examples and test them in-market, bringing their own ingenuity and insight to bear.

Ultimately, our research provides not just a framework for decoding decisions and navigating the messy middle, but also a springboard for creativity. Brands that are able to integrate the lessons of behavioural science into their marketing toolset will have everything they need to flourish.

The better brands get at anticipating shoppers' needs for information and guidance, the better customer experience will become overall.

Acknowledgements

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From Google:

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About The Behavioural Architects:

The Behavioural Architects are an award-winning global insight, research, and strategic consultancy. Their work is underpinned by the latest thinking from the behavioural sciences which they leverage to help organisations better understand and influence consumer behaviour. They apply behavioural inspired frameworks and methods to help address key strategic marketing and social challenges.