Guide to Behavioral Market Research

irrational agency

Welcome to the third edition of our guide to behavioral science-based approaches to market research.

Over the last ten years, our industry has seen behavioral economics evolve fast. It started as an exciting idea, was trialed by some brave early clients, and later provoked an avalanche of articles and conference talks. Implicit research tools were developed and adopted more widely - and were eventually accompanied by a proliferation of different labels and subfields. Incorporating behavioral techniques into more traditional research methods, and the field has started to become a mainstream approach.

The 2017 GRIT report declared that 53% of clients and agencies were already using behavioral and nonconscious measures, and 27% were considering them: a total of 80% interested respondents. And by the 2020 report, GRIT found that 3 times more clients using behavioral economics were increasing their research spend than decreasing it. Despite this, there is no official single or unanimous informational resource for behavioral market research and when it is necessary or how to best apply it. We set out to remedy that with this guide.

Let us acknowledge, upfront, that we offer services in this space: so, to some, we might not be considered as an impartial observer. However, this guide was written (as far as our implicit biases allow) from a neutral point of view. We attempted to give objective advice on how to best approach a research problem and included methods and practices that our own company does not offer as services. We welcome your feedback on this guide - whether suggestions for changes, new or additional information to be considered, or questions about topics we have yet to cover. Please email **hello@irrationalagency.com**, and we'll be happy to hear from you.

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Why Behavioral Research?

The first question that comes up for many clients is, "Why should I use behavioral science (or behavioral economics) anyway?" It's a fair point. Well, there are three reasons for this:

It provides a new source of ideas and insights.

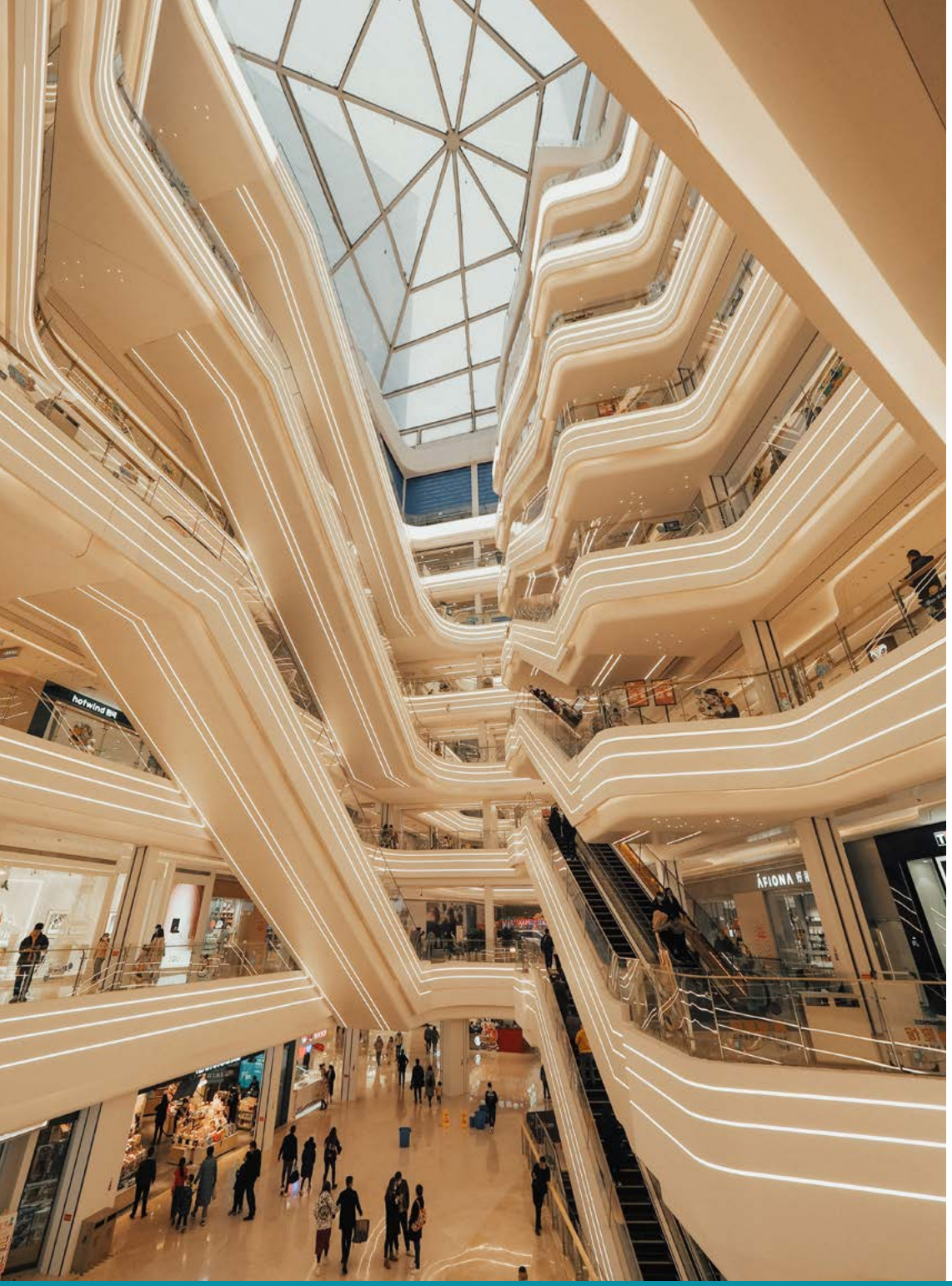
Behavioral science offers new models for research and deep insights into the process of human decision-making. By truly understanding people and their nonconscious thinking, you can discover new and original perspectives on how to solve your business questions.

It provides a more accurate way to test ideas, products, concepts and advertising.

All of the research methods laid out here are based on widely accepted, peer-reviewed, stress-tested scientific approaches. Behavioral science draws from the best of traditional research and goes above and beyond to accurately measure the things that traditional research – and consumers themselves – can't see!

It gives you more authority in communicating research to your organization.

We all have people in our companies who don't really believe in market research- the skeptics can always find a Steve Jobs quote or a missed opinion poll to cast doubt. The (Nobel-prize-endorsed) evidence base of psychological and behavioral science will help you persuade your company nonbelievers that these insights are real.



Typical Research Questions

How can I change stubborn customer behavior?

I have new packs or concepts to test – can I get a more accurate read on their effectiveness than my usual research will give me?

What's the right price point for this product/service?

What "nudges" can I use to influence customer behavior?

How will customer behaviors change in the future?

How can I know what our customers think of a certain trend?

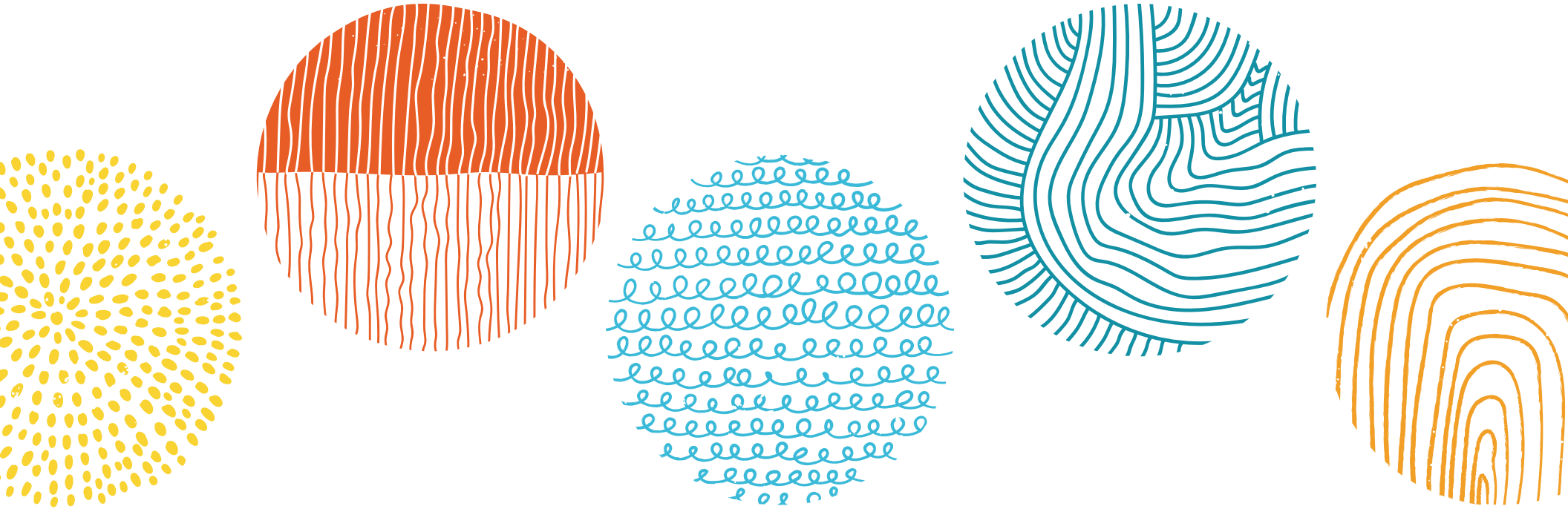
What do customers value most about my product?

What is the impact of this advertising?

How can I update my segmentation/understand drivers of consumption?

Often, behavioral methods look to answer the same questions asked during traditional research – but with an extra layer of insight from nonconscious measurements or with more accurate results. At other times, some particular questions call specifically for a behavioral approach.

While it is important to note that each question calls for different methodologies, it is also imperative to recall that each question might require focusing on a different aspect of the consumer's decision-making process. Therefore, you will often want to choose a specific model of how that process works.



02

Choosing a Model of Decision Making

Behavioral Economics (BE) does not provide just one way or model of thinking – it includes several different types of insight about consumers.

This can make it hard to grasp the subject: is it all about emotions? Or systems 1 and 2? Or is the study about biases and pricing tricks? In reality, BE has something to say about all of these. There is no single approach that all behavioral scientists agree on – they use different models to tackle different problems. While some professionals are working on unifying these into a single set of rules, it's useful to understand the various approaches and choose which works best for you.

In market research, we usually measure one variable to predict another. For example, you could measure purchase intent and use it to predict sales, market share, or profit. Or you could measure the appeal of a TV ad and use it to predict memorability, which in turn predicts how many people will buy the product advertised. In most cases, it's impossible to measure the target variable directly. Instead, we resort to measuring proxies. Sometimes we have a norms database to help us relate the measured variable to the desired outcome, but sometimes we have to simply assume that the measure is a good indicator of the outcome. Behavioral measures are no different – though there is usually some scientific backing to help link the measured variable to the result you want.

The variable you are measuring might be the nonconscious associations of a brand or the impact of a new pack claim on product choice. Using a model of the consumer's decision-making process, you can then draw conclusions about discovered outcomes of interest. Fortunately, behavioral economics and cognitive psychology provide a number of scientifically validated models of decision-making that can help you link what is measurable to the information and insights you really want to know.

To put these models in context, you might compare them to commonly used classical marketing theory models such as AIDA (Awareness-Interest-Desire-Action). This traditional model assumes that people must be aware of a product before they can become interested in it, start to desire it, and finally take action to purchase it. This model provides the rationale behind an advertising process that starts by raising awareness before subsequently communicating reasons to buy and finally creating emotional brand associations.

Using this model, you could measure ad recall to predict awareness - which in turn will predict interest, desire, and action. The AIDA model is superseded by much of the latest behavioral science research, but it is still a good example of how advertising research is often done. The following pages include the five most essential models of behavioral economics. Pick the one that you feel fits your understanding of your consumer best – or ask your agency which model they recommend.

Heuristics and Biases

This approach contains some of the most famous behavioral effects that you might have seen in lectures or books. The basic idea is that people make rational decisions, except when they don't.

"When they don't" refers to how there are two kinds of exceptions to rational thinking. First, people show biases (mistakes in decision making) like the endowment effect or loss aversion. These can make us resistant to change even when it would be in our interest to try something new or trick us into neglecting the long-term consequences of our actions. Second, we use heuristics (mental shortcuts that get things roughly correct) like anchoring and adjustment - a technique that starts from a known value (e.g., the price of milk) and adjusts up or down (e.g., to decide how much to pay for organic milk).

Some researchers have challenged the idea that heuristics and biases are 'mistakes' – but they do let you play interesting tricks on people!

THE POWER OF ANCHORING

If you "prime" people by getting them to write down their birthday before offering a price for a bottle of wine, people born in the second half of the month will pay on average 20% more for the same wine!

Cognitive Constraints Model

This approach starts by recognizing that there are limits on the consumer's brain and its ability to make decisions.

It is related to the idea of "bounded rationality" proposed by early decision theorist Herbert Simon in the 1950s. The constraints include:

- **Ability to pay attention:** ads or packs with cut-through will gain disproportionate success.
- **Ability to calculate:** people won't make consistent or rational decisions about prices, especially when adding up a number of items in a basket.
- **Myopia:** consumers are focused on their current feelings and put less weight on the long-term consequences of their decisions.

Even though your consumers are probably intelligent, savvy people, they are also very busy, and they must make decisions about your category quickly and with limited data. This model prompts research methods that help both to identify the constraints that limit your consumers, and work out how to bypass those constraints and help them decide to buy your product.

System 1/2/3 Model

This model identifies three distinct ways of making decisions, and provides a way to understand which of the three will dominate in any given circumstance.

When using System 1/2/3 as your model, you must first decide which system is most applicable to your category or product (there are research methods to help you find this out). You can then choose the right tools: System 1 tools include emotion testing; System 2 tools are closer to traditional research methods; System 3 tools include immersive implicit reaction tools, projective qual and narrative research.

VERSATILE MACHINERY

System 3 tells us that the same brain mechanisms are used for planning the future, remembering the past, exercising self-control, following the narrative in a book or film, and empathizing with other people.

System 1 decisions are the automatic, 'gut reactions' that provide instant decisions. They are often used to buy habitual products (milk, bread) and to make emotional judgments about brands or claims. Whenever you don't think but only react, System 1 is responsible.

A **System 2 decision** is a careful, calculated, cost-benefit analysis. When you get out the pen and paper or the spreadsheet and work out how much that loan will cost you over the next 5 years, or which airline ticket will be best (taking into account travel to the airport, time of arrival, comfort), you're using System 2.

System 3, a recently discovered addition to the model, works from your imagination. If you choose a new car by imagining what it will feel like to drive it, how it will look in front of your house, how other people will react to it, and whether it will make you happy, you're using System 3. It is often used to think about new products, one-off purchases, or make difficult tradeoffs between different options.

Emotions and Reasoning

Although emotions are sometimes seen as a disruptive or distracting force, "affect" (as psychologists call it) can be a useful guide to navigating everyday decision making.

One way for emotions to influence decision making is when feelings act as information about:

- **Whether something is desirable or not**
  (How do I feel about it?)
- **Our preferences**
  (How strongly do I feel about it?)
- **Perceived risk**
  (How scary does it feel?)
- **Our confidence**
  (How certain do I feel about it?)
- **Situational demands**
  (How serious does it feel?)
- **Our goals and priorities**
  (What do I like doing? What would I feel better about?)

For example, when we are happy we tend to rely more on mental shortcuts whereas when we are sad, we engage in more deliberate, calculated thought processes. In other words, happiness creates a sense of certainty which helps us accept what we see without much thought while sadness creates a feeling of uncertainty and a need to scrutinize what we see.

There are many different things we call 'emotions', which can make them tricky to define.

Words like mood, emotion and feeling are also known as affective states, and often used interchangeably even though they are distinct psychological concepts. Affective states can be defined by:

- **Are they positive or negative?** *(Valence)*
- **How activated is our sympathetic nervous system?** *(Arousal)*
- **How strong is our urge to act on it?** *(Motivational intensity)*

Understanding each of these in the context of consumer behavior helps us predict how someone might feel, and how likely they are to take action (e.g. buy a certain product).

Cross-Cultural Decision Making

Three sets of factors influence every decision we make:

1. **Features of the decision we're making**
   (e.g. choice architecture of the options we are choosing from)

2. **Elements of the situation we are in**
   (e.g. time pressure, social context or high cognitive load)

3. **Our personal characteristics**
   (e.g. age, gender, personality traits, social class as well as the cultural and societal context we grew up in)

The first two have had most of the popular attention in behavioral economics, but individual factors and culture are now being recognized as equally important.

Many aspects of human behavior are to some extent universal, but our cultural context has a significant impact on our behavior. It influences what matters to us the most, how we trade off different values, how much we care about the opinions of others, and how we communicate.

Most scientific research on decision making has been conducted in Western countries and especially in the US – in other words, with Western, Educated people from Industrialized, Rich and Democratic (WEIRD) countries. However, there are significant differences in many psychological domains between WEIRD and non-WEIRD countries.

Major differences include the US as an "individualistic" country while many Asian markets are more "collectivist"; some countries (e.g. France) are more hierarchical than others or have a stronger masculine-feminine distinction; and some (Germany) are more long-term oriented than others (the UK).

Cultural context acts as a "volume control" for different aspects of behavior – turning up the volume in some contexts and down in others. It moderates how we process information by filtering what we pay attention to, as well as how and what we choose to communicate to others.

Each culture is a complex web of dimensions, and there is much we still don't know about decision making in different contexts – even within countries people can differ, for example, based on their social class. Recent research suggests that we need to consider these individual characteristics more seriously – in some cases, original findings have even been reversed when the research was repeated with people from lower socio-economic class.

Where behavioral insights are the final mile, understanding cross-cultural sensitivities are the final few meters.

> *The biggest challenge for our field in the next 10 years is to understand the generality of the findings we have. We have assumed for a long time that our findings just carry over in different contexts and different occasions. As we get access to more people and more cultures, we'll need a more nuanced understanding of our theories and adjust them based on other intervening factors that might come from culture for example.*
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Tools and Methodologies

There are many different types of behavioral research in use today, with more being developed all the time. On the next few pages we'll give you an overview of some of these methods; what they are and how to use them. You'll learn about techniques like using timers, measuring reaction times, adaptive choice scenarios, neurophysiology and implicit associations.

You'll also read about how to measure system 3 and understand your customers' imaginations. All are designed to tap into the consumer's natural, more automatic decision-making process and improve the quality and usability of research.

Implicit Reaction Time (IRT)

Typical research questions: Pack tests, claims tests, brand attributes, attitudinal banks

Cost and effort: Low

The most common type of behavioral research today is probably IRT (short for Implicit Reaction Time) measurement. These tools present a participant with a question, a choice between images or words and a timer. They are given a few seconds to respond, and the system records both their choice and how long it took. If they answer quickly (2-4 seconds) the system assigns a high "intuitiveness score" or "certainty index". A slow answer (5-10 seconds) indicates that they took time to think about it, which indicates either a lack of certainty, or that they needed to engage 'System 2' thinking and rationally consider their options. Different companies offer several variations on these tools:

- A **'go/no-go' tool** (answer yes or no to each stimulus)
- A **brand attribute version** (for each stimulus, choose which of two brands fits it best)
- A **pairwise choice version** (on each screen, choose which of two new stimuli you prefer)
- **The Implicit Association Test (IAT)**, which has a more complex mechanism, and produces highly reliable results but takes much more interview time and can only test a limited number of stimuli
- The affect misattribution technique, which interleaves stimuli with ambiguous images, and interprets participants' responses to an image as being influenced by the stimulus shown immediately before it.

Each of these has pros and cons (usually a tradeoff between interview time, sample size – and therefore cost – and accuracy of measurement). Some researchers draw a distinction between "fast explicit" and "true implicit" measures, but these techniques broadly work in a similar way.

Choosing the right implicit method for your question is one issue. Another important factor in choosing stimuli that are suitable for implicit tools. For example, in a claims test, if one claim is much longer than the others, it will be harder for participants to read it in the time available. It is therefore likely to score lower. This might be exactly the right result: a longer claim often will have a lower impact in a real-world situation such as a busy supermarket shelf. But in other circumstances this might be an unwanted bias. Talk to your agency about how they choose and format the stimuli for implicit tools.

Qualitative techniques

Typical research questions: Understanding existing behaviors, customer personas, concept testing

Cost and effort: Medium

Much of the tradition of qualitative research already incorporates ideas from psychology, but new discoveries in behavioral science can strengthen this. Clinical psychology provides one source of methods including psychotherapeutic approaches which have been adapted for commercial use. Ethical care is needed, but a trained interviewer can get a lot of non-conscious insight using these techniques.

Forensic/criminal psychology offers another inspiration: cognitive interviews. This technique is designed to recreate memories of a crime scene accurately – and it can also get to the truth about respondents' breakfast habits or shopping routines as well!

Additional techniques can be layered into in-depth interviews – for instance verbal protocols, where the words used by respondents inadvertently reveal their process of thinking or decision making. The psychology literature is also a good source of innovative projective techniques, which can help respondents to imagine the future, predict other people's behaviors or think about hypothetical situations in more accurate ways.

A key theme in behavioral science is that context matters. People make different decisions in a shop or restaurant than in a viewing facility. So consider holding at least some of your interviews in the real decision environment, even if that means online interviews in the home.

One traditional technique that behavioral science casts doubt on is the much-loved focus group! Solomon Asch's psychology experiments demonstrated that ***groupthink and peer pressure can lead people to give plainly inaccurate answers even to simple, objective questions.*** *So the insights of behavioral science can be powerful in making sure your groups are not misleading.*

Scientific Literature Reviews

Typical research questions: General strategy questions setting baseline for other research

Cost and effort: Low

Why pay for all your own research when you can get a ton of it for free?

The scientific literature on behavior and psychology contains hundreds of thousands of person-years of work by the world's leading experts in how people think, feel and decide. And all of it is out there for anyone to read – unlike most commercial research, which is kept private by the clients who commission it. You can benefit from the investment that the world's universities have made in gathering insights and evidence.

A scientific literature review gives you a great head start in your own research project. You can often find that scientists have tackled some of the exact questions you want to answer, and you can save time and resources by building on their answers instead of reinventing the wheel.

A lot of the existing research will be about general principles of decision making rather than directly applicable to your category, but a good analyst will be able to show how each piece of research applies to your type of consumer or your products. Often the scientific literature will also help you identify the best research methods to use in your own project – sometimes the literature review is a pilot which sets the scene for commissioning primary research.

The literature is deep and typically written in an 'academic' style, so choose an agency that is experienced at reading this literature and translating it into business-friendly insights that your stakeholders can easily absorb. Ask for examples of outputs – there is a skill to distilling hundreds of journal papers into 5 informative but readable slides.

Behavioral Conjoint

Typical research questions: pricing research, product design, range tests, driver analysis

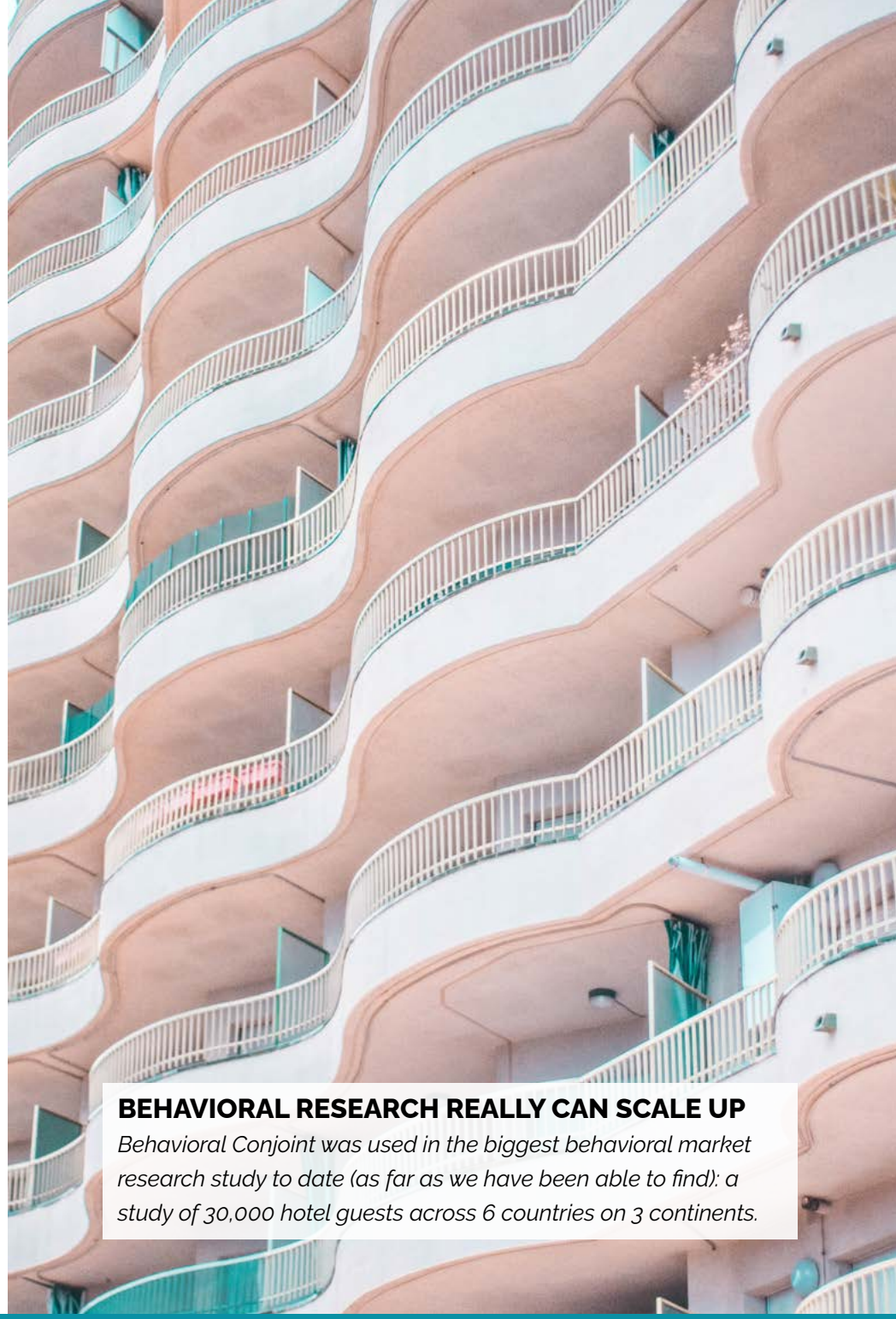
Cost and effort: Medium

Like traditional conjoint – but behavioral!

Behavioral conjoint can tackle the same kind of highly detailed, quantitative questions as traditional conjoint. It takes a similar analysis and design approach – choose a set of product features that you want to test, and specify the value each one can take (including price levels) – but adds a few specific dimensions to measure the non-conscious aspects of the decision:

- Time pressure
- Reaction time measurement
- Response to discounts and promotions
- Pricing heuristics (e.g. 99c pricing, Goldilocks effect)
- Other choice architecture techniques
- Priming and immersive experiences
- Variable numbers of stimuli, such as a 6- or 8-way shelf choice including competitor products
- Adaptive algorithm [where appropriate]

It can also use a distinctive stochastic analysis approach which provides more flexibility than traditional conjoint designs, and allows more features and attributes to be measured for a given sample size. The exact design of a behavioral conjoint project is just as important as the software tool, so it's worth allowing a little extra time in your project to get this right. For more detail on this approach, see "Making Conjoint Behavioral" by Leigh Caldwell, one of the authors of this guide.



BEHAVIORAL RESEARCH REALLY CAN SCALE UP

Behavioral Conjoint was used in the biggest behavioral market research study to date (as far as we have been able to find): a study of 30,000 hotel guests across 6 countries on 3 continents.

Emotion Measurement

Typical research questions: Media testing, advertising research, UX design, pack testing

Cost and effort: Medium to high

The best research method depends on whether you want to measure affect, emotion or mood:

- **Affect** is an automatic response that something is good or bad
- **Emotion** is a conscious evaluative reaction to an event
- **Mood** is a feeling state that is not clearly linked to some event

Much of emotion measurement is based on the premise that emotions have reliable and detectable physical signals (facial expressions, bodily reactions). However, recent analysis of 200+ research studies (Siegel, Barret et al 2018) has challenged this, finding that bodily responses such as heart rate, respiration, and blood pressure fluctuate significantly across emotion categories even for a single person. In short, there is not a single physiological fingerprint for each emotion. Emotional expressions also vary widely across cultures. These findings might pose challenges to some common emotional measurement methods.

Methods to measure emotions are as varied as the emotions themselves. The explicit end of the spectrum includes visual and verbal self-report measures such as product-emotion measurement with cartoon-like illustrations or PANAS scales – these risk measuring the emotions consumers think they should have, rather than the emotion they really feel. More implicit measures include IAT, psychophysiological approaches measuring bodily reactions and facial expression analysis/facial coding.

Facial expression analysis can be conducted in three different ways:

- **Facial electromyography (fEMG)** tracks facial muscle activity, independent of language or memory. It requires electrodes, cables, and amplifiers which limits its use to some extent.
- **Manual observation and coding**, often based on the work of Paul Ekman and his colleagues on seven basic emotions (Facial Action Coding System)
- **Automatic facial expression analysis** using algorithms that detect facial landmarks and code them automatically

Some approaches use self-report measures by showing consumers facial expressions and asking them to select ones that reflect how they feel. Each of these methods comes with specific benefits and limitations – ask your agency to explain the method in detail.

Neurophysiology (EEG, fMRI, GSR)

Typical research questions: Advertising evaluations, pre-launch testing of high-stakes products and concepts

Cost and effort: High ●●●●●

For many people, mention behavioral or non-conscious research and the first thing that comes to mind is brain scanning. There are a range of techniques for directly measuring brain activity, originally based on work in neuroscience research and adapted for commercial use.

The most common is EEG (electroencephalogram) – usually in the form of a set of electrodes which sit on top of the head and measure electric fields in the brain. It can't generally tell between activation of different brain areas, but can reliably tell whether someone is more engaged in a task. It might be used to test a TV ad, and determine the high and low points of the viewer's attention.

fMRI (functional magnetic resonance imaging) is a more expensive technique that requires participants to remove all metal objects, lie down and be placed into a brain scanning machine. This can 'see' directly inside the subject's head, and works by measuring blood flow in different parts of the brain. It can identify whether specific regions associated with emotion, memory, facial recognition, speech, cognitive effort, and other processes are active. It can be used to see whether a stimulus evokes a particular kind of thinking or imagination.

GSR (galvanic skin response) uses simpler equipment, usually a device attached to the finger to measure conductivity (which indicates how much the participant is sweating, an indication of how excited or stressed they are). It is easier and lower cost than the other methods but produces only a limited output. It can, however, be more portable than the other methods so could be used for example while your consumer is wandering around a store.

All neurophysiological methods tend to be expensive, because they require specialist equipment and trained engineers, and the participants have to be physically present. Most projects are limited to 50-100 respondents, but even for this size of sample you may need to budget around the six figure mark for fieldwork costs.

System 3: Imagination/ Prospection Methods

Typical research questions: Predicting trends and forecasting
Cost and effort: Medium

If using the System 1/2/3 model, there's a good chance you'll need to measure System 3 thinking: consumer decisions based on an imagined future. Some specific tools have been designed to do this.

The prospective concept test presents concepts monadically to participants, then asks them to describe their anticipated future, including the place of the product or concept in that future. They evaluate the concept only after finishing this description.

Other methods measure the consumer's causal model: the set of beliefs they hold about what events and products lead to the biggest benefits and rewards. Implicit tools (IRT or association tools) are used to identify the individual beliefs, and a System 3 analysis is used to assemble them into a full understanding of how the consumer views the world. This provides a map of the gaps and niches where a new product could slot in and quickly gain traction. Projective qualitative techniques can also be used to measure future thinking, helping to understand the opportunities to delight customers and commit them to your brands.

And a major emerging methodology is narrative research, in which researchers listen to consumers telling stories. This "storyhearing" technique allows you to learn how consumers view the world, their beliefs about causality and how they see your product category, by giving them space to open up and be more vulnerable in their answers. These stories can be analysed at quantitative scale, producing visual maps and narratives to guide your strategy and how you interact with your customers.

Associative methods (IAT, Association Explorer)

Typical research questions: Understand brand/category associations
Cost and effort: Low to medium

The IAT (Implicit Association Test) is the grandparent of all implicit research techniques. Developed by academic researchers Greenwald, McGhee and Schwartz in 1998, it has most famously been used to measure subjects' implicit associations with race or gender characteristics, for instance to understand potential bias in recruitment or law enforcement.

(Go to implicit.harvard.edu to try it out for yourself.)

It has been adapted for brands, and you can use it to reliably measure whether a specific word or concept is associated with your brand versus a competitor. For instance, is Coke or Pepsi more associated with 'refreshing'? The drawback: it takes about 5 minutes of interview time to answer this question. If you measure 3 or 4 attributes, you run out of survey time.

To measure a higher number of associations and provide a more practically useful output, some newer tools have been developed. Association Explorer creates an associative map using semi-implicit responses, while the indirect measures of an affect misattribution tool can do something similar. This is another case where the specifics of your question will determine which tool works best. Ask your agency for advice.

Indirect measures (implicit driver analysis, AMP)

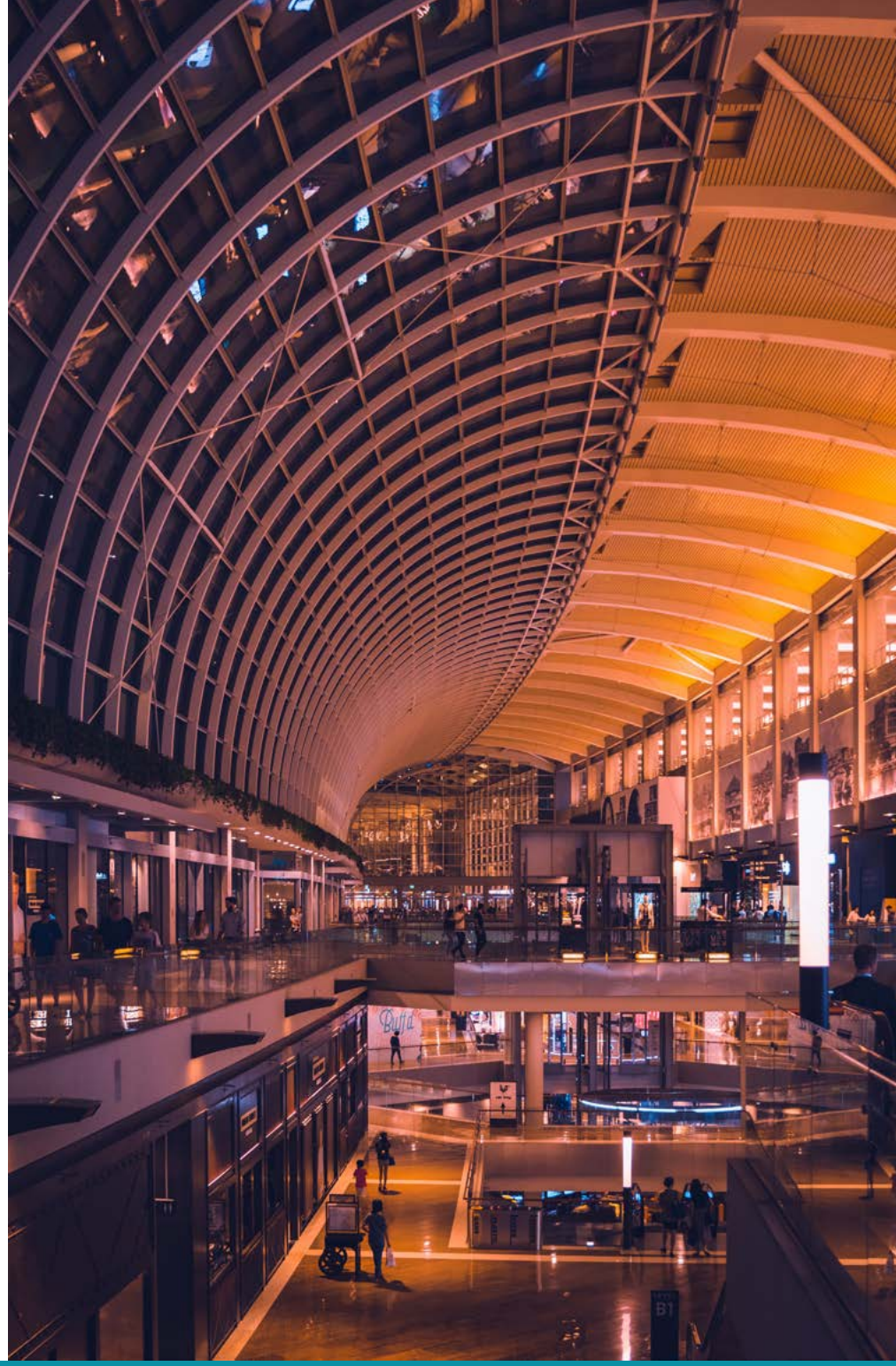
Typical research questions: Consumption drivers, brand associations
Cost and effort: Medium

In an ideal world, all measurement would be indirect. Scientific experiments involve modifying one variable and observing how behavior changes as a result. If we could do this with our consumers, we would always get accurate data and wouldn't need to worry about the accuracy of self-report.

While we can't always do this, there are some methods that allow for it. Instead of asking participants how a stimulus would influence them, we can show them the stimulus and then measure what they do afterwards. One way of doing this is the **affect misattribution procedure**, described under Implicit Reaction Time earlier.

A second way is **implicit driver analysis**, a choice-based method that "primes" people with a motivation or driver before measuring what they choose in a conjoint-like task. If their choice patterns are different after exposure to the driver, than they were before, we can infer that the driver has an influence on their choice. Exposure to the same driver in a real shopping situation is likely to have a similar effect.

This method works particularly well in understanding what influences behavior in different consumption occasions. The strength of this method is that it removes the problem of overclaiming: it doesn't matter whether consumers consistently overestimate their likelihood of buying a new product. It is only a question of whether that likelihood is higher with one driver than another.



Behavioral Experiments (Nudges and A/B testing)

Typical research questions: Validation of new product, packaging or nudge

Cost and effort: High (full RCT)/Medium (simulated RCT)

For many people, experiments and A/B tests are the first thing they think of when someone mentions behavioral testing. These are widely used in the public sector and social research (for example by the UK government's behavioral Insights Team or "Nudge Unit").

The best known kind of experiment is the RCT or randomized controlled trial. In these experiments, a population of customers or citizens are divided into two groups. On one group, a new behavioral approach or nudge is tested. The other group has everything kept as it is. This provides a robust, accurate test of whether the new approach works.

The big problems? Time, cost and – sometimes – regulation. Trying something across your real population of customers or citizens can be very expensive. Depending on your category, you might need compliance approval to make changes like this, and it can be controversial. Digital A/B tests are much easier and cheaper, so this approach is often used in e-commerce.

An emerging solution is the quasi-experiment or "simulated RCT" – where the decision scenario is recreated in an online test, and a representative sample is recruited from a panel. This approach can be especially effective in pharmaceuticals and finance (highly regulated environments where real-world testing can add months of delay). It is also useful in categories such as FMCG and retail where the simulated approach brings big budget savings.

Virtual & Augmented Reality

Typical research questions: Pack tests, store design, customer experience research

Cost and effort: High ●●●●●

One of the consistent discoveries in behavioral science is that context matters. You may make one decision at home (healthy meals), but another one when you're in the shop (ice cream!) And put me in a viewing facility... my mindset could change altogether.

Virtual reality research is intended to put the participant right into the context where they make their decision. You could replicate a store layout with real products on shelves, or a billboard on the side of a road. It should be possible to eliminate most visual stimuli.

In good VR, a psychological 'immersion' takes place which can allow participants to experience a very different world to the one they are in. For social research this could be invaluable – one well-known study placed subjects in VR as a person of a different race or gender. It's not possible to give someone the whole historical lived experience that goes with that, but at least it can give a flavor of what daily life might be like.

Augmented reality achieves a similar goal but instead of creating a whole new environment, it superimposes new or changed details on top of the real space the customer is within. For example, IKEA has developed an AR app which lets people see what a new piece of furniture would look like in their living room. This approach is more limited but more cost-effective and requires less specialist equipment.

The two major challenges for VR in market research are cost and access to equipment. Even though cheap VR headsets like Google Cardboard are becoming more accessible and VR smartphone apps are proliferating, the number of consumers familiar with VR is still relatively small which poses some challenges for research.

At this stage, most research will still require more complex project logistics such as recruiting to a central location, limiting the scale and scope of what you can test. Although these constraints are changing with the release of new headsets, use of 360° video and the emergence of the first VR consumer panels, it is still early days for this method.

Integrating multiple methods

Typical research questions: Most questions, especially larger strategic ones

Cost and effort: High ●●●●●

Each of the research methods shown here answers quite a specific question. It might be "which claim performs best", "what is the optimal price point" or "what words are associated with my brand". But most marketing questions are broader than this. You might want to know your range strategy for the next 3 years, or which messaging is best to target each customer segment.

To answer these questions you probably need multiple methods. You may also include traditional, non-behavioral research in the mix. How then do you integrate the results of diverse methods? This goes back to the choice of decision making model from earlier in the guide.

The decision making model you choose should ultimately provide a complete picture of your consumer. Each research method can fill in a piece of the jigsaw. You might not fill them all in at the same time, but each new discovery (especially of nonconscious insights) can build on what came before.

There's an old story of a group of blindfolded people trying to identify an object they had found. "It's a spear!" said one. "No, a wall," said another. "It's definitely a rope," said the third. "A tree," insisted the fourth. Eventually the elephant got fed up and trampled them all to death. You need to get multiple perspectives to understand the whole elephant. And you need to build a single model of your consumer so you can meaningfully integrate your separate research results.

04

How to Interpret the Output of Your Methods

Behavioral methods provide two kinds of insight:

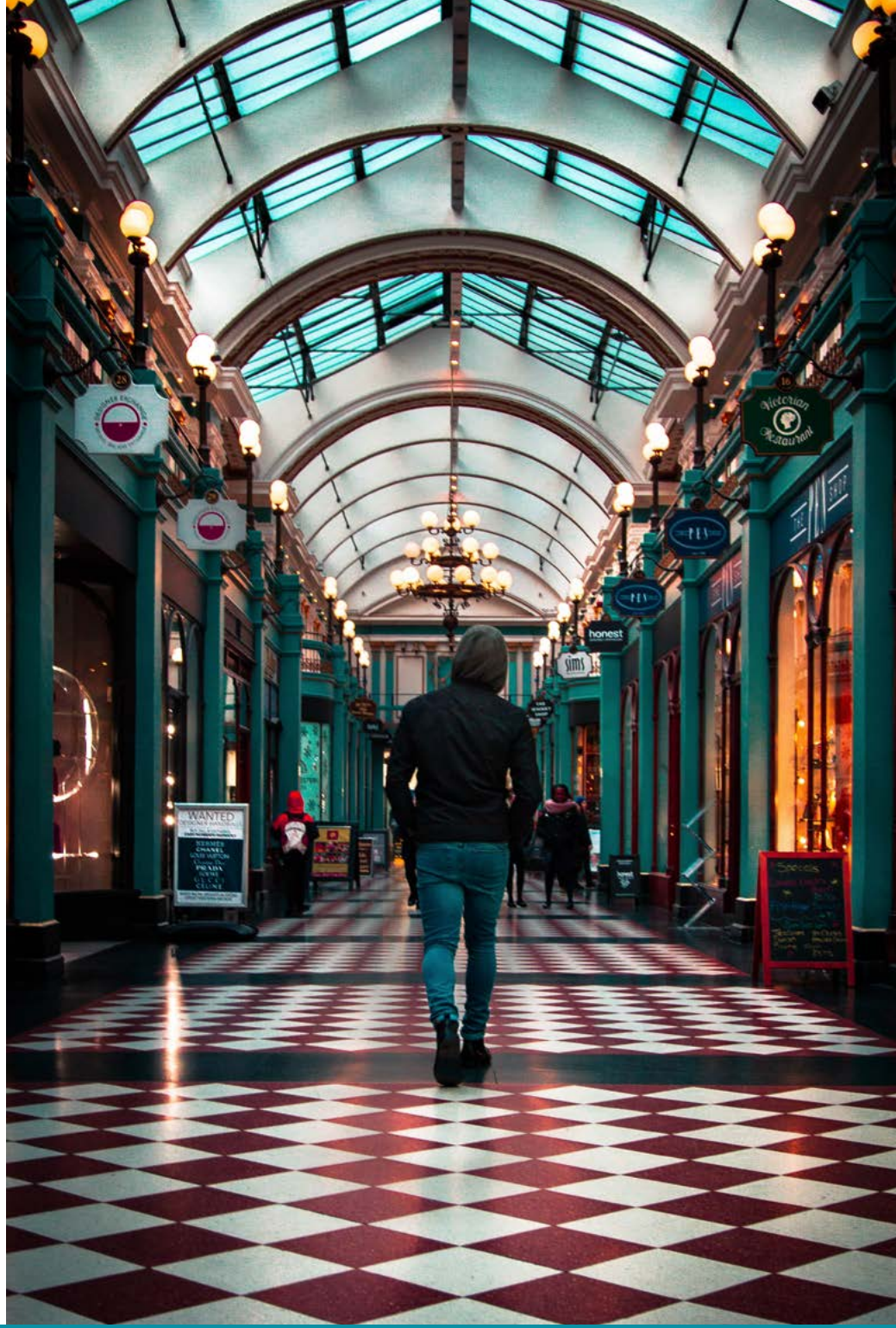
1. Direct relationship between a stimulus, and a behavior

2. Broader information about how people make decisions

The first kind of insight is easy to apply: if you have discovered that making your packaging red increases sales by 20%, go ahead and make it red! But only some kinds of method (Experimental/Quasi-experimental, and behavioral Conjoint) can usually give you such a clear answer.

The second class of insights is more complex but also more powerful – because it helps you go beyond a single business question. If you are using one of the decision making models from earlier in the booklet, your research outputs will help fill in some of the empty spaces in that model. For example, if you are using the Heuristics and Biases model, the research could tell you how strong the consumer's specific biases are. Or if you are using a System 1/2/3 model, your research could fill in important parts of the consumer's mental model that governs their System 3 thinking.

Over time, across different research projects, you should be able to build a comprehensive picture of your consumer and how they make choices. When your stakeholders have new questions, you may be able to answer some of them instantly using this picture. It can also guide your future research projects, because you'll know where the gaps are and what you need to find out next.



05

Principles of Behavioral Research

Whatever methods you use, there are a few universal principles to keep in mind when doing behavioral market research.

1. **There's a tradeoff between precision and breadth.** You can get a very accurate measurement of a narrow question (for example "how modern is my brand perceived to be"), or an approximate answer to a broad question (e.g. "what motivates shoppers in my category"), but not both at the same time.

2. **Multiple methods provide better perspective.** A single method can only measure one aspect of decision making. To get a better picture of your consumer, two or three methods offer a lot more.

3. **The science is usually more nuanced than it seems at first.** Behavioral science is great at uncovering the complexity of human decision making, but that very complexity can introduce doubts and caveats. This is OK. Traditional research hides things that matter – we don't have to.

4. **You can still simplify the outputs.** It's OK to simplify things after you've decided which nuances aren't important.

5. **Keep your model in mind.** As long as you keep focused on your model of how consumers think, you'll have a clear idea of how to research it.

6. **Traditional research oversimplifies – that's why it can seem easier.** Sometimes you need a quick, simple answer, and you might need to use a traditional survey approach. But please make your stakeholders aware of the compromises that were involved.

06

How to Learn More

There are plenty of books about behavioral science but not many about behavioral research.

We suggest you start by reading these easier entry books:

- *Thinking Fast and Slow,* Daniel Kahneman
- *The Biased Mind: How Evolution Shaped our Psychology,* Boutang & De Lara
- *Gut Feelings: Shortcuts to Better Decision Making,* Gerd Gigerenzer
- *The Last Mile: Creating Social and Economic Value from Behavioral Insights,* Dilip Soman

There are plenty more on specific topics:

- *The Business of Choice*, Matthew Willcox (strategy and communications)
- *The Choice Factory,* Richard Shotton (particularly relevant to advertising)
- *The Psychology of Price,* Leigh Caldwell (for pricing)
- *The Psychology of Design, Society for Consumer Psychology* handbook series

And if you're ready for a more advanced approach:

- *A Course in Behavioral Economics,* Eric Angner
- *Exotic Preferences,* George Loewenstein
- *Modelling Bounded Rationality,* Ariel Rubinstein

An interesting book to see how psychologists approach some of the techniques that market researchers use daily is *Advanced Methods for Conducting Online Behavioral Research*, by Samuel Gosling and John Johnson. However, 'advanced' is a relative term – this was in 2010.

New scientific discoveries are found in the journal of the Society for Judgement and Decision Making, and other journals such as *Decision*, *Journal of Consumer Research* and *Journal of Consumer Psychology.*

irrational agency

Consumers today are telling new stories that are not being heard by traditional research. Stories about who they are, what they want from the world, and how they see their future. Brands that want to speak and sell to these consumers need a new approach.

Irrational Agency, provider of behavioral insights and data, has developed a unique set of narrative research tools to capture these stories. We've learned about sustainability, memory, wellbeing, and value – and the role of brands in these conversations.

Our tools, like System 3, Behavioral Conjoint and Therapeutic Interviews, offer the rich empathy of qual at the scale and speed of quant. PepsiCo, Vodafone, IHG, Sanofi and Coca-Cola use the hidden stories we've found to design ads, develop products and give their customers a better experience of life.