

The Real Why and the Hidden Who

Fixing the weak links in how we measure personality to make better use of behavioural science in marketing

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Abstract

Marketers, communicators and behaviour-change strategists have lacked a powerful set of tools to boost effectiveness. They have depended on research, to be sure, but that research has been as blunt as a chisel when a proton beam is what is called for. Through a multi-year collaboration, Ogilvy and Kantar have created, tested and deployed a completely new instrument that more effectively decodes individuals at scale, using a series of proven behavioural science “lenses” that had never before been pulled together into one comprehensive instrument. Together, these lenses decode personality traits, cultural cognition¹ and cognitive styles to reveal “the real why and the hidden who” aspects of individuals that truly serve as the drivers of and barriers to behaviour change. With the practical application of this instrument and its findings, we can now reinvent personas, segmentation and inform a better, more empathetically resonant crafting of message framing and content. Just as advances have led to personalised medicine (i.e. treating individuals based on their own genome), this approach offers a novel, empathetic and much more effective way to move individuals at scale.

Introduction

Strategists, communicators and marketers depend on research to give them insights that can be used to affect a better outcome. Despite the thousands, if not millions, of hours spent on constructing award-winning ads we are still a long way off from developing advertising communication strategies that can drive real behavioural change at scale; i.e. see an end to obesity or convince everyone to stop smoking, encourage widespread engagement on climate change action, more complete uptake on vaccinations, secure retirement savings as well as engage employees. Often these are highly complex problems and what it takes to persuade one person will be different to what it takes to change the behaviour of another. Traditional approaches have either sought a killer campaign or segmented by demographics and stated preferences. Both are the equivalent of using a blunt chisel to do brain surgery when a photon beam is now available.

What holds back the effective delivery of so much advertising, communication and marketing strategies is an accurate read on what drives preferences, choices and behaviour among sub-segments of audiences, consumers or patients. To understand this relies upon having effective ways of measuring and mapping out how individuals really think (as opposed to what they say), how their hidden personality traits, identities and world-views filter everything they take in, as well as how their individual mind-sets and cognitive styles nudge and guide how they make sense of the world. As David Ogilvy once reportedly quipped (no doubt in frustration): “Consumers don’t think how they feel. They don’t say what they think and they don’t do what they say”

We know from the work of neuroscientists such as Antonio Damasio (1999) that most human decisions are strongly influenced by the emotional governors in the brain rather than reason. Damasio (with Berchara) proclaimed: “We are not thinking machines. We are feeling machines that think”. We know from the Nobel Prize winning work of Daniel Kahneman and the behavioural economics field he co-founded, that human decision-making is guided by an array of cognitive biases and heuristics below our conscious level and making our species seem *Predictably Irrational* as the behavioural scientist

¹ https://en.wikipedia.org/wiki/Cultural_cognition

Dan Ariely has written. The behavioural scientist professor and author Jonathan Haidt in his book *The Righteous Mind* summed up the relationship between emotion and reason in the brain as one of unequal partners; one calls the shots behind the scenes while the other trots out an explanation. “Reason is the press secretary to the emotions,” says Haidt (2012: page 84).

All of which is to say Ogilvy was essentially right and we cannot really trust what people tell us about their own reasons for preferences, choices and behaviour. Using real behaviour (such as “digital breadcrumbs”) can be helpful, but it looks backwards and may be context specific. Meanwhile, behavioural science points to the ineffectiveness of all logical and rational plans to change behaviour.

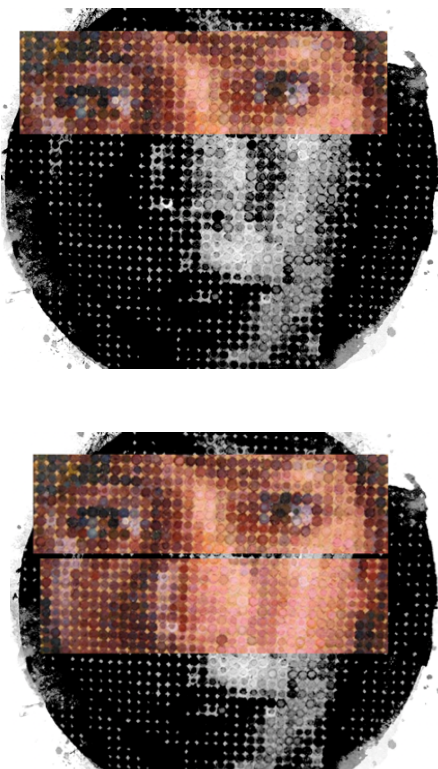
The big challenge: We needed to decode humans better at two levels: as a species and as individuals (at scale), leveraging behavioural science findings beyond the “nudge”.

So, what is a better way to decode humans?

While the cognitive biases delineated by behavioural economists rule our whole species in general, our specific behaviours, individual choices and preferences are mediated by our individual makeup.

This paper tells the story of our attempts to develop a more robust multi-dimensional personality and cognitive decision-making style measurement tool to provide a clearer picture of human decision-making. We wanted a test that could combine the three core established behavioural science “lenses” used to view the human condition: personality, cultural cognition (outlook on the world) and cognitive thinking styles.

Three lenses to reveal them all



Personality Trait Science (Big five, Five Factor, NEO)

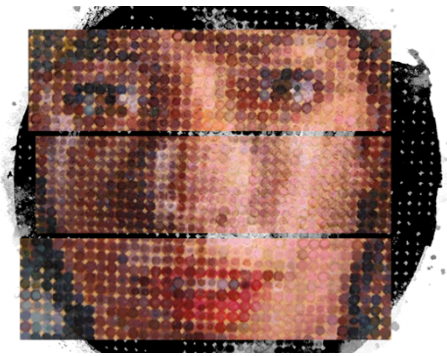
For nearly three decades, a wide and deep body of research has duplicated and confirmed personality trait factors as tightly correlated to preferences and behaviour in many realms: from financial, to health and wellness, to environmental, risk propensity, to entrepreneurial success, sales success, management and leadership effectiveness, to consumer affinities (or dislikes) of shopping, to travel - and many more. An individual’s personality is roughly half heritable and remains pretty fixed from young adulthood. Knowing how certain personality trait profiles tend to respond can help communicators and marketers better resonate with sub-segments (see Graves and Matz, 2018).

Cultural Cognition

Initiated by the *Cultural Cognition Project* at Yale University led by Dan Kahan in the United States, *Cultural Cognition* evolves earlier theories such as the *Cultural Theory* (Grid-Group). It maps people on a grid and reveals their inherent world-view. From that world-view flow, many ramifications flow.

Fig 1 WORLDVIEWS (Cultural Cognition)





Cognitive Styles

This is a basket of tests used individually by the scientific community. Each reveals proclivities and can predict preferences and behaviour summarised in table 1.

Table 1

Regulatory focus ²	Promotion vs. prevention mind-set
Locus of control ³	External vs. internal
Time perspective ⁴	More past, present or future minded?
Self-efficacy ⁵	Do you believe you can succeed?
Need for affect ⁶	Prefers emotion and visual narratives
Need for cognition ⁷	Likes analysis, probing
Hedonic vs. utilitarian ⁸	Consumer motivations

In a multi-year collaboration, Ogilvy and Kantar have created a comprehensive new research tool to do just that, using three lenses crafted from deep silos in behavioural science studies.

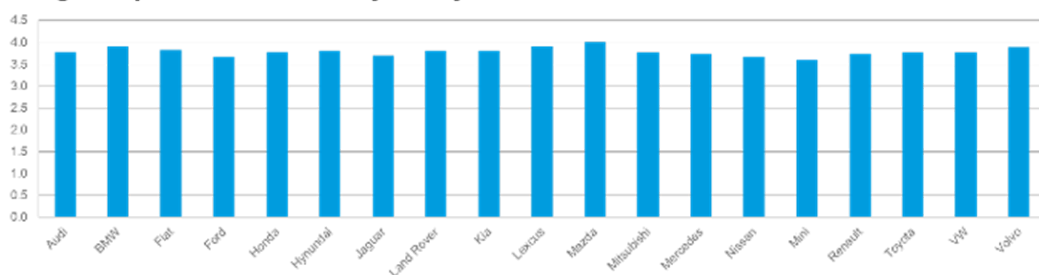
Where it all started: The problems encountered using classical personality measurement methods for commercial research

Two years ago, Ogilvy approached Kantar with the idea to try map out the personality and cognitive thinking styles of the Kantar panellists, to enable Ogilvy to perform more effective cognitive segmentation work. In light of the Cambridge Analytica scandal, they wanted to ensure that this work was undertaken within the clear ethical boundaries established by the market research industry. Our initial approach was to take a range of well-established classical personality tests and field them to our panels. We did this on quite a large scale: for example, 20,000+ people from around the world were profiled with the standard *OCEAN Big 5 Personality test*⁹. However, as we began to try to use these tests in real-life commercial research projects, we started to encounter challenges.

- **The classical tests often struggled to differentiate one consumer from another:** When we applied these personality tests to real life projects, we often struggled to find any real differentiation between different personality segments. The example chart below (see Figure 5), from a project to understand the personality of car buyers, illustrates the challenge. We were able to measure clear differences in only one of the big five personality dimensions, while in the rest the data was completely flat. As a result, that data was not very useful.

Fig 2

Big 5: Openness of car buyers by brand



² https://en.wikipedia.org/wiki/Regulatory_focus_theory

³ https://en.wikipedia.org/wiki/Locus_of_control

⁴ https://en.wikipedia.org/wiki/Consideration_of_future_consequences

⁵ <https://en.wikipedia.org/wiki/Self-efficacy>

⁶ [https://en.wikipedia.org/wiki/Affect_\(psychology\)](https://en.wikipedia.org/wiki/Affect_(psychology))

⁷ https://en.wikipedia.org/wiki/Need_for_cognition

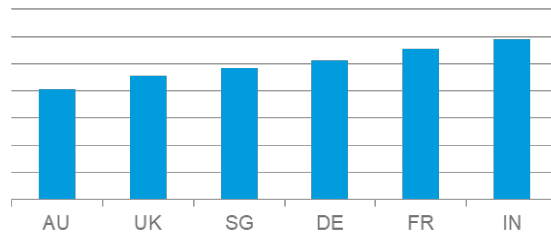
⁸ https://en.wikipedia.org/wiki/Hedonic_motivation

⁹ https://en.wikipedia.org/wiki/Big_Five_personality_traits

- **The tests do not travel well:** What is more, when we ran these tests in different countries, the data proved very inconsistent and difficult to compare.

Fig 3

Big 5: Openness by country



This is an issue the academic researchers are starting to acknowledge too, best exemplified by the recently published a paper from the economist Rachid Laajaj, which examined the inconsistencies of big five personality trait measurement in non-western countries.

- **Single tests were unable to tell the whole story:** Each test in itself was not very useful considering the complexity of consumer decision-making. Just knowing the big five facets of someone’s personality, for example, was often not enough, rather like going into an optician and they only have one pair of glasses with a fixed focal length. Every commercial project demanded that different facets of consumer personalities or decision-making processes be measured and compared.

We realised we needed to develop a more effective and comprehensive means of measuring personality and cognitive decision-making styles, for commercial market research purposes. Thus, our journey started with having a good hard look at some of the existing methods used to measure personality, in order to find out why they often deliver poor audience segmentation.

Part 1: Understanding the common challenges with classical personality measurement methods

Most of the common means of measuring personality and cognitive thinking styles have been devised by academics in Western markets. They are isolated personality measurements that have often been tested only on small-scale audiences - in many cases on students - in single countries, mostly in the US. Therefore, to help us understand how these tests were working, we took a variety of them and fielded them at market research scale alongside each other, on a range of our panellists in different countries and at different ends of the cultural spectrum, to try to understand some of the common issues and understand how individual tests were interrelated. We tested out both the long and short form version of the OCEAN Big 5 Personality Trait test alongside the *Zimbardo Time Perspective* and *Boyd Past, Present and Future* focus tests, as well as some classic tests of *Locus of Control* and *Regulatory Focus*.

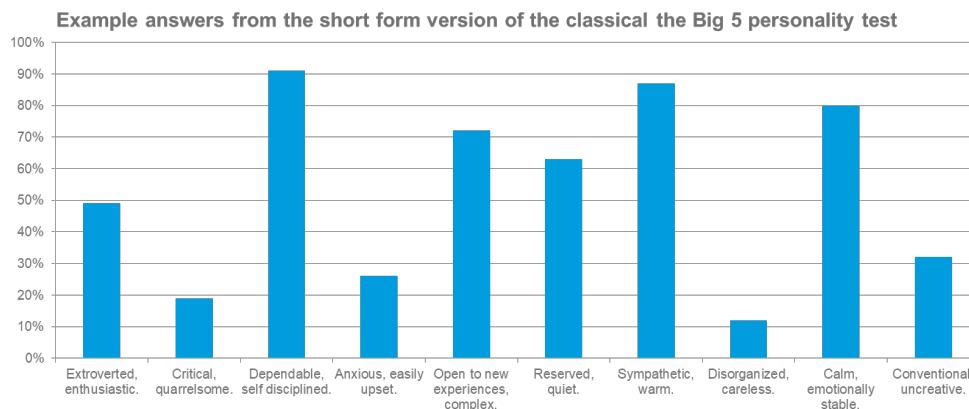
We would not wish to denigrate the tremendous thinking and groundwork put into the development of these tests, but examining them purely from a commercial market researcher’s survey design perspective and having fielded them internationally at scale and getting the same people to do the different test alongside each other, many of the issues were clear to see.

1. The challenges of self-validating assessment methods

Nearly all the personality tests we examined rely, one way or another, on fairly direct forms of self-assessment, essentially asking “Are you like this?”, which is a magnet for cognitive bias. Analysis from across these experiments showed that self-assessment is fine for measuring what might be described as neutral aspects of our personality: for example, extroversion. People are able to identify themselves as being extrovert or introvert and feel comfortable thinking of themselves as one or the other, but are less reliable at assessing aspects of personality that require self-criticism. The classical big five test, for

example, has a particular problem with self-assessment bias in measuring conscientiousness, openness and agreeability. As the chart below (Figure 7) illustrates, few people are prepared to admit to themselves that they are unconscientious, closed-minded or disagreeable.

Fig 4

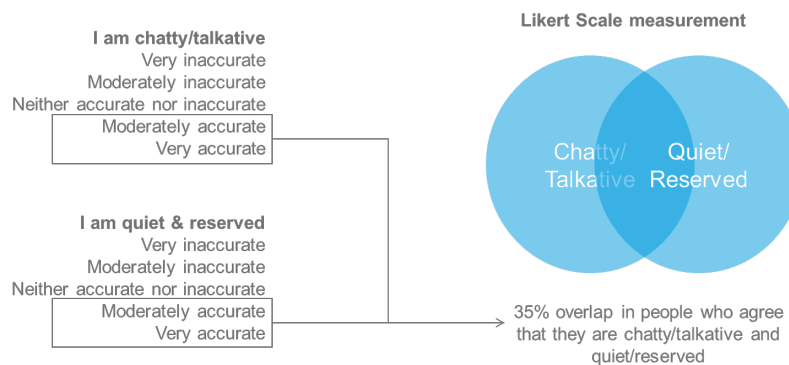


With such a large natural misbalance of answers, it becomes difficult to differentiate people in these personality dimensions, so it should be no surprise that it was in these aspects that we had most difficulty in differentiating consumers for commercial projects.

2. Overreliance on repetitive Likert scales

Compounding this, nearly every test we examined had an overabundance of *Likert* scales, often employing banks of 20 or even 30 at a time. When in some doubt, a significant proportion of people will say they moderately agree with just about anything and the problem only gets worse if respondents are not feeling engaged. When testing, we found upwards of 35% overlap, of mutually exclusive answers to separate questions, such as in the example below (see Figure 8).

Fig 5



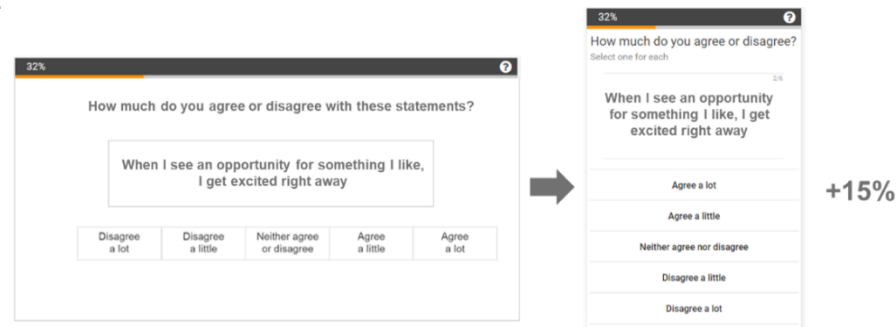
This problem became even greater in certain Asian countries, both because of cultures in which respondents tend to agree with things more, and because the abstract nature of the questions carried an increased risk of misinterpretation. In India, we found up to a 50% overlap in some cases of mutually exclusive questions. This creates a lot of noise in the data, making it difficult to differentiate one personality characteristic from another. That is not to say Likert scales do not have a critical role in measuring personality; the challenge comes when they are overused and pose difficult questions that confuse participants, especially after translation into different languages. They have to be used carefully, with additional care taken to ensure participants give them their full attention.

3. Modal biases

We also observed a more practical challenge with some tests in rendering larger-range scales on mobile devices. The number of options meant they needed to be vertically ordered on mobiles, which delivered

much higher top-scale bias (a 15%+ difference) compared with questions laid out left-to-right, on larger-screen devices.

Fig 6



This can exaggerate some age-based personality biases. For example, the increased positivity of young people compared to older people can be exaggerated by the device the survey is completed on, with more young people using mobiles and more older people using PCs.

4. Western-centric questions

Another major issue was the “*Western-white-male-wealth*” biased nature of the questions being asked in some of the tests we evaluated, such as the regulatory control survey. This test is used to assess attitudes towards taking risks and included question about:

- Going camping in the wilderness
- Investing 10% of your annual income in a moderate growth-diversified fund
- Betting a day’s income at a high-stakes poker game
- Going down a ski run that is beyond your ability
- Going white-water rafting at high water in the spring
- Taking a skydiving class

All of the above would be outside the range of experience or consideration of most people living outside the collegiate world of the US.

5. Personality metrics that are one step removed from being commercially useful

The academic nature of many of these tests, never originally designed for any commercial purpose, means that some of the questions and personality constructs are not very transferable to understanding real world consumer decision-making processes. Take, for example, “Emotional stability”, one of the OCEAN Big 5 measures. This reflects how strongly one feels and acts upon emotions, but also involves a measurement of someone’s latent anxiety levels. A highly emotional decision-maker might make quick, impulsive choices, but an anxious decision-maker might want to invest time and thought to ensure they make the correct decision. Thus, one generic measure of emotional stability is difficult to use – there is a need to subsegment this personality type if it is to be of any use for marketing purposes.

Attitudes towards risk is another good example. These surveys focus on physical/action-based risk, but a consumer marketer is more interested in consumer decision-making risk - for example how much information someone needs before being prepared to make a decision. Knowing whether someone likes white-water rafting is little help in answering this.

6. Uncontextualised generic questions

This leads to the observation that many questions in these personality tests are very generic in their nature, and not anchored to consumer-based decision-making processes. To be asked, for example, if you feel you are a “conscientious person” is somewhat meaningless without some sort of context, resulting in less useful responses. In real life, we exhibit different levels of conscientiousness depending

on circumstances. We are likely to put more thought into buying a car, for example, than washing-up liquid.

7. Stand-alone tests, which only measure isolated facets of someone’s personality

Any one test only measures one facet of someone’s personality, but all the different tests stand isolated from each other. When tested together, we were able to see clear cross correlations and relationships between different tests, down to the interwoven nature of different aspects of our personality, but in their existing form there is no way of linking these tests together efficiently.

Part 2: Undertaking a ground-up re-think about how to conduct personality measurement

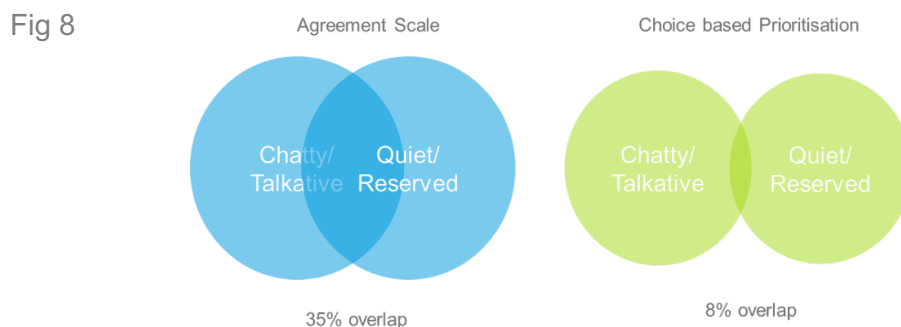
Armed with these insights, we started to explore how to address some of these issues by experimenting with different approaches.

1. Tracking confirmation bias by switching from using Likert scales to Competitive Choice-based Prioritisation (CCP)

Our first move was to think about ways to reduce reliance on Likert measurement techniques by using a competitive choice approach. This is a technique where instead of asking people to monadically evaluate themselves against a series of personality characteristics, we present a cluster of competing characteristics and ask people to simply pick out the ones they feel most apply to them.



We originally pioneered this approach to more reliably measure issues that consumers naturally over-claim about, for example consumer attitudes to sustainability-related issues. Most people, when asked to assess the importance of the government doing more to tackle global warming, would say it is very important. If they are instead asked which issues are important for the government, and are given a competitive list which includes global warming among others such as gender equality, improving the health service, etc., without constraining the number selected we found the proportion who choose global warming decreases to more a realistic level and reveals those who really think it important. Likewise, when you ask people to pick out their personality traits from a competitive set, they pick the ones that they can truly identify with and we found this significantly reduced the overlap between mutually exclusive personality characteristics, greatly reducing the amount of noise in the data.

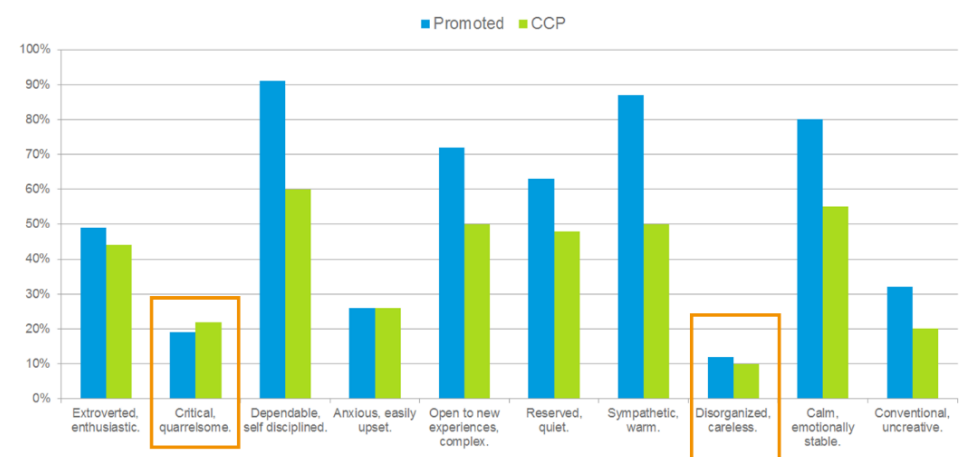


Furthermore, because it is quicker to select options like this, we found that we could evaluate nearly three times as many personality dimensions in the same time-frame as when using Likert scales. This is important, as one of our goals was to combine multiple tests into one measurement instrument, meaning we needed to ask more questions.

2. Dealing with under-claim

This approach did not completely solve the problem, however. While it reduced over-claim - with less people claiming to be self-disciplined, open, calm and sympathetic - it did not tackle under-claim. Few people are prepared to tick a box that identifies them as disorganised or critical, so these measures did not change.

Fig 9



To assess these more “negative” aspects of our personality, we needed to use different approaches. Our experiments uncovered several very effective techniques.

3. The *Silent Dog* method¹⁰

This method, named and championed by Ray Poynter, comes from the idea of examining what is *not* said. We realised that if we transposed some of the questions into the opposite dimension and examined those who did not select them, we could get closer to the truth.

Fig 10

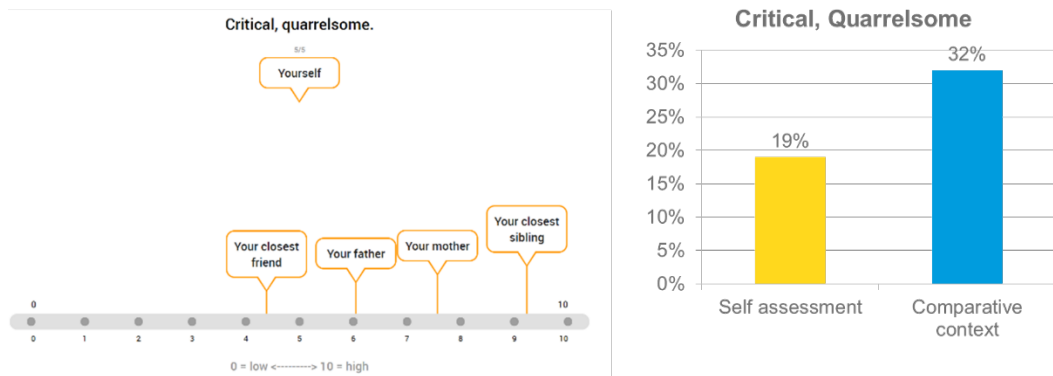
I am untidy (12% tick)
 v
 I like tidying up (70% don't tick)

4. Family/friend anchoring

While few people are prepared to concede that they are critical or quarrelsome in a general sense, we found they were a lot more able to evaluate themselves as such in relation to people they knew. “I am prepared to admit that I am moodier than my brother”. A subtle change of wording encourages comparison, not to some abstract average, but to family and close friends, and this goes some way to improve the levels of negative self-reporting.

¹⁰ Sherlock Holmes solved a murder mystery by noticing that the dog did not bark, so must have known the murderer.

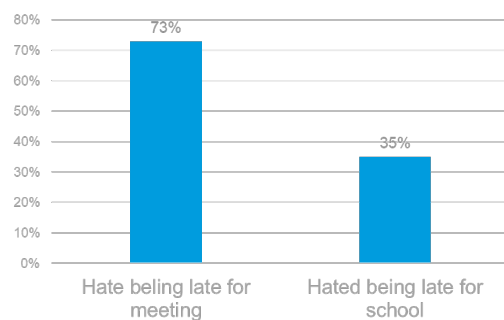
Fig 11



5. Adding some retrospective perspective

In a similar vein, we found that people were more able to look with less bias at their younger selves than their present-day selves. “I won’t admit to being the type of person who is late to meetings, but I am prepared to concede that I was often late for school”. As so many aspects of our personality are formed in our youth, this approach provided useful and revealing insights.

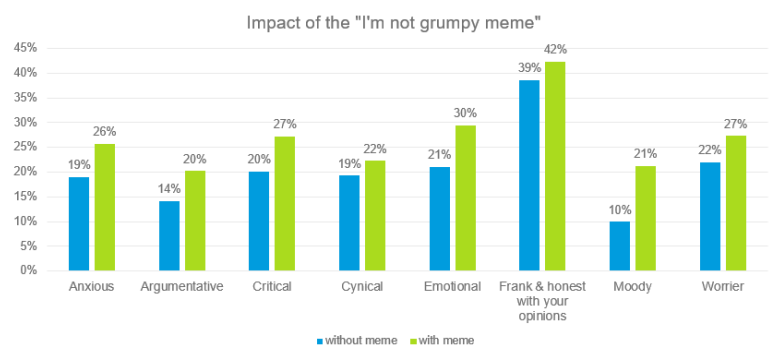
Fig 12



6. Using memes to encourage more honest self-examination

We found we could improve negative self-reporting further still, by highlighting the difficulty people have in observing certain aspects of their personality. We communicated this using the famous “Grumpy Cat” meme and a narrative explaining how hard it is to self-observe. So successful was this technique, the Grumpy Cat R.I.P. might well be due some sort of special retrospective market research honour, since nearly twice as many people self-reported as being moody and every negative dimension we measured increased.

Fig 13



7. Using behavioural measures¹¹: The next technique we integrated into our methodology was a switch to using more behavioural-based measures that are a little easier for people to answer truthfully. For example, only 12% of us are prepared to concede to being disorganised, but 50% are prepared to admit that the clothes in their bedroom drawers are disorganised.

¹¹ The value of behavioural question techniques has been outlined in a previous ESOMAR paper. See Puleston, Brownlee and Wheatley (2018).

Fig 14

Are you disorganised? →
12%

What are your clothes drawers like?



50%

We cannot assume that just because someone's drawers are untidy, they are a disorganised person and thus have lower levels of conscientiousness; all it provides is a small clue. We found that by asking several such questions, they can all add up to a powerful means of measuring personality aspects we find harder to confront directly.

Fig 15

Conscientiousness



We also realised that more we could make these behavioural-based measures situationally relevant to consumer decision-making, the more useful they would be for commercial research.

Fig 16

Generic

Situational relevance

- | | | |
|--------------------------|---|--|
| I am organised | → | I make a list of the things I need before going shopping |
| I am an agreeable person | → | I would never complain to the waiter in a restaurant |
| I am not a risk taker | → | I always check the labels when I go shopping |

Additionally, we needed to identify behavioural measures that would allow us to sub-segment each of the personality measures to ensure the questions covered all the different personality aspects relevant to real world decision-making. To devise our re-imagined test, we evaluated literally hundreds of different types of behavioural measures, in a series of experiments, as Figures 20 show.

Fig 17

- | | |
|---|---|
| At home: Everything in my clothes draws is neatly organized | Money: I am organized with money |
| At home: I get annoyed by mess | Money: I have a monthly budget that I try to stick to |
| At home: I like to tidy up | Money: I regularly check the transactions in my bank account |
| At home: I made the bed this morning | On holiday I unpack my suitcase and put all the clothes away |
| At home: I put my music or books collection in alphabetic order | School: I always arrived on time for school |
| At home: I sometime leave my clothes on the floor | School: I always handed in my homework on time |
| At home: My bedroom right now is very tidy | School: I occasionally took a day off pretending not to be well |
| At home: My partner sometimes moans at me for being messy | School: I tended to do my homework at the last minute |
| At home: There are likely to be things in my fridge past their sell by date | School: I was a bit lazy when it came to preparing for exams |
| Cooking I always try to follow the recipe | Shopping: I always cut out and use offers when I see them |
| Cooking put a lot of effort into cooking when I do it | Shopping: I always make a shopping lists before I go to the supermarket |
| Cooking wash up straight after every meal | Shopping: I am an avid reader of reviews to help me decide what to buy |
| Cooking watch how much I eat | Shopping: I like to keep receipts |
| Cooking We plan out meals in advance | What is your attitudes towards voting?: I always vote in every election |
| Habit breaking skills | What is your attitudes towards voting?: I don't always vote |
| I have successfully lost weight | What is your attitudes towards voting?: I never really vote |
| I always try to read reviews before choosing what film to watch | What is your attitudes towards voting?: I voted in the last election |
| I am a bit of a gambler | Work: I am exacting in my work |
| I am very careful about recycling | Work: I have never called in sick as an excuse to take a day off work |
| I collect things | Work: I like to follow a schedule |
| I double knot my laces | Work: I like to get into to work early |

We then used principal component analysis to identify the most stable and reliable set of behavioural measures assess each personality dimension.

Fig 18

Principal Component Loadings
3 components explaining 58.4% of the variance

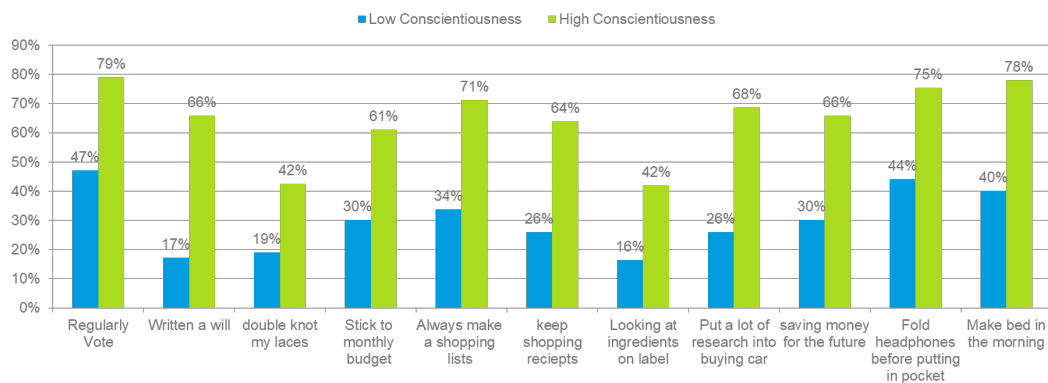
	Component 1 (25.1%) Eigenvalue: 3.77
The past is too many unpleasant memories to all prefer not to think about	0.754
Painful past experiences keep being replayed in my mind	0.752
I've taken my share of abuse and rejection in the past	0.747
I had to fight to get up close and personal with you	0.710
I think about the bad things that have happened to me in the past	0.644
Things rarely work out as expected	0.565
I think about the good things that have happened to me in my life	
Even when I am enjoying the present I am drawn back to comparisons with similar past experiences	
I often think of how I wish I had done differently in my life	0.428
I've made mistakes in the past that I wish I could undo	0.485
Fate determines much in my life	
My life path is controlled by forces I cannot influence	0.478
Often I just pay off rather than hard work	
You can't really plan for the future because things change so much	

e.g. Conscientiousness

- I like to tidy up
- I always handed in my homework on time
- I regularly check the transactions in my bank account
- I am exacting in my work
- I'm an avid reader of reviews to help me decide what to buy
- I put a lot of effort into cooking when I do it
- I always cut out and use offers when I see them
- I hate being late
- I am organized with money
- My bedroom right now is very tidy

Pulling all these techniques together, calibrating and aggregating each element, we were able to create a much more balanced and rounded picture of each personality trait that allowed us to differentiate real life behaviours far more effectively than we could achieve with the classical personality measurement techniques we had evaluated.

Fig 19



Part 3: Combining multiple personality and cognitive tests into one survey mechanic

The final part of the story was working out how to efficiently combine the core personality, cultural cognition and cognitive thinking styles we wanted to assess into one survey, to get full a 360-degree view on someone's personality and anchor these to their underlying consumer decision-making style. We identified eight specific test we wanted to combine into one survey (see Figure 24).

Fig 20

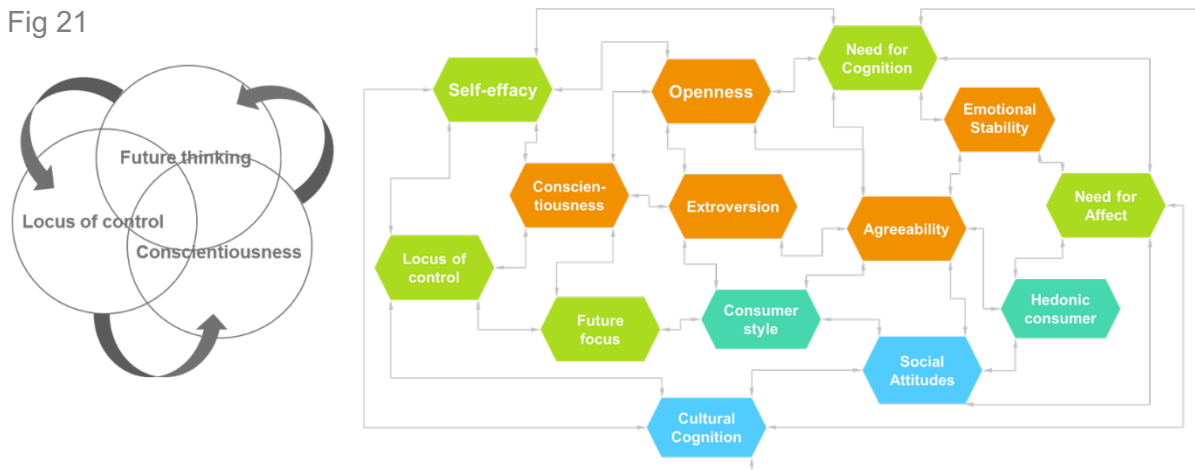


1. How we integrated the tests

Through a series of pilot experiments, we combined collections of these tests we had developed and adapted using the techniques explained above, then forensically examined the contribution that each question from each test made to these combinations, and the underlying correlation between questions

from the different tests. What was clear from these experiments was that the different personality aspects are often closely interwoven. For example, a person who considers the future and has a strong sense of internal self-control, is also likely to be more conscientious, so the answers from each test could be used to cross-validate each other, providing greater data stability overall. By doing this, we carefully whittled down each test to its core unique elements, removing overlapping questions and using the answers from one test, to inform the answers to another.

Fig 21



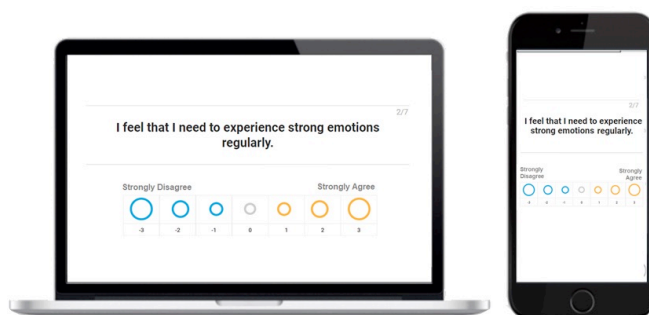
2. Blockchain validation

Working a little like a blockchain validation process, we found that by combining many personality tests into one survey we could use the answers from every part to independently cross-validate and calibrate the answers to every other part of the survey. This made us less reliant on one set of questions from one test to predict any one personality dimension, and meant we could shorten each part of the survey, since the other parts of the survey could fill in the gaps. In this way, we were able to combine these eight independent tests, containing 30 minutes of questions, into one integrated survey that only took around 17 minutes to complete.

3. Designing the survey experience

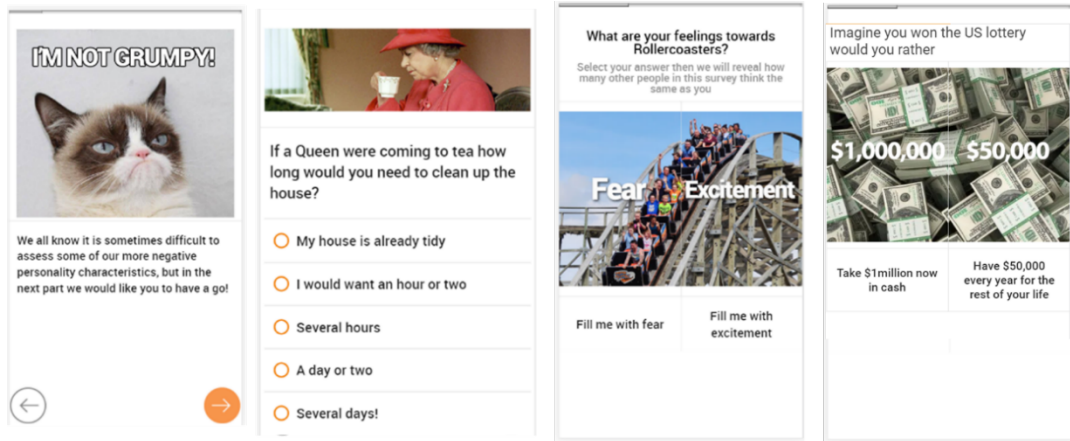
Recognising that 17 minutes was still a long time to ask people to concentrate, our main focus from a survey design point-of-view was to work out how to most effectively hold respondents' attention throughout the survey. To avoid repetition fatigue, we mixed and matching question formats, with no more than eight questions in any one repetitive loop. To reduce modal effects, we carefully designed the range-type questions we used to work consistently across devices.

Fig 22



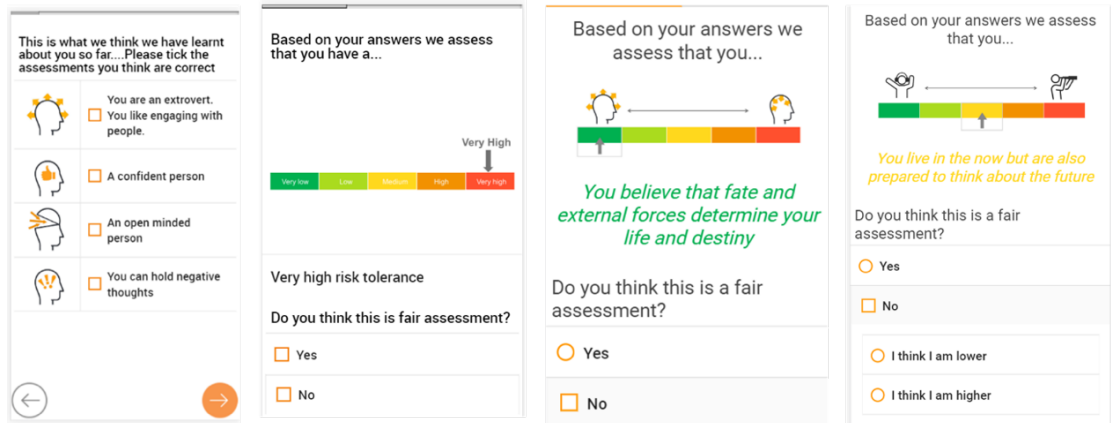
We designed the survey around a modularised format, breaking up the component parts of the survey, into three-minute-long, “thinking chunks”. We began each with what we describe as a “thought starter”, a question to introduce the topic of the next section and grab the respondent’s attention.

Fig 23



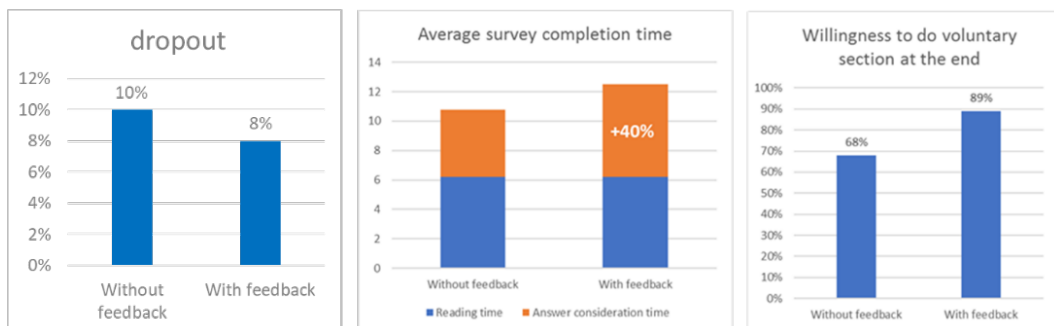
At the end of each section, we gave the respondent feedback about what we had learnt about them along the way and asked them to validate the accuracy of our assessment. If they thought it was wrong, they were given the option to correct it. This feedback really helped in final-stage piloting to ensure the survey was functioning effectively in the minds of the people taking it.

Fig 24



We were able to clearly quantify the value of these engagement elements in a research-on-research experiment, where we removed them to compare completion rates. The thought-starters and feedback reduced drop-out, significantly improved the time respondents spent thinking about their answers, as well as increased their willingness to continue participating at the end of the survey.

Fig 25



4. Piloting to ensure our personality test worked across cultures

We finally undertook two waves of large-scale multi-country piloting, to refine the survey in order to ensure that the results it delivered were consistent across countries. This involved quite a few detailed refinements to some of the questions. We found it almost impossible to ensure that every question worked in every country, however we found that one of the other big advantages of basing each personality measure on answers from across multiple questions, from different parts of the tests (up to 40 different measures contribute to each personality dimension), was that it provided much more stable cross-country comparisons than any single test method could offer. If one particular question was subject to some cultural variation, it would not completely corrupt the whole score. In the final version of the test we were able to achieve correlations of ca. 0.9+ between countries, in the majority of personality dimensions.

Fig 26

		correllation			correllation
IN	Extoversion	0.87	IN	Agreeableness	0.90
RSA	Extoversion	0.91	RSA	Agreeableness	0.88
Sing	Extoversion	0.83	Sing	Agreeableness	0.90
UK	Extoversion	0.89	UK	Agreeableness	0.92
US	Extoversion	0.90	US	Agreeableness	0.96
world	Extoversion	1.00	world	Agreeableness	1.00
IN	Concientiousness	0.93	IN	Openess	0.93
RSA	Concientiousness	0.89	RSA	Openess	0.93
Sing	Concientiousness	0.90	Sing	Openess	0.94
UK	Concientiousness	0.94	UK	Openess	0.95
US	Concientiousness	0.94	US	Openess	0.96
world	Concientiousness	1.00	world	Openess	0.98
IN	Emotional range	0.61	IN	Self effacy	0.91
RSA	Emotional range	0.69	RSA	Self effacy	0.86
Sing	Emotional range	0.74	Sing	Self effacy	0.83
UK	Emotional range	0.88	UK	Self effacy	0.86
US	Emotional range	0.93	US	Self effacy	0.89
world	Emotional range	1.00	world	Self effacy	1.00

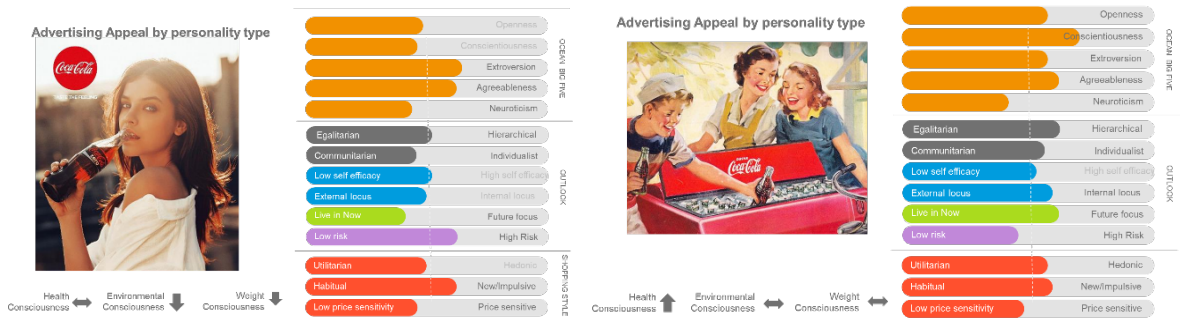
Part 4: Putting the survey tool to use

In the final part of this paper, we would like to show five case studies to illustrate the range of ways we have been able to start using this new approach to personality measurement, in practice, to get a clearer understanding of audiences and, as a result, devise more effective communication strategies.

Case study 1: Measuring appeal of different styles of advertising to different personality groups

To test out the personality test, one of the first projects we undertook was to ask people who had completed the test to then evaluate a range of different ads. We found we were able to quite clearly differentiate their appeal to different personality groups.

Fig 26



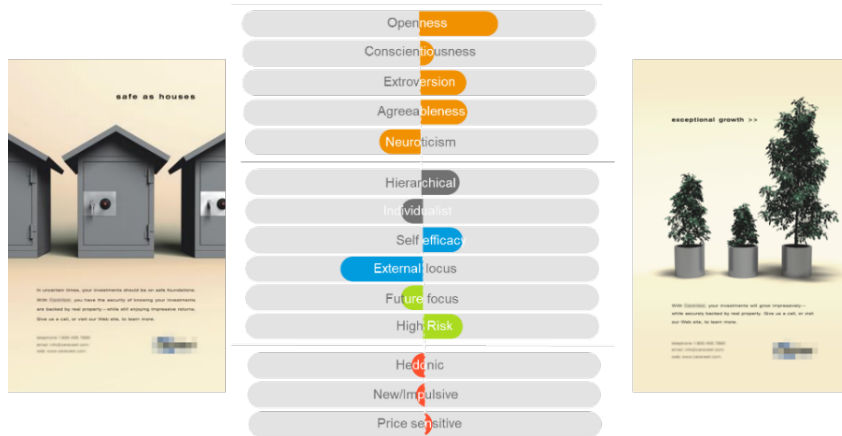
We could also see how pure advertising design could shape the appeal of an advert to different people with different thinking styles. In this example, two identical messages were presented in different ways. One appealed at a more emotional and hedonic level than the other.

Fig 28



We could also differentiate the impact of the core messaging. In the example of testing two finance ads, the one that focused on taking care of money appealed to people with a personality mind-set that emphasised an external locus of control and prevention. The other, which emphasised growing money, appealed to a promotion-focused and more open personality group.

Fig 29



Case study 2: Using personality evaluation to help devise better anti-smoking messages

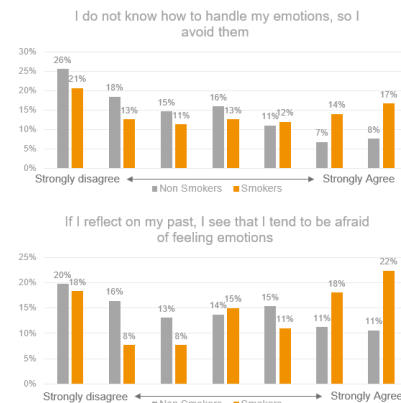
To demonstrate how we could use an understanding of the personality of a target audience to develop more effective advertising messages, we undertook a project for an Ogilvy client wishing to launch a new product to help people give up smoking. We mapped out the personality of smokers and those wishing to give up, and discovered they had a clear personality footprint. The personality test was able to predict if someone was a smoker with a ca. 0.48 correlation. This personality footprint exhibited lower levels of emotional stability, more fatalistic viewpoints and very promotion-oriented attitudes. Smokers had a strong tendency to avoid negative emotions.

Fig 30

The Personality fingerprint of Smokers



Need for Affect: Avoidance of Negative Emotions



Interestingly, the typical anti-smoking message focuses on provoking strong negative emotions, so an understanding of this personality type shows why so many smokers simply block out these messages. Our experiment showed that smokers actively avoided looking at this type of ad, clicking past them much faster than non-smokers.

Fig 31



These insights led our team to devise some different styles of messages, more suited to the personality of smokers; i.e. more solution based. These focused on external locus reasons for giving up and positioned the idea of giving up as a challenge, to appeal to a smoker's promotional mind-set.

Fig 32

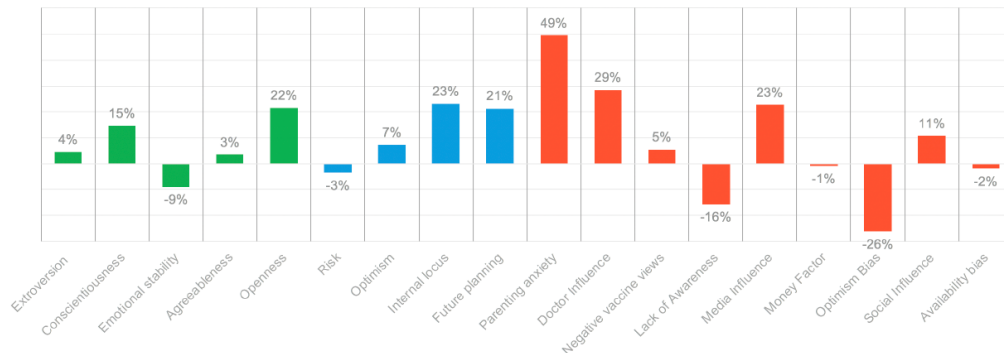


Testing these new types of messages, we found smokers to be far more likely to be engaged in reading them. They spent up to 50% longer before clicking the next button, compared to the typical smoking ads and 30% more time looking at them than non-smokers.

Case study 3: Using personality testing to understand the barriers to mothers getting their children adequately vaccinated

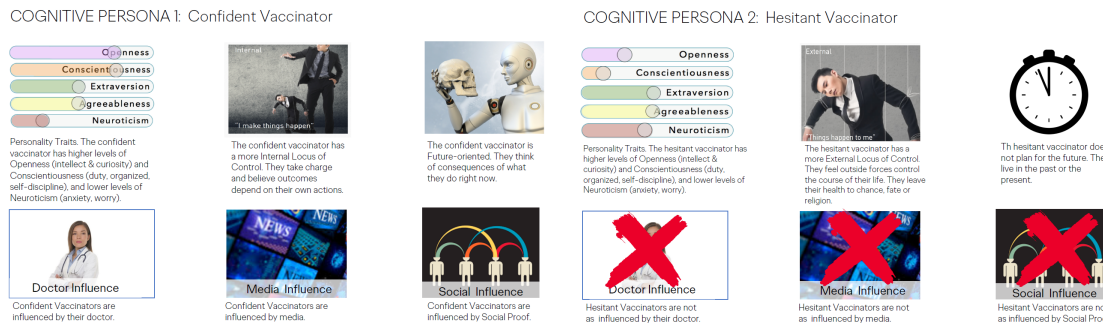
This project was undertaken for a client in Asia, to understand more about mothers and their attitudes towards vaccinations. The core brief was to understand the barriers to mothers getting their children adequately vaccinated and what drives the willingness of some mothers to fully vaccinate their children beyond the local government's minimum compliance. A customised version of the personality survey was fielded in five countries across Asia, integrated with a bespoke range of questions around parents' attitudes towards vaccinations and their child's well-being. From the results, we could clearly identify the core personality traits that correlated with a confidence about vaccination, versus those that were hesitant about getting their child vaccinated.

Fig 33



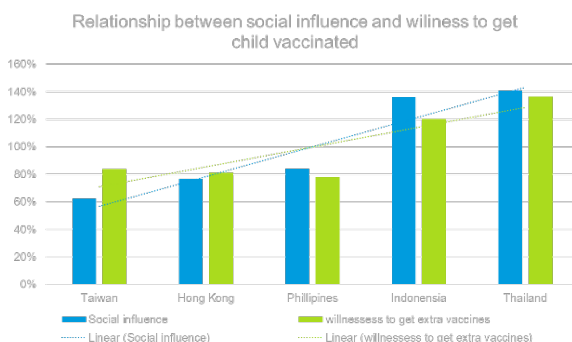
Building personas: From this, Ogilvy was able to carefully devise two cognitive personas to help understand these different personality groups, which were used in workshops across Asia in order to devise strategies to deal with the challenge of communicating to them.

Fig 34 & 35



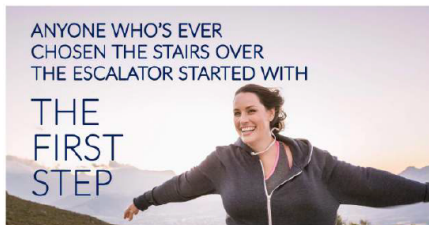
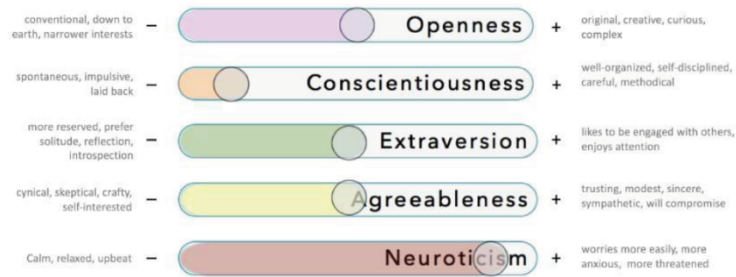
Making cross-cultural comparisons: We were able to map out and contextualise cultural differences between countries and identify unique personality differences between countries that impacted attitudes towards vaccinations. One example is the differences in the levels of optimism bias exhibited by mothers in each country, which we discovered significantly affected whether they were worried about the dangers of not getting their child vaccinated. We also observed different levels of social influence regarding the topic and how doctors and health-care professionals engaged with mothers in each country.

Fig 36



Case study 4: Undertaking a cognitive segmentation to understand the barriers to losing weight
 Ogilvy was commissioned by one of its client to help devise a more effective weight loss communication campaign. Doing a three lens analysis of personality traits, outlook and thinking styles of those who struggle the most with weight management uncovered a correlation of personality traits (low conscientiousness and low emotional stability) coupled with a mind-set of “external locus of control” and “low self-efficacy”; i.e. a lack of belief in solutions. The creative strategy that evolved from understanding the personality of people struggling with weight management, was a “new beginnings” pilot campaign that championed easy-to-do, small victories.

Fig 37, 38 & 39



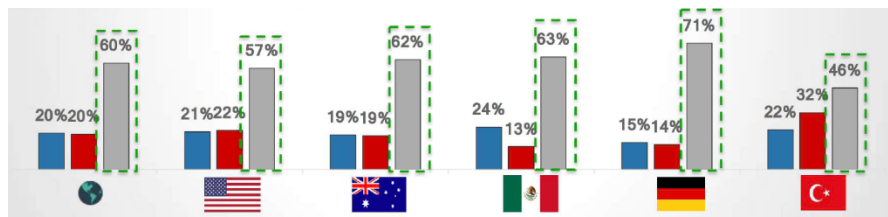
Recognising that people will not attempt weight loss unless they believe they have the competence and self-confidence that they can do it, the campaign emphasis was on social proof showing that lots of real people, like themselves, could do it.

Fig 40



The campaign in ad-testing significantly outperformed previously devised campaigns in every market tested.

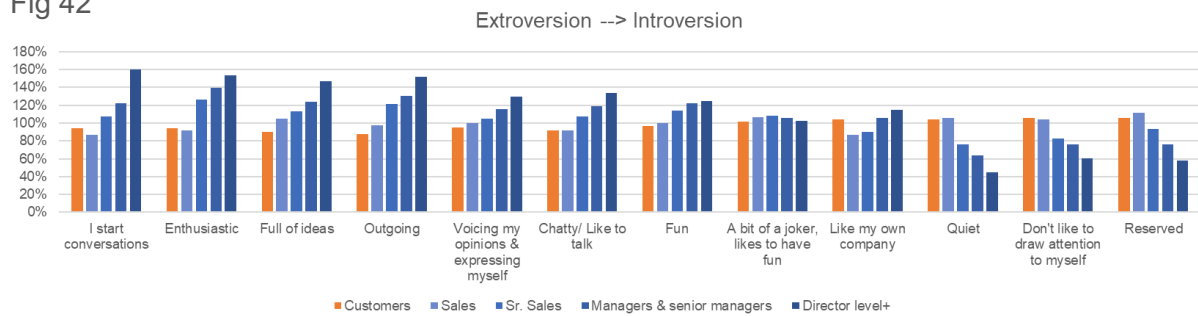
Fig 41



Case study 5: Using personality testing to understand the personality of a company & its customers

This was a project Ogilvy was commissioned to undertake for a large sales organisation in the US, to help grow the business by really understanding the people who work within it and the collective culture of the organisation, in order to compare this to their clients and customers. The survey was voluntarily and anonymously completed by people across the organisation and it was also sent to a cross-section of their customers. The results provided deep and broad ranging insights. It highlighted the strongly extroverted promotion-focused nature of the sales organisation.

Fig 42



It helped them to more clearly understand what it took to succeed in their business and revealed how the workloads of the middle and senior tier of management made it difficult for them to plan and see beyond near-field deadlines and the instinctive decision-making nature of the senior management team.

Fig 43



The study also revealed some of the real character of the people working across the organisation and fascinating personality differences between their customers and the tiers of management. These learnings providing valuable incites into how to more effectively connect and communicate with everyone.

Fig 44



Summary

Because a robust and growing body of behavioural science research has revealed that human decision-making and behaviour cannot be explained, or changed, by logical, rational approaches, we require a new approach to decoding individuals at scale. Having a multi-dimensional (personality, cultural cognition and cognitive styles) measurement instrument such as this, new innovation can be compared to an optician having a large set of different lenses; i.e. it allows you to examine almost any issue with more clarity through adding relevant lenses. Each lens helps reveal a bit of the “real why and the hidden who” of individual behaviour, but used together they render the sharpest image of all.

For strategists, communicators, and marketers – indeed anyone looking to better understand the real drivers of, and barriers to, behaviour change - this presents a way to bring to life and practically apply behavioural science theory. It allows for a new approach to 1) diagnosis of the challenge; 2) segmentation of groups from their inside-out; 3) reinventing personas; and 4) re-framing messaging and re-crafting content, so that it resonates more effectively when matched to individuals at scale.

This paper describes a two-year journey to develop just one 17 minute comprehensive survey measurement instrument, but we have learned so much along the way. We believe that many of the techniques we devised to tackle the challenges of personality, cultural cognition and cognitive styles testing have applications in the wider world of research:

- Competitive choice-based prioritisation;
- Honesty priming;
- *Silent Dog* techniques;
- Behavioural-based questioning methodologies;
- Blockchain-style cross-validation techniques to optimise surveys and provide more cross-cultural stability;
- Modulisation of surveys and giving feedback throughout a survey to improve engagement;
- Moving marketing and communications away from blunt, outmoded approaches, toward an empathetic resonance with individuals at scale.

We know this unified and multi-disciplinary approach is just the beginning to reinventing many aspects of marketing and communications research, which will result in much more effective segmentation as well as better-tailored messaging and content.

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