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The Elusive System 1

Can We Truly Measure Its Role in Consumer Behavior?

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The Challenge of Measuring Emotions

In a previous piece – *Is Market Research Getting Emotional?* – we discussed the growing desire among marketers to better understand customer brand relationships and predict key business outcomes by measuring consumer emotions. To accomplish that, researchers have designed tools – typically requiring rapid responses – meant to engage with the more emotional and impulsive System 1 hypothesized by Behavioral Economics.

In fact, however, the jury is still out as to whether brand research is really onto something with implicit, rapid-response measures, or whether it's better-served by the traditional measures that continue to fuel most of our brand models. There are several important challenges in using implicit techniques to measure emotions:

- *Systems 1 and 2 are closely connected by feedback mechanisms that make it difficult to isolate emotional responses from rational ones.*

- *Implicit tools (especially those developed for use with quantitative samples) may actually measure <u>transitory</u> emotional reactions, not the stable brand affinities that would better predict long-term or sustained buying behavior.*

- *Fast and automatic responses may not necessarily equate to emotions at all. They may be merely associative (the type of connection that links established word-pairs like "bread and butter") and thus, may not necessarily do a better job of predicting consumer brand behaviors that ostensibly reflect emotion.*

Inspired by some of these theoretical challenges, we've applied an empirical lens to the use of rapid-fire implicit metrics, by looking closely at the published data and generating some of our own.

Speed Demons

Traditional surveys encourage participants to take their time and consider their responses — and, in fact, measurement outcomes can be compromised when respondents "race." By contrast, implicit tasks are designed to trigger and capture *gut reactions*, the distinguishing characteristic of System 1. Implicit measurement is admittedly artificial, in the sense that it exists in a "survey moment" rather than in an authentic purchasing context. But for lack of better options, rapid responses have been offered up as reasonable proxies for the emotions thought to predict, or have bearing on, actual decisions. Perhaps they *are*. Still, speed carries some undesirable baggage that may limit the utility of rapid-response techniques.

More Noise. Speed may eliminate reflection, but it also reduces precision, and in doing so, adds noise. The human error factor (e.g., speed-reading or key-press mistakes) can submerge emotional signals we aim to measure in a tide of irrelevant variability. The risks can be particularly acute when we are trying to measure small effects — and indeed, System 1 effects *are* often small.

Blunt Stimuli. How *quickly* we require respondents to react influences how *much* they can react to. The stimuli chosen for many implicit tasks are common words rather than longer phrases or complex sentences, whose density would inevitably engage System 2. This problem introduces another unwelcome quality-quantity tradeoff: the loss of stimulus nuance or variety merely to gain speed.

Blunt Responses. When we accelerate response *time,* we are forced to reduce response *range,* since the number of options a person can juggle will decrease rapidly under time pressure. To solve this problem, implicit tasks tend to use blunt response metrics, such as simple binary decisions (yes/no) rather than multi-point scalar ratings. *But binary responses can constrain our modeling by reducing variance,* giving statistical advantage to more nuanced (explicit) tasks. In effect, even if some implicit tasks *do* tap System 1, they require us to accept another dubious tradeoff: loss of measurement sensitivity in exchange for sheer speed.

Technology Limitations. We can increase sensitivity by analyzing *response* time – so long as we're willing to accept other technical constraints on the types of questions we can ask. We're also prepared to deal with missing data. More challenging, though, are the *technological* problems. Researchers can't measure screen-refresh time or coordinate it to synchronize with the precise instant a stimulus appears on a respondent's own screen. That asynchrony can *add noise to RT data, masking relevant patterns – or worse, creating systematic biases.*

Do Implicit Metrics Add Value? *What We Know So Far*

Despite all these concerns, both academic and commercial researchers have reported certain systematic effects with implicit metrics — for instance, results that link positive words more closely with some brands than others. How such metrics measure up to traditional explicit exercises is another story, however. Even the leading academic advocates of implicit attitude measurement have been obliged to acknowledge (based on a large meta-analysis) that *implicit metrics frequently don't predict key outcomes as well as explicit*. But might they still have value? Yes.
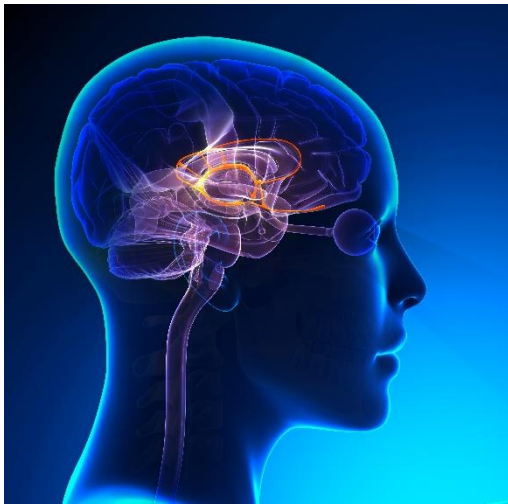
Implicit measures might still enhance predictiveness beyond explicit measures alone if, by using them both, we tap into two different (at least partially independent) mental modules.
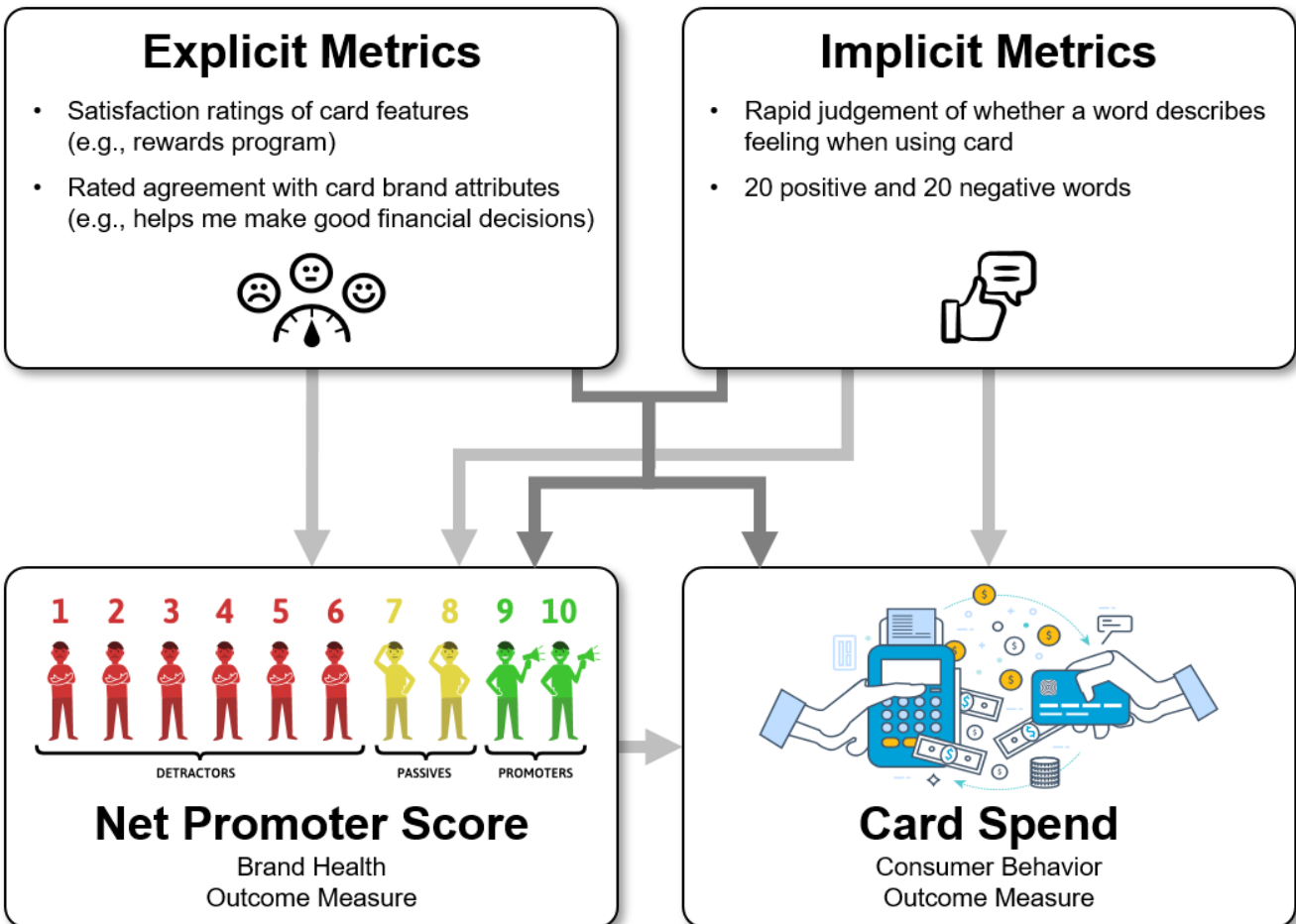
In previous research whose goal was to predict physicians' discretionary cancer treatment choices, we found that implicit metrics did enhance the model. The effects were small but they supported the hypothesis that certain emotional responses might be at work, and equally important, *might be subject to measurement — even in highly rational decisions.*

Intrigued by these suggestive findings in healthcare, we conducted self-funded research to assess the incremental value of implicit metrics in the *credit card category*. **We focused on two outcomes: share of spend and NPS.** We targeted spend because consumer *behavior* is ultimately what we care about, and NPS because it has emerged as the common currency of brand health measurement.

The Method:

NAXION conducted a self-funded nationwide online survey of almost 1,000 US adults who evaluated two credit cards using both explicit and implicit metrics. For the explicit measures, we used batteries that respondents used to rate satisfaction with card features and agreement with statements about each card brand. For implicit measures, we used a "Go/No-Go" task in which respondents were shown a series of words and given 1.5 seconds to indicate whether each word described how they felt when using each credit card. They pressed the space bar if yes (GO) and did nothing if no (NO-GO). We selected Go/No-Go because it's an easy task for respondents (hence, less likely to introduce noise); it takes little survey time; and it tends to produce results that correlate with other implicit methodologies.

Explicit Metrics

- Satisfaction ratings of card features (e.g., rewards program)
- Rated agreement with card brand attributes (e.g., helps me make good financial decisions)

Implicit Metrics

- Rapid judgement of whether a word describes feeling when using card
- 20 positive and 20 negative words

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

DETRACTORS   PASSIVES   PROMOTERS

Net Promoter Score
Brand Health
Outcome Measure

Card Spend
Consumer Behavior
Outcome Measure

Research Questions and Answers:

Did implicit metrics predict NPS?

Answer: **Yes.** *Implicit metrics <u>did</u> improve ability to identify NPS "Promoters." The improvement was not dramatic (20% over chance) but it validates the implicit metric.*

Did implicit metrics predict NPS *as well as* explicit metrics?

Answer: **No.** *Explicit metrics did twice as good a job at predicting NPS as implicit metrics, which, in fact, added nothing to a model built solely on explicit metrics.*

Did implicit metrics predict consumer behaviors?

Answer: **Just barely.** *Implicit metrics did predict the share of wallet allocated to the consumers' two credit cards but the effect, while statistically significant, was still tiny (10% over chance). And implicit metrics did only half as well as NPS in predicting relative card spending.*

Did the addition of implicit metrics to NPS enable us to predict consumer behavior better than NPS alone?

Answer: **No.** *Implicit metrics added nothing to a model built based on NPS alone.*

Did implicit metrics help us to characterize and differentiate these credit card brands by analyzing strength of association?

Answer: **No.** *"Secure," "Confident," "Responsible," and "Safe" were the positive words most often associated with credit cards in the Go/No-Go task. But there were no differences across credit card brands, and no systematic variation in the advantage of the higher spend card by word. This suggests that our implicit metrics tapped category-level associations and positive-negative valence but they failed to measure the nuances of brand equity.*

So Where Do We Land? Unsure Footing for Implicit Metrics

The allure of implicit metrics has been the hope that they would allow us to learn more without increasing survey burden — and, in the best case, even reduce burden, by swapping out longer System 2 questions for speedy System 1 tasks. When we apply those criteria, we don't see much reason for optimism here.

Persuasive evidence points to the conclusion that explicit metrics do a better job of predicting consumer behaviors than implicit. *Equally important, explicit metrics provide critical diagnostic information needed to improve brand performance and customer experience in ways that ultimately tighten emotional bonds with a brand.* Given the hand-clasp between Systems 1 and 2, emotions are often the *result,* not the *cause,* of brand performance perceptions: "*I think, therefore I feel."*

So, are there situations where emotions — and the implicit tools that track them — could be more predictive of consumer behavior? We suggest looking at cases where rational reflection conflicts with emotional valence. Implicit metrics may perform better in predicting use of less socially desirable products (or "vices") such as alcohol or foods considered to be unhealthy. In categories like these, consumers frequently provide socially acceptable and personally desirable responses (what I *should* do) rather than more authentic responses (what I *will* do).

Advertising research may also be fertile ground — especially among consumers who have not yet tried or committed themselves to a brand. When relationships with a brand are well-established, there is apt to be greater alignment between rational thinking and emotional response, and less incremental value in tapping System 1. For the moment though, our appetite for "cool tools" has people eager to experiment. So what should we keep in mind as we dabble with System 1?

Things to Keep in Mind When Setting Expectations for Implicit Metrics

Be careful not to mistake noise for signal. The intellectual appeal of the System 1 paradigm continues to outstrip our measurement capabilities.

Don't dispense with rational diagnostic information when you take your brand's emotional temperature. Brand emotions are the outcome of everything you have done to create positive brand experience.

Rely on projective techniques **to draw nuanced brand persona**. With the right tools and a little time, people can help you dig deep below the rational surface for brand emotions — even in surveys.

Use implicit metrics to understand consumers who merely *talk* **the brand talk.** The most promising application for implicit metrics may be in customers whose NPS ratings and behavior are misaligned, suggesting dissonance and latent brand risk.

Let's all work on improving the acuity of our explicit diagnostic tools for added insight on brand defection or underperformance. In our experience, highly specific but relevant reasons for defection are sometimes overlooked or inadequately addressed in brand tracking programs, and thus not fully captured in our models.

To see the prior article, *Is Market Research Really Getting Emotional?* click here.

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About NAXION

NAXION is a broadly resourced, nimble boutique that relies on advanced research methods, data integration, and sector-focused experience to guide strategic business decisions that shape the destiny of brands. Our century-long history of innovation has helped to propel the insights discipline, and continues to inspire NAXION's investments in the development and curation of emerging data science techniques. For information on what we're currently doing and how we might help you with your marketing challenges, please visit our website.