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# BRAND NAMES ACT LIKE MARKETING PLACEBOS

By

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### Brand names act like marketing placebos

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#### Abstract

This research illustrates the power of reputation, such as that embodied in brand names, demonstrating that names can enhance *objective* product efficacy. Study participants facing a glaring light were asked to read printed words as accurately and as quickly as they could, receiving compensation proportional to their performance. Those wearing sunglasses tagged Ray-Ban made fewer errors, yet read more quickly, than those wearing the identical pair of sunglasses when tagged Mango (a less prestigious brand). Similarly, ear-muffs blocked noise more effectively, and chamomile tea improved mental focus more, when otherwise identical target products carried more reputable names.

Well known biases such as observer-expectancy effects (Rosenthal, 1994) illustrate that reputation can shape perceptions. Psychologists have long known that commercial reputation, such as that embodied in brands, can color expectations and subjective experiences. For example, the same meat tasted better when it sported a better known brand (Makens, 1964). More generally, consumers often believe that brand names signal quality, and hence they expect products carrying more reputable brands to be better. This research suggests a related, but more intriguing, possibility: brands can actually *affect* product efficacy rather than merely *signaling* it. We will demonstrate that labeling the same product with a more reputable brand name actually improved the objectively measured performance of those who used it.

Preliminary support exists for the possibility that branding can alter the consumption experience. Allison and Uhl (1964) found that people who barely distinguished between different beers in a blind taste test sensed significant differences between the same beers when they bore brand labels. Using a more objective measure than self-reports, McClure, Li, Tomlin, Montague & Montague, 2004) found that the greater pleasure people reported while knowingly consuming Coca-Cola vs. Pepsi-Cola corresponded to higher activation levels in the dorsolateral prefrontal cortex, a brain area associated with emotions and cultural memories.

Thus, branding effects are reminiscent of medical placebo responses. Abundant empirical data suggests that placebos (i.e., pharmacologically inert therapies, such as sugar pills) can help people cope with pain (Price, Milling, Kirsch, Duff, Montgomery & Nicholls, 1999), and depression (Leuchter, Morgan, Cook, Dunkin, Abrams & Witte, 2004). Those conditions are difficult to assess objectively, but there is also evidence of placebo responses to conditions more amenable to objective assessment such as physical fitness (Crum &

Langer, 2007), irritable bowel syndrome (Patel et al., 2005), Parkinson's disease (Dela-Fuente-Fernández et al., 2001), and coronary artery disease (Granger et al., 2005).

#### Study: Brand Names and Product Efficacy

We compared performance of participants utilizing a product (sunglasses, earmuffs, or chamomile tea) said to assist task performance (visual, auditory, or mental concentration, respectively) when it carried more prestigious versus less prestigious brand names.

Participants were students, mean age 26, roughly 50% women. A between subject design was used, with 3 (task: overcoming glare vs. overcoming noise vs. concentrating)-by- 2 (brand prestige: high vs. low) independent variables. The dependent variables were number of correct responses, and, where applicable, also speed.

Overcoming Glare: Stimuli and Procedure. Participants (N=60) were asked to read aloud, as quickly and accurately as possible, 84 unrelated words printed on a 12cm-by-12cm transparency placed in front of a 60-watt incandescent bulb, in a lamp lined with aluminum foil to amplify glare. Participants, tested individually, sat at a table, their chin on a pad fixed 70cm away from the lamp. To reduce glare, all wore the same pair of sunglasses, labeled "Blocks 80% of visible light." Participants were randomly assigned to either the prestigious brand (Ray-Ban, N=30), or the less prestigious brand (Mango), conveyed via a sticker on the frame. They received 20NIS (then ~\$5) for participation, plus 0.15NIS per correctly read word, with no penalty for errors.

Overcoming Noise: Stimuli and Procedure. Participants (N=43) heard 62 unrelated words, one every 3 seconds, recorded and played on the background of a noisy construction site, and were asked to write down each word as they heard it. They were tested individually, all donning the same pair of protective earmuffs, said to "filter onerous audio frequencies, reducing noise while assisting in hearing conversations". Participants were randomly

assigned, via a sticker on the earmuffs, to either the prestigious (3M, N=22) or the less prestigious brand (Etkes), receiving 20NIS for participation, plus 0.15NIS per correct word, with no penalty for errors.

Concentration: Stimuli and Procedure. Participants (N=55) drank an identical cup of chamomile tea, described as "soothing to body and mind", but were randomly assigned, via an accompanying tag, to either a prestigious (Wisotsky, N=27) or a less prestigious brand (Hamutag). All then saw 35 flowerlike sketches, each with 48 small circles of different sizes surrounding a central point. Most circles (42-48) were connected to the center with a stemlike line (see Figure 1). Participants had 3 minutes to detect and connect all unconnected circles (not enough to complete this exacting task, which requires focus and patience), moving between "flowers" as quickly as they could.

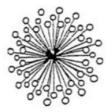


Figure 1

An example of the flowerlike pattern utilized in study 2<sup>1</sup>.

#### Results

Visual task: Participants wearing sunglasses tagged Ray-Ban made fewer errors than those wearing the same sunglasses, but tagged Mango (6.2 vs. 12.2 errors; t(58)=-3.52), and completed the task faster (64.4 vs. 102.8 seconds; t(58)=-5.89). Fewer errors cannot, therefore, be due to slowing down.

Auditory task: Participants wearing earmuffs tagged 3M identified more words correctly (26.1 vs. 21.4; t(58)=-4.1), but not more words incorrectly (26.1 vs. 27.8; t(58)=-4.1)

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<sup>&</sup>lt;sup>1</sup> Taken from a test named "Flaw recognition" in *Preparation for Selection tasks*, HighQ Press.

1.54, ns) than those wearing the same earmuffs, but tagged Etkes; speed was constant by design.

Mental concentration task: Participants drinking tea tagged Wisotsky detected more missing lines (35.5 vs. 30.8; t(53)=-2.66), and had fewer 'false-alarms' (0.63 vs. 3.75; t(53)=3.67) than those drinking the same tea, but tagged Hamutag; time was fixed by design.

#### Conclusions

Our experiments illustrate that brand names can *change*, rather than merely reflect, product efficacy. An interesting question is whether such reputation effects on product efficacy apply specifically to the dimensions for which the brands are known (cf. Lee, Frederick & Ariely 2006), as in our studies, or also generate a more diffuse 'halo effect'.

Our findings raise intriguing possibilities. For example, could knife manufacturers licensing use of the Volvo name, which is associated with safety, reduce cutting accidents? Conversely, and disconcertingly, might substituting generic versions of branded medications (a popular practice of healthcare organizations) be detrimental to patients' health? Current debates about bioequivalence (i.e., no significant differences in effects of active ingredients administered in similar conditions) focus on whether unmonitored ingredients of medications affect therapeutic efficacy. Our results question how bioequivalence should be defined and tested.

Branding effects on objective efficacy are a fascinating, if as yet not completely understood, phenomenon, worthy of further research exploring its breadth and causes, with wide-ranging potential benefits.

#### References

- Allison, R.I. & Uhl, K. (1964) Influence of beer brand identification on taste perception. *Journal of Marketing Research*, 1, 36-39.
- Crum, A.J. & Langer E.J. (2007). Mind-Set Matters: Exercise and the Placebo Effect.

  \*Psychological Science\*, 18, 165-171.
- Dela-Fuente-Fernández, R., Ruth, T.J., Sossi, V., Schulzer, M., Calne, D.B. & Stoessl, A.J. (2001). Expectation and dopamine release: mechanism of the placebo effect in Parkinson's disease. *Science*, 293, 1164-1166.
- Granger, B., Swedberg, K., Ekman, C., Granger, B. Olofsson, C., McMurray, J., Yusuf, S., Michelson, E. & Pfeffer, M. (2005) Adherence to candesartan & placebo & outcomes in chronic heart failure in the CHARM programme: double-blind, randomised, controlled clinical trial. *The Lancet*, *366* (9502), 2005-2011.
- Hastorf, A. H. & Cantril, H. (1954). They saw a game: A case study. *Journal of Abnormal & Social Psychology*, 49, 129-134.
- Kahneman, D., & Varey, C. (1991). Notes on the psychology of utility. In Roemer & Elster (eds.), *Interpersonal comparisons of well-being*. NY: Cambridge University Press.
- Lee, L., Frederick S., & Ariely D. (2006). Try it, you'll like it: The influence of expectation, consumption, & revelation on preferences for beer. *Psychological Science*, 17, 1054-58.
- Leuchter, A.F., Morgan, M., Cook, I.A., Dunkin, J., Abrams, M. & Witte, E. (2004)

  Pretreatment neurophysiological and clinical characteristics of placebo responders in treatment trials for major depression. *Psychopharmacology*, 177, 15-22.
- Makens, J.C. (1964). Effect of brand preference upon consumers' perceived taste of turkey meat. *Journal of Applied Psychology*. 49(4), 261-263.
- McClure, S.M., Li, J., Tomlin, K., Montague, L. & Montague, P. (2004) Neural correlates of behavioral preference for culturally familiar drinks. *Neuron*, *44*, 379-387.

- Patel, S.M., Stason, W.B., Legedza, A., Ock, S., Kaptchuk, T.J., Conboy, L., Canenguez, K, Park, J., Kelly, E., Jacobson, E., Kerr, C. & Lembo, S. (2005). The placebo effect in irritable bowel syndrome trials: a meta-analysis. *Neurogastroenterol Motil*, 17, 332-340.
- Price, D.D., Milling, L.S., Kirsch, I., Duff, A., Montgomery, G.H. & Nicholls, S.S. (1999).

  An analysis of factors that contribute to the magnitude of placebo analgesia in an experimental paradigm. *Pain*, 83, 147-156.
- Rosenthal, R. (1994). Interpersonal expectancy effects: A 30-year perspective. *Current Directions in Psychological Science*, *3*, 176-179.