Chapter 9
Dealing with the Devils: The Responsibility of Neuromarketing Practitioners in Conducting Research for Ethically Questionable Client Agendas

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9.1 Introduction

Interest in the practice of neuromarketing has exploded in the early years of the twenty-first century. Researchers have pointed to the exponential increase in online searches for the phrase "neuromarketing" (Plassmann et al. 2012) (Fig. 9.1).

In the popular blog "Neuromarketing: Where Brain Science and Marketing Meet," a post from the second quarter of 2015 classified 31 firms as practitioners of neuromarketing techniques, while close to 100 firms worldwide choose to define themselves under the umbrella of the Neuromarketing Science and Business Association (NMSBA). The New Yorker Magazine, a mainstream news outlet, has recently given credence to the legitimacy of the industry by exampling the success of specific research based in social and affective neuroscience, their article alluding to the fact that the neuromarketing field has "finally arrived" at a place to provide meaningful insights (Jarrett 2015).

As such firms grow, so do the types of businesses who employ their services in the hopes to harness the nonverbal responses that fall largely outside of awareness and to sway consumer decisions. The types of companies who have publically reported use of neuromarketing tools in their market research and advertising initiatives range widely from consumer packaged goods manufacturers (CPMGs), such as Campbell's Soups and Frito Lay (Fox 2010; Nobel 2013)[1] to automobile makers

[1] Campbells utilized specific physiological data information derived from the sweat emitted from the skin and patterns of changes related to the heart's beat and to ascertain psychophysiological measures of emotional arousal and engagement as success metrics to branded shelf stable soups and juices. Frito Lay applied learnings from EEG-based scalp signal to understand precisely how consumers responded to key brand color and flavor signatures of their product.

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A.R. Thomas et al. (eds.), *Ethics and Neuromarketing*,
DOI 10.1007/978-3-319-45609-6_9

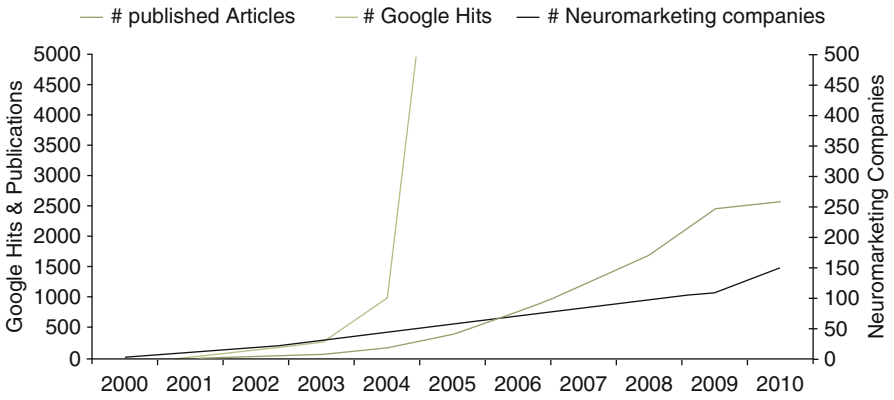

Fig. 9.1 Growth of industry. *Source*: Plassmann et al. (2012)

(Wells 2010)[2] to clothing retailers, such as Uniqlo, who harnessed EEG signals to derive consumer's t-shirt preference (Kirk 2015). With the rise of practitioners, the acceptance of neuromarketing's added utility in understanding the consumer, and an increase in client-side adoption of neuromarketing measures, it is clear that applied neuroscience is here to stay. The question then must be put forth to its field's practitioners: *When it comes to working for potentially dubious or questionable client purposes, where will the ethical lines be drawn?*

Academicians who are focused on the ethical consequences of neuromarketing have largely two primary considerations: (1) Protection of individual consumers who may be harmed or exploited by research, marketing, or deployment of neuromarketing procedures and (2) protection of the consumer's autonomy if neuromarketing-derived applications reach a critical mass in their ability to persuade consumers (Murphy et al. 2008). Both issues have considerable implications for neuromarketing practitioners whose services may be propositioned by individuals or corporations that lack ethical workplace conditions, who have historically misrepresented the health or safety benefits of their products or whose products or services carry known dangers to society. Before a full discussion of how neuromarketers fit into advertising or marketing applications of any kind, the history of "nefarious messaging" must first be considered.

9.2 A Brief Review of Ethical Misconduct in Marketing Endeavors

Prior to the existence of neuromarketing, the advertising industry maintains historic roots crossing ethical lines in multiple attempts to persuade the consumer, either by misrepresenting product benefits or actively choosing to minimize

[2] New Scientist journal undertook an exercise in which three versions of the front cover of one issue were tested using neuromarketing techniques.

known dangers of some consumables. Cigarettes makers were among the first guilty of such ethical offenses, falsely touting their benefit as an aid to digestion following meals even at the dawn of modern advertising. From 1936 to 1939, Camel Brand of Cigarettes ran the "For your digestion's sake, smoke Camels" campaign, which used a series of advertisements implying digestion was aided by smoking Camels because of the purported change to the stomach's pH balance following their cigarettes (Fig. 9.2).

Camel claimed to have derived its digestion "facts" on studies conducted at Cornell University, but such facts were illusory. By 1951, the United States Federal Trade Commission (FTC) issued a cease-and-desist order prohibiting the cigarette maker from portraying Camels as aiding "digestion in any respect" (Peeler 1996). The FTC mandate was considered ineffective and too late to matter, as the ad campaign in question had already come to its natural completion. The damage to those who smoked to aid digestion had already been done. In addition to easing the health risk burden for smokers, the campaign created a population of consumers who may not have otherwise chosen to smoke tobacco and may have gone against their intuition or inherent beliefs, only choosing to smoke as a result of the Camel ad's persuasive influence.

Product manufacturers in recent times have been called out for misrepresenting factual information regarding health benefits of their products, or false advertising concerning the safety of certain product ingredients. Regarding the former issue, consider the post millennial trend of wearing athletic shoes from the Sketchers brand, whose Shape-Ups shoes' form factor included a convex sole that was backed by third party statistics promoting increased effectiveness at weight loss and muscle toning relative to traditional shoes.

In 2012, it was revealed that the "independent" statistics supporting the shoe's health benefits were actually derived from a study commissioned by the shoe maker and carried out by the husband of the firm's marketing executive. As a consequence, Sketchers reached a $40 million settlement with the Federal Trade Commission for making scientifically unfounded claims about its sneakers (Hiscott 2014).

Manufacturers of consumables routinely misrepresent ingredients (Hiscott 2014), alter the definitions of health and nutrition information (Strom 2012), or even inflate consumer's perception of the amount of a product in a given package[3] (Ng 2015). The instances exampled thus far have illustrated prior marketing and branding initiatives which carried explicit messages that misrepresented key attributes for the purpose of increasing a product's desirability. While these marketing campaigns are clearly reprehensible, there is a more insidious side to historic advertising known as "stealth marketing" that bears discussion because it sets the context for ethical issues related to neuromarketing. This type of marketing lends itself to the subtle persuasive cues that neuroscience-derived insights could readily facilitate, potentially impacting consumers below their threshold of conscious awareness.

[3]The process of creating packaging that presents the illusion that a greater amount of product is contained within the package is deemed "slack-fill." In the United States, laws are in place to protect the consumer against this practice.

Fig. 9.2 Camel cigarettes. *Source*: from the collection of Stanford Research into the Impact of Tobacco Advertising (tobacco.stanford.edu)

The historic precedent for *stealth marketing* has roots in the 1950s era in the United States. A vocal marketing executive claimed to have influenced consumer behavior through subliminal primes, flashing interspersed visual primes such as "Drink Coca-Cola" and "Eat Popcorn" throughout the movie (Vicary 1951).

While the veracity of this research has been questioned (Karremans et al. 2006), the national media's strongly negative response to the notion of the public being covertly influenced was readily apparent. The September 21, 1957 New Yorker declared: "Minds have been entered and broken" (Moore 1982). This considerable outrage was born out of a fear that product manufacturers of relatively benign products were potentially manipulating the consumer populous in an unknowing fashion. One must consider for a moment that neuromarketing research did not factor into either the historic or modern issues exampled thus far, which intended to exploit consumers in varying degrees of unethical branding practices. The question remains: where might ethics be at odds with the practice of neuromarketing, and what can practitioners in the field do to assure sound ethical pursuits when it comes to servicing a client?

9.3 From Stealth Marketing to Stealth Neuromarketing

Discussions surrounding "stealth neuromarketing" are on the rise, pointing to potential ethical concerns surrounding use of neuroscientific tools in marketing research initiatives. Stealth neuromarketing is defined as "the point in which neuromarketing techniques reach critical effectiveness, and are used in such a way to manipulate consumer decisions without their knowledge or consent." Privacy advocates are concerned that applications derived from neuromarketing insights might one day threaten individual autonomy if this technology were able to effectively influence consumer behavior (Murphy et al. 2008).

Even if individual consumers never actively participate in neuromarketing studies, results of such studies have the potential to impact their decisions without them ever becoming cognizant of any persuasive tactics being deployed. In fact, the power of neuromarketing measures has been found even when small participant samples are tested. Dmochowski et al. recently found that everyday stimuli, such as popular television shows, evoke highly reliable brain activity across the viewing audience. Using electrical changes in the scalp's skin conductance via electroencephalograms (EEG) and changes to specific cortical areas in the blood oxygen dependence level (BOLD signal) through functional magnetic resonance imaging (fMRI), Dmochowski's team found that the level of inter-subject correlation in the evoked encephalographic responses predicted the expressed interest and preference among thousands of people, suggesting that particularly favorable stimuli may cause our brains respond in a stereotypical manner that is shared by our peers (Dmochowski et al. 2014).

A second study utilizing a small sample population predicted the success of an antismoking campaign in driving calls to a smoking cessation hotline (Falk et al. 2011). This study compared differences in targeted brain activity within the prefrontal cortex linked to positive response in message preference with self-reported of ad preference. Research findings from this work suggest that brain activity to specific ads was a better predictor of the general population's hotline call volume than what was predicted by the explicit self-reported ad preference. This work corroborates

the notion that the neurological reactions that may actually differ from opinions expressed verbally and that occur outside of conscious awareness, can predict the responses of many other people to ad campaigns promoting specific behaviors.

A final example of shared response, which has quickly become a classic exemplar of our human predisposition to "tick collectively," was evidenced by Uri Hasson and colleagues who sampled only five participants neural responses, via fMRI, while watching scenes from The Good, the Bad and the Ugly. They found that the movie clips elicited highly similar, synchronous brain activity across multiple brain regions across all the participants (Hasson et al. 2010).

Understanding such societal predictability to specific stimuli potentially increases the probability of it being harnessed in ways that are not ethical or in the best interest of the masses. Such research can be thought of as laying out a neural roadmap to why some videos, songs, behaviors, and memes go viral, moving from one person to many thousands of others via social media. The findings are relevant to political advertising, commercial market research, and public health campaigns, and broaden the use of brain imaging from a diagnostic to a predictive tool, yet in the wrong hands, such powerful tools can be considered weapons that might inflict harm to society if harnessed to serve unethical agendas.

9.4 Examples of What Could, but What Shouldn't Be Tested via Neuromarketing

Alcohol, tobacco, and other product firms who knowingly manufacture and sell consumables that cause health problems among many consumers, garner success by the very nature of understanding the different types of hedonic need states their products satisfy. If such entities were to carry out specific A|B testing for marketing messages that take advantage of the dynamic nature of human decision-making, messaging could be manufactured that best resonates with an individual to persuade them to engage in a product related activity they may not have otherwise chosen to do. Consider self-regulation, or will power, research, which some in the social and affective neuroscience community liken to a muscle that can be fatigued given the appropriate inputs (Muraven and Baumeister 2000). Once this neural "muscle" is fatigued, consumer's rational choice, which has been argued is a critical component of being a consumer, is likely lessened. If rational choice is linked to an ebbing energy store of self-control as some suggest, a consumer's free will to act rationally is necessarily compromised (Baumeister et al. 2007, 2008). If manufacturers of controversial products begin to employ neuromarketing techniques to understand brand's message efficacy occurring under the radar of conscious awareness, a consumer's free will *not* to choose the promoted product could be seriously hindered.

Current cultural discussions related to the power of neuromarketing measures relies on the argument that the bulk of human decision-making is born out as a result of nonconscious influencers (Dijksterhuis et al. 2006). While such deliberation

occurs outside of conscious awareness, consumer choices are made up of both conscious and unconscious inputs. In fact, philosophers are largely in agreement that human behaviors are manifested by a blend of conscious and unconscious processes working together to meet an individual's critical needs and facilitating important goal pursuits (Baumeister and Bargh 2014). As such, it is expected that future research will put greater emphasis on the interactions between conscious and unconscious influences (Simonson 2005). Overt marketing from firms with questionable ethical agendas *could* employ a two-pronged attack on the free will of consumers by marketing to both their rational, cognitive deliberations while simultaneously persuading with stealth measures that work to influence the consumer outside of their conscious awareness. Without the insights afforded by applied neuroscience, such an attack could not be possible.

9.5 Current Industry Standards in Ethical Considerations of Client Relations

Neuromarketing practitioners have an enormous and diverse ethical responsibility in assuring ethical treatment of participants, not solely within targeted research initiatives, but also to society as a whole in limiting the dissemination of insights and their potential applications to those that will not put the health or safety of society at knowing risk. It is evident that neuromarketing firms are the modern day Atlas, holding up the necessary burden of ethical practice when taking on clients with potentially dubious agendas.

Early on, as the field of neuromarketing was being to coalesce, a code of ethics was suggested in order to "promote research and development, deployment, entrepreneurship, and profitable enterprise alongside beneficent and non-harmful use of neuroimaging technology at all stages of development, deployment, and dissemination" (Murphy et al. 2008). The Neuromarketing Science and Business Association heeded the call for ethical conduct by creating the "NMSBA Code of Ethics" which works to address potential issues neuromarketing practitioners might face as a consequence of conducting applied research for commercial (Neuromarketing Science & Business Association 2013).

The treatise lays out core principles surrounding member's maintenance of research standards, participants' rights with respect to anonymity, transparency in research execution, subject's voluntary consent, and the protection of minors. While many points touched on in the Code are important in any research related to the protection of human subjects, it does not specifically address the prohibition of its members in working for potentially controversial entities, such as big tobacco, pharmaceuticals, alcohol, guns, politicians, or certain special interest groups. Such groups could inflict a more efficacious and expedient harm on society when armed with certain consumer-centric knowledge garnered from neuromarketing measures. There is a growing interest in NMSBA community members

to reframe the Code to articulate the values of the industry and determine business priorities in order to create a balance between external ethical concerns and internal business interests. In short, neuromarketing firms have perceived white space when it comes on the capitalization of strategic advantages of ethical practice.

Though the NMSBA is still in its relative infancy and has not yet addressed "working for the devil" directly in the current iteration of its Code, NMSBA members are actively working toward a shared vision in actively conducting pro bono research on an international scale which moves to subvert the marketing messaging of at least one of the devils: big tobacco. In March of 2015, members of the NMSBA released results of the "Neuro Against Smoking" study at their World Forum in Barcelona, Spain (Matukin 2015). Member researchers from 24 countries conducted what is to date the largest study on tobacco health warnings. The main agenda of the NAS initiative was: To support the World Health Organization, to promote healthy lifestyle, to propagate a tobacco free environment, to aid societies and governments in their fight against smoking, and to bring valuable new insights to the existing discussion on cigarette warnings.

Though the antismoking research was carried out by a relatively small proportion of NMSBA members, the importance of ethical concerns of the larger member base was only recently ascertained. An international exploratory study of NMSBA member practitioners was conducted to empirically assess beliefs and practices related to ethical concerns faced by the member practitioners as well as the beneficiaries of neuromarketing research insights (Pop et al. 2014). Results of the study were based from hypothesis testing and found a significant discrepancy between the reported relevance of ethical objections which arise from clients compared to those which arise from research subjects. Practitioner respondents reported that their client-side end users of neuromarketing insights considered ethical objections at the societal level against this type of information gathering about their consumers as it might negatively impact their company in popular media. Neuromarketing research subjects, on the other hand, were reported to be most concerned about the transparency and understanding of the tools used during their participation in such research initiatives. On the neuromarketing practitioner side, that the majority of firms do not believe their studies can trigger negative moods in their research participants and all agree to adopting data security and privacy assurance of participants. It is clear that NMSBA member practitioners hold a high degree of concern to maintaining ethical conduct with respect to their research subjects.

9.6 Future Directions

In the not-so-distant future both market research and neuromarketers will find success in new technologies that will harness psychophysiological responses of the masses which will serve as proxies to some brain processes. "Standoff" technologies, such as thermal cameras, will assess the temperature of every individual in a

room as a concommittment measure of emotional engagement. Wearables, such as wrist watches, will provide data on the wearer's level of mental preoccupation by measuring heart rate variability following test messaging. Data from both tethered and stand-off human "reads" will be coupled with "smart" marketing technology, leading to real-time dynamic messaging, tailored to proximal markets of one. Individuals will be vulnerable in a majority of consumer contexts as well as their own homes as a result of such technological alignments. The question of ethical neuromarketing practices has less to do with the careful scientists who self-categorize themselves as neuromarketers and more to do with questionable applications of marketers or product manufacturers who will learn from more venerable research. This type of feedback will be unethical if it is ultimately used to create messages aimed at boosting sales, but which do not truly mirror the agendas of products or initiatives (Wilson et al. 2008).

To the question of whether neuromarketing practitioners should engage in work for potentially questionable agendas or products that risk the health or security of our society, the short answer to it is "just say no." The potential for societal harm and manipulation of free will could come back to haunt them, even outside of their own awareness.

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