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Corporatizing the Unconscious:

Memes, Neuromarketing, and Christopher Nolan's *Inception*

> What's the most resilient parasite? An idea. A single idea from the human mind can build cities. An idea can transform the world and rewrite all the rules.
>
> Cobb in the film *Inception* (2010)

Dom Cobb's (Leonardo DiCaprio), *Inception*'s protagonist, comment about the viral and revolutionary nature of ideas shares many commonalities with Richard Dawkins' conception of memes. The word "meme" was coined by Dawkins, a noted English evolutionary biologist, in *The Selfish Gene* (1976), to describe a unit of human cultural information that is analogous to the gene, arguing that it is also replicated within culture. He contends that this cultural information, which can be an idea, belief, or behavioral pattern, resides in the brain and is a key replicator in human cultural evolution. A meme or idea can be hosted by one or more individual minds and is reproduced from one mind to another mind. A meme can be understood as a pattern that has causal agency and can spread across a culture. As with genetics, particularly under a Dawkinsian interpretation, a meme's success is predicated on the effectiveness of its host and its ability to propagate. Unlike traditional philosophy, the study of memes or memetics is not interested in the truth of ideas or beliefs, but rather in the success of the ideas to proliferate within and across cultures. Dawkins (1997), in a later essay, used memetics to explain the phenomenon of religious beliefs, their tenacious hold and viral spread through human cultures. As Cobb would understand, virulent ideas do transform cultures and have played an integral role in human evolution.

Christopher Nolan's *Inception* (2010) is the story of a team of skilled specialists led by Cobb to infiltrate the unconscious mind of Fischer (Cillian Murphy), the son of a dying corporate magnate, to implant the idea of disintegrating his father's energy conglomerate. The team is hired by Saito (Ken Wantanbe), a Japanese businessman, who hopes to profit from the dismantling of his competitor's company. By violating and manipulating Fischer's consciousness, Cobb and his team are able to corporatize his unconscious mind to perform labor that benefits their client. Admittedly, the fictional concept of corporatizing and monetizing unconscious minds is not a new one. Previous science fiction films, such as *Strange Days* (1995) and *Sleep Dealer* (2008) have proffered the idea of merchandising individual memories, and even erasing them to eliminate traumatic ones [*The Eternal Sunshine of the Spotless Mind* (2004)] or to protect corporate intellectual property [*Paycheck* (2003)]. In the 2011 film *Source Code*, military scientists corporatize and transfer the last eight minutes of consciousness of a dying Army helicopter pilot into a schoolteacher on a commuter train in order that he can determine the identity of the terrorist bomber and stop the attack. The pilot is caught in an exhausting cycle of repetitive labor unable to experience a natural death and seemingly doomed to remain a human military tool. What differentiates *Inception* from these films is its focus on implanting a complex meme or idea into human consciousness, a task that associates it with the nascent fields of memetic engineering and neuromarketing. I argue that the film, through its story of corporate espionage taken to the micro-level of trespassing and controlling consciousness, provides an insightful critique of the social risks and loss of privacy associated with neuroscientific technologies in the hands of capitalists.

In *Inception*, Cobb's team must carefully construct and insert a simple "version of the idea for it to grow naturally in the subject's (Fischer) mind." They must construct a multilayered

dream state situation whereby the subject "gives himself the idea" and it appears self-generated. In other words, they provide Fischer with the illusion of free will and choice, though his decision has been engineered from the beginning. While neuroscience has determined that during sleep, especially REM (rapid-eye movement) sleep, the brain "plays back" the patterns of daily events, which may serve the function of training neural networks to store memories, it has not been able to explain the subjective nature of dreaming or why dreams blend elements from real experience with fantasy (MacIver 2010). Despite recent research on using audio cues to signal lab rats to dream about a section of a maze track, neuroscientists are still a long way from building a dream experience and implanting ideas a la *Inception* (MIT). The field of memetic engineering, however, is focused on the concept of selecting and developing ideas or memes so they will influence people's behavior. Memetic engineering was developed by Gibran Burchett, Leveious Rolando, and John Sokol in 1999 while researching a potential young, music buying audience for Sony-BMG recording artists Wu-Tang Clan. Relying on mobile text messaging, they exposed the young group to a specific set of memetic themes and observed as the themes spread within the group (Ross 2013). Memetic engineering is the analysis of the influence of certain selected or developed memes, which can involve meme-splicing or memetic synthesis, on an individual's behavior and includes the distribution of those memes to alter the behavior of others in society.

Memetic engineering has been used in a number of diverse social problem-solving applications. For example, the U.S. military commissioned research on how to counter insurgency and combat terrorism, and Richard Pech (2003) published a study, "Inhibiting Imitative Terrorism through Memetic Engineering." Pech and Bret Slade (2004) also studied how the techniques of memetic engineering could be used to diagnosis structural problems and serve as a means to improve organizational efficiency and culture. While memetic engineering

has been primarily employed to solve large-scale social issues and problems, there is no reason that it cannot be used for commercial purposes and be applied on a much more focused scale to influence individual behavior. After all, advanced surveillance and investigative technologies developed by the government or at research universities are ultimately disseminated to commercial businesses for corporate security and even espionage. In *Inception*, Cobb's mentor is a professor at a university in France who has passed his scientific knowledge about navigating the mind through lucid dreaming to him. The professor laments Cobb's choice of becoming a mind thief extracting information to profit corporate moguls. The film illustrates how sophisticated technologies and techniques often developed for solving social problems can be appropriated by powerful industrialists, like Saito, to gain advantage in the capitalist marketplace.

Commercial interests are the primary goal of neuromarketing, which has been characterized as the marriage of neuroscience and marketing. At the center of neuromarketing are memes. In the world of marketing, given the voluntary nature of consumer product and service registration, along with the plethora of existing social networks, the extraction of consumer information is not really an industry issue. As with Cobb's mission in the film, the central goal of neuromarketing is to develop a precise, subtle idea that will resonate and influence a subject's thinking and behavior. Neuromarketing is a field of marketing research that studies consumer sensorimotor, cognitive, and affective responses to a range of marketing stimuli. Researchers employ a variety of technologies including functional magnetic resonance imaging (fMRI) to measure neural activities in the brain, electroencephalography, and Steady state topography to measure changes in one's physiological state, including heart rate, respiratory

rate, and galvanic skin response to study why consumers make the choices they do, and how these choices are expressed within images of the brain (Van Praet 2012).

The field of neuromarketing was pioneered in the late 1990s by Gerald Zaltman and Stephen Kosslyn who proposed a union of brain-imaging technology with marketing. In 1995, Zaltman patented the Zaltman Metaphor Elicitation Technique (ZMET), a market research tool, that uses a set of selected images to determine if they achieve a positive affective response in the conscious and unconscious states of consumers, and thereby, motivating them to buy the product (Fisher, Chin & Klitzman 2010). Since its development, Zaltman's ZMET has gained popularity in the global marketing industry and it has been employed by such major client-companies as Coca-Cola, Proctor & Gamble, Frito-Lay, Audi, Kraft, and Cisco. As Zaltman described it, "A lot goes on in our minds that we're not aware of. Most of what influences what we say and do occurs below the level of awareness. That's why we need new techniques: to get at hidden knowledge-to get at what people don't know they know" (Pink 1998, 216). Indeed, neuromarketing is based on a model that assumes that most of the brain's cognitive and affective activities (well over 90%) occur in a region well below conscious awareness and value judgments are made in the first couple of seconds of exposure with the marketing stimuli. For this reason, researchers are most interested in discovering techniques to influence the unconscious areas of the brain in order to arouse and elicit a positive response from the consumer's perception of the marketing stimuli.

Similarly, Cobb's team uses the latest technologies to delve deeply into an unconscious mind in order to manipulate a subject's perception. While the team's mission involves the

science fictional immersing of its subject (Fischer) into multilayered constructed dream states and spaces, the team and neuromarketing researchers do share some commonalities. Both the team and researchers carefully construct an environment and select stimuli to influence a persons' perceptions and ultimately, their behavior. In the case of neuromarketers, it is to find the right stimuli that connects to a consumer's unconscious thoughts or images and thereby trigger him or her to buy the product or service. For the team, it is constructing a suitable environment (or environments) to successfully implant a specific idea or stimuli that will function to alter Fischer's perceptions and foster him to break up his father's corporate empire. Similar to neuromarketing research, the team employs computer-brain interfaces and physiological monitoring to read and influence the subject's brain activity. Despite the science fiction and dream state aspects of the film, Cobb's team is representative of a contemporary neuromarketing team with Saito as the client, Cobb as the marketing manager, Ariadne (Ellen Page), the designer, Arthur (Joseph Gordon-Levitt), the research analyst, Yusuf (Dileep Rao), the technician, Eames (Tom Hardy), the spokesperson, and Fischer as the target audience with whom the marketers hope to persuade.[1]

In *Inception*, Cobb determines that in order to persuade Fischer to accept the repellent idea of splitting up his father's business empire, he must translate the idea into a positive emotional concept deep in his unconscious. As Cobb states the unconscious "is motivated by emotion...not reason." The team decides to focus on Fischer's troubled relationship with his father and follow a two-step process: first, Fischer must accept the idea that he will not follow in his father's footsteps and second, that he will create something for himself. The team's task of translating a "business strategy into an emotion" is the central goal of neuromarketers. Neuroscience

literature has found that emotional or affective processes in the brain tend to dominate conscious cognitive reasoning. R. Mark Wilson, Jeannine Gaines, and Ronald Hill (2008) explain that "even if consumers are made aware of the affective response, it is very difficult for them to override the affective influence without cognitive reasoning" (393). In fact, cognitive processes may not be able to finalize a decision without a "go or no go" message from the emotional center of the mind. Further studies find that emotion strongly affects the memory of visual stimuli and images in the brain. In a well-known 2004 study involving Coke vs. Pepsi, 67 people had their brains scanned while being given a blind taste test of Coca-Cola and Pepsi. While the taste test showed that Pepsi should have half the market share, the brain scans revealed that three-quarters of the people preferred Coke not based on actual taste preferences but rather because Coke was strongly associated with their stored mental memories and experiences of the Coke brand (McClure et al. 2004).

For film-goers, *Inception* is an intriguing suspense film featuring futuristic technologies that enable the protagonists to invade the consciousness of a man. The film's narrative focuses on the emotional, redemptive story of Cobb as he grapples with excessive guilt and traumatic memories of his deceased wife and the children he left behind in America. Drew Winchur (2012) argues that the film performs an effective narrative sleight of hand by centering the audience's attentions on Cobb's mental state and emotional journey while bypassing the host of ethical dilemmas associated with violating and manipulating Fischer's consciousness without his knowledge or consent. Winchur asserts that the most disturbing facet of the team's trespassing into Fischer's mind is the way they corrupt his precarious relationship with his father—falsifying a private bond between son and father—all in the name of benefitting Cobb's personal agenda and

increasing the profits for Saito's multinational corporation. Beneath its standard personal redemptive narrative, *Inception* can be seen as implicitly "legitimating the routine and far-reaching violence used to sustain corporate empires" (Winchur 44). Winchur contends that the film, whether by intentional design or not, serves as a propaganda vehicle for reinforcing the hegemony of corporate power.

In a similar fashion, the practice of noninvasive neuroimaging or fMRI in neuromarketing brings with it a complex set of ethical dilemmas. Through the use of neural brain scanning, researchers are able to isolate systems of neurons associated with functions of the brain. Wilson, Gaines, and Hill (2008) state that neuroimaging techniques are used in two different types of neuromarketing consumer research approaches. One approach involves measuring the brain activity in the unconscious affective areas in the brains of a subset of consumers purposely exposed to various types of marketing stimuli. The measurement results are then used to refine the marketing stimuli. The subset is then exposed to the refined stimuli and if successful, the consumers, through their cognitive and affective processes, form an attitude toward the brand or product. If neuromarketers are successful in activating the affective mechanisms in the brain, the consumer should have a positive attitude toward the product, and this will invariably lead to "a behavioral intention to buy, and ultimately purchases the item in question" (Wilson et. al 2008, 397).

The second approach is to direct neuroimaging techniques only at individuals and to design marketing attempts targeting them based upon their brain scans. For instance, a retailer may neuro-screen potential buyers entering their store, constantly scanning and monitoring their

individual brains, registering and storing reactions, and continuously altering marketing stimuli, such as a point-of-purchase virtual discount offer, so it will have the desired effect on the customers. The result may be similar to the mall scene in *Minority Report* (2002) in which shoppers are "identified" through retinal scans whereby they receive personalized marketing pitches directed to them ("John Anderton, you could use a Guinness about right now") or inquiries about a recent purchase ("How did those assorted tank tops work out for you?"). Wilson, Gaines, and Hill (2008) argue that individual brain scanning present us with the utmost ethical concerns about personal awareness and consent, not to mention privacy issues such as who ultimately owns brain scans, whether they can be sold to persons or institutions, and what happens to extraneous data, such as health issues, that are embedded in brain scans. Since neuroscience has proven that biology has an overwhelming influence on decision making and behavior, neuroimaging equipment that monitors and reads consumer brains with or without their permission or knowledge may represent a genuine threat to individual free will. Because of the potential restrictions to consumer free will and invasions of privacy associated with neuroimaging technologies, Wilson and others (2008) assert that government and academic communities must give these new technologies their greatest attention. Ultimately, they argue that the rapid growth of brain scanning data, along with its collection, assessment, and distribution among a range of institutions, sets new grounds for ethicists, researchers, and legislators interested in protecting consumer and individual rights.

Nolan himself is no stranger to marketing strategies, especially viral marketing campaigns, which are usually understood as subordinate subsets of neuromarketing. Viral marketing refers to marketing techniques that use exiting social networks and other

technologies to increase product awareness and to encourage consumers to share product information with their friends. The term "viral" acknowledges that certain ideas in a viral marketing campaign are designed to spread like viruses throughout a variety of social networks (Girboveanu & Puiu 2008). Viral marketing can take the form of interactive games, websites, video clips, advergames, ebooks, text messages, and email messages. For Nolan's 2000 film *Memento*, the story of Leonard, a man with anterograde amnesia, which makes him unable to store short-term memories, who must rely on a system of hand-written notes, tattoos, and Polaroid photographs to recall daily events, the viral marketing campaign consisted of a multilayered website that provided further clues and hints of the film's story without providing definitive information. The campaign also sent out messages to a random number of people with the image of a bloody, shirtless Leonard pointing at a specific spot on his chest (Mottram 2002). Nolan expanded the complexity of his viral marketing campaigns for his 2008 Batman film *The Dark Knight* with the Joker's "Why So Serious?" tagline and a fictional political campaign for Harvey Dent (Readon 2009), and his 2012 sequel *The Dark Knight Rises*, which featured a website whereby each Twitter message to it removed a pixel that revealed an image of the villainous Bane (Clark 2011). *Inception*'s viral marketing campaign featured a morphing website, which included an image of a spinning top, an image of Cobb's personal totem for him to ascertain whether he is experiencing reality or is in a dream state, and "Mind Crime," a maze game where a player can design his or her own maze or play a maze designed by other players. The game served as a portal to release film posters and images from the movie (Hass 2009).

While one might argue, as Winchur does, that *Inception* is a tacit homage to capitalist power, nonetheless the film can be read as Nolan's insightful and rueful acknowledgement that movies themselves have become elaborate viral marketing schemes or centerpieces for marketing an array of ancillary products such as ebooks, videogames, music albums, toys, and ring tones for the global entertainment conglomerates. John Caldwell (2008) contends that big-budget feature films, like *Inception*, function as "semiotic cluster bombs" because several "media formats precede a film's release (electronic press kits and the broadcast 'making of' specials) and several formats follow the ever shorter period of the film's release, " such as the film's official websites and various other social networking activities (306-307). Whether fictional, as in *Inception*, or non-fictional, as in neuromarketing, both techniques involve intruding into private minds in order to corporatize them for capitalist intentions. Given Nolan's viral marketing experience, his narrative interest in memories and mental states (*Memento*, *Inception*), and the film's focus on trespassing and altering inner consciousness, *Inception* can be seen as a film that critically highlights the inherent social risks and the inevitable trajectory of memetic engineering, neuromarketing, and brain scanning technologies—the increased rationalization and corporatization of the unconscious mind to increase marketing efficiencies and to advantage existing power structures.

Notes

[1]Another popular interpretation of the film, if the Internet can be deemed a site for assessing popular opinion, is that *Inception*'s story is really about the filmmaking process whereby Cobb is the director, Aridane, the screenwriter, Arthur, the field producer, Yusuf, the technician, Eames, the star actor, Saito, the money guy or studio executive, and Fischer, a surrogate for the film audience. Interestingly, Mal, Cobb's deceased wife, is cast as his impulsive and unpredictable muse, the troublesome source of his filmic creativity. This interpretation is best attributed to Devin Faraci in his article "Never Wake Up: The Meaning and Secret of Inception." My interpretation does not completely discount such an interpretation rather it attests to the textual richness of Nolan's film and its inherent capacity to engender a range of critical interpretations and readings.

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