

Slipping Under the Radar: Advertising and the Mind

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Synopsis: The technology of electronic media and the art of advertising have combined over the past 60 years to create very powerful tools of influence. These tools have proven to be capable of shaping attitudes, values and behaviors of large numbers of people. This paper explains the power to influence in the context of recent discoveries in brain science. In addition, comments are made about adopting these techniques to promote a public health agenda.

I. The Power of Media.

In the early 1970s, government and business leaders in Mexico were confronted with a serious problem. The world economy was shifting to an information economy making the ability to read and write more important than ever. At the same time, rates of adult literacy remained stubbornly low in many Mexican workplaces. After several failed initiatives, Miguel Sabido, the producer of a very popular television program decided to try an experiment. For a number of months in 1973 Sabido wove pro-adult literacy messages into the plot of his top-rated program. Most of the messages came out of the mouth of the favorite male lead character. In the twelve months following that experiment, registrations in adult literacy classes across Mexico increased by an astounding 800%. That's influence!

This paper will attempt to explain how and why media messages are as influential as they are. Indeed a multi-billion dollar worldwide advertising industry is predicated on media's ability to shape attitudes and values and to change behavior. The explanation begins with a description of how the human brain works.

II. The Amazing Brain.

A baby arrives in the world with about 100 billion neurons and over 100 trillion possible dendritic connections. Recent estimates reveal that only about 17% of the "wiring" has been completed at birth.¹ In the weeks, months, and years that follow, billions of neurons connect with one another forming the neural framework of the brain. Like wires through which electricity flows, neural networks support a child's mental and emotional capabilities for a lifetime.

There are two forces driving the wiring of the growing human brain: genetics and experience. Genetically determined information encoded in the DNA will establish the arrangement of certain neurons. I like to think of this as

the “hard wiring.” In addition to this there is the “soft wiring,” the networks shaped by the experiences we have. For example, one of the countless brain functions that develop early in life is language. Consider the brains of two children, each learning language in a different part of the world. Each will use the brain’s same physical hardware to acquire language skills. But each will develop different neural language networks based on the unique experience of learning French or Swahili or any other language.

The debate over whether nature or nurture is responsible for the wiring is fading. It is becoming more and more clear that nature *or* nurture is a false dichotomy.¹ The wiring of a child’s brain is shaped by the constant interplay between nature *and* nurture. Although some of the wiring is genetically determined, experience clearly plays a major role in building the brain that will eventually drive the vast array of mental capabilities. Truly, the neurons that fire together wire together.

Although we are forming new neural networks until the day we die, we never do it at the same rate as we do when we are young children. A two-year-old child, for example, burns more than twice as many calories in the brain as an adult does.² The reason, of course, is that the major construction of the neural circuitry is taking place during the early years of life.

While the many components of the brain operate together in a coordinated manner, it is often helpful to examine the individual brain systems separately. I find it helpful to consider the “triune brain,” referring to the three main brain systems, that scientists most often consider.³ The brainstem governs physiological functions like temperature regulation and heart rate—functions necessary for survival. The limbic brain is the seat of emotion. The third brain system, the cortex, governs the “higher order” brain functions, like language, pattern recognition, and reasoning.

While all functions of the brain are important, I would like to pay particular attention to the role of the limbic brain, or emotion, in the workings of the mind. For reasons that will be clear later, advertisers aim for the emotional centers of the brain. Since that is the case, then to understand the effectiveness of media in influencing people we need to keep in mind the critical roles that emotions play.

Neuroscientists like Antonio Damasio and Joseph LeDoux have shed a great deal of light on the critical roles that emotion plays in the brain.^{4 5} In his book, *Descartes’ Error*, Damasio declares that the French philosopher may have erred when he came up with his famous dictum, “I think, therefore I am.” Had Descartes understood the central role that emotions play in the workings of the mind, he may well have written, “I feel, therefore I am.”

1. Emotion focuses attention. Emotion serves as the “early warning detection system” for the rest of the brain. This role is rooted in the evolutionary development of the brain and is linked to survival. Emotion sends a message to the brain saying in essence, “Pay attention. This is important.” Therefore the best way to get someone’s attention is to stimulate a strong emotional response.

2. Emotion is a major determinant of what we remember. Although we can store facts and other information in our memories, the experiences that generate the strongest emotions are the ones that are stored most easily and most clearly for many years.⁶ Millions of people around the world, for example, will recall for the rest of their lives where they were and what they were doing on September 11, 2001. The reason, of course, is that the events of that day stirred powerful emotions.

3. Emotions are an essential ingredient in the development of attitudes. Attitudes are facts linked with emotion. Attitudes in turn influence our choices, decisions, and behavior on an ongoing basis.

4. Emotions are the basis of motivation. Daniel Goleman, author of *Emotional Intelligence*, points out that it is not a coincidence that the words emotion and motivation both come from the same Latin root verb meaning “to move.” In order to motivate someone we must move them emotionally. And motivation most often produces action, or movement.

5. The link between emotion and behavior is a tighter link than that between thought and behavior. Charles Darwin described how a person observing a poisonous snake from a safe position behind a thick plate of glass will jump back if the snake suddenly lunges toward the glass. The puzzling question this raises is, “Why would someone jump for safety if he *knew* he was already safe.” Joseph LeDoux has discovered the explanation for this universal behavior. It turns out that our brains are wired to take a short cut. The short cut connects directly to the motor neurons initiating behavior. Importantly, the shortcut is stimulated by emotion. In the presence of strong emotion we react before we even comprehend why we are reacting.⁵

In summary, emotion focuses attention, determines what we remember, shapes attitudes, motivates, and moves us to act. It should not come as a surprise, therefore, that the emotional centers of the brain become the primary target for marketers and advertisers. This list of the roles that emotions play could easily be mistaken for an advertiser’s wish list. What advertiser would not want to capture a customer’s attention, implant the message in his memory, shape his attitudes, motivate him and change his behavior? We will address this in greater detail later.

Up to this point, we have highlighted three major points about brain development and function. The first is that experience plays a key role in how a

child's brain gets wired. Inputs from all childhood experiences, therefore, are sculpting the finer elements of the neural networks. The second is that the lion's share of the wiring happens in the early years of a child's life. These first two points explain why children's minds are so impressionable. They also help us understand why young people are so susceptible to outside influence, expertly crafted advertisements, for instance. The third point is that emotion plays a leading role in how the mind works. With these three points in mind, let us turn our attention to the effects of marketing and advertising on children and youth.

III. Advertising and the Limbic Brain

My daughter Erin and I were watching television during a holiday season when an advertisement caught our attention. We saw images of a sleigh being drawn by horses through snow-covered woods. A house with a wreath on its door stood on a small hill. The next scene showed friendly faces exchanging gifts around a fireplace. Since we didn't yet know who the advertiser was, we began to guess based on the images we were seeing. I thought it was a greeting card company while Erin's guess was beer. We were both wrong. In the final seconds of the ad, with the image of an airplane floating above billowing clouds, a soothing voice intoned, "American Airlines. Bringing friends together for the holidays."

Did this very effective commercial appeal to the cortex of the brain, to reason? No. We received no information about the airline's safety record, the training requirements of personnel, or engineering specifications. Instead, the images in this commercial went straight to the limbic or emotional brain centers. The ad appealed to our sense of well being and our nostalgia about home, family, dear friends, and the holidays. And it worked. Both Erin and I felt good about American Airlines after watching the commercial.

Advertising messages aimed at the limbic brain stimulate emotional reactions that affect the way we perceive the product that is being linked with our feelings. This is how emotional reactions begin to influence our attitudes and values. My daughter and I had an emotional response that affected our attitude about the product being sold before our cortical brain even knew that American Airlines had produced the commercial.

Because emotional responses don't engage our reason, they can easily slip in undetected under the radar of critical judgement. Then they subtly but powerfully begin to shape the way we view the product without our even being conscious of the process.

Researchers have devised some clever studies to show this in action. For example, Robert Zajonc conducted an experiment wherein a series of simple line drawings were shown to viewers in rapid succession. From time to time an

image of either a smiling or a frowning face was inserted into the succession of images. The faces came and went so rapidly that the viewers did not have time to register them in their conscious minds. Since they were not aware of the flashing faces they had no recollection of having seen them. Despite this, those who participated in the experiment said that they preferred the geometric line drawings that had been paired with the smiling faces over those that followed the frowning faces. In spite of the fact that the viewers' conscious minds were never even aware that the faces were present in the experiment, their preferences had been shaped by emotion.⁷

I am not suggesting that advertisers are engaged in a subversively planned thought control program to control our minds. Rather, they have learned that there are highly effective techniques they can use with great skill to motivate consumers to change the way they feel about products and messages. And when they are successful, we will, without being aware that we've been influenced, change the way we behave. Does this mean that my decision to change my toothpaste from brand X to brand Y is based on a harmful process? No. It means that it is based on a powerful process. However, for purposes of this discussion, it is important to realize that the same process can attract children and youth to either healthy or harmful products and can influence them to engage in either healthy or unhealthy behavior. The process is blind. The manipulators of the process are not.

The art of advertising is difficult to master and it takes a great deal of skill and creativity to achieve proficiency. However, the underlying psychological principles are quite simple. The most effective advertisements create an emotional state. Once the desired state is achieved the product or message is then linked to the state. Sometimes the examples of this are quite clear. Viewers seeing a television ad for the first time may not know what the product is until the very last seconds of the ad. The reason is that the first 28 seconds of the 30-second ad are used to create the mood. Once the mood is set, then the product is introduced and the emotional association is made. A synaptic bridge in the brain has been constructed.

The most effective ads are not informational, but emotional. In some cases, the feelings evoked by the ad may have no logical connection to the product whatsoever. No matter. As long as the desired emotion is linked with the product, the mission has been accomplished. It has been accomplished because of the critical roles, which we discussed earlier, that emotion plays in the workings of our brains: attention, memory, attitudes, motivation, and behavior.

IV. Conscious and Unconscious Processing

One of the most confounding problems facing neuroscientists, psychologists, and philosophers alike is the mystery of consciousness. I use the term “mystery” purposefully, because consciousness proves to be quite elusive when we attempt to locate it in the brain or even define exactly what it is. Entire books written on the subject raise more questions than they provide answers. Competing theorists are usually more successful at critiquing their adversaries than they are in solving the mystery themselves.

Having said this, I would certainly never presume to attempt to explain consciousness myself. However, I would like to discuss one aspect of it: attention. If consciousness is the dwelling of the mind, attention is the window into and out of consciousness. Just as in a stage production there is a great deal of activity behind the curtain, the audience pays attention to what is illuminated by a spotlight. In the human mind attention is the spotlight of consciousness.

The brain is always actively scanning the environment and monitoring a wide array of physiological, sensory and mental functions. Most of this activity occurs outside our conscious awareness. Indeed of all the brains operations, the spotlight of attention only focuses on a small segment of activity. When the brain has to deal with something novel, that becomes the focus of attention. So, for example, when I am having a conversation with someone, there is usually no way to know what will be said next. Almost all conversations, therefore, are unique. Because each is novel, the brain focuses attention on the processing necessary to carry out the task of conversing. We experience this as “paying attention.” Other examples abound. When learning to drive a car, I need to “pay attention” to every aspect of driving because the task is novel and complex. Solving a mathematical problem implies finding a solution to a novel set of variables. If there is no novelty, then it would not constitute a problem.

While the ability to focus attention is a remarkable feat, what is even more amazing is all that the brain is able to process *outside* the spotlight of attention. The brain is so powerful that it enables us to perform astoundingly complex tasks without having to “pay attention.” While the new automobile driver has to “pay attention” to every move, that same driver, once he has years of experience, will be able to drive from one end of the city to the other in heavy traffic without even thinking about it. He might be carrying on an interesting conversation with a friend without realizing that he is simultaneously accelerating, decelerating, braking, turning, shifting gears, and solving complex physics problems involving velocity and trajectory. Many of us have had the experience of driving long

distances lost in thought and unaware of all the complex tasks we are carrying out on “automatic pilot.”

I like to refer to unconscious processing as the brain’s ability to take “mental shortcuts.” So for example, when I enter a familiar room, which is dark, I will reach out and turn on the lights without paying any attention at all to the task I just performed. In other words, my brain enabled me to continue my train of thought while simultaneously illuminating the room by manipulating a switch with my fingers. The ability of the brain to do this creates great efficiency because it enables us to perform multiple tasks at the same time. If the brain were not capable of unconscious processing, then we would be limited to accomplishing only what we were paying attention to at the moment.

There are two types of mental short cuts that our brains take. The first type is the shortcuts that are “hardwired” right into our brain. We don’t have to learn this type. We are already genetically equipped with the shortcut. For example, infants will automatically tune into their mothers’ faces to pick up cues about a confusing or alarming situation. The cues will help them appraise the situation and will shape their responses. Infants do not need to be taught to do this.⁸ It is a mental shortcut that is built into the baby’s brain.

The other type is the learned shortcut. The example described above, turning on the lights in a dark room, is a case in point. I wasn’t born knowing how to turn on lights. Somewhere along the line, however, I learned that I can illuminate a room by manipulating a switch on the wall. My first attempts to accomplish this task demanded my full attention. Eventually, after many repetitions, the mental processing needed to switch on the lights became automatic. In other words, it no longer demanded the brain resource we call attention.

The brain’s ability to perform unconscious processing, or as I call it, taking mental shortcuts, is what supports the great Swiss psychologist, Jean Piaget’s famous aphorism, “Intelligence is what we use when we don’t know what to do.” Most of the time we know what to do. We go through the day performing thousands of complex brain tasks without ever paying any attention to them. It is only when we encounter something novel that we shine the spotlight of attention on the task at hand. So, to return to our example, most of the time I turn lights on and off without paying any attention, on autopilot, so to speak. It is only when the lights don’t go on that I have to pay attention and use my intelligence. I then have to figure out the reason. Is it a broken switch, a blown fuse, a power failure, or any one of a number of other possible explanations? Most of the time, however, I am turning on lights taking advantage of the brain’s power to take mental shortcuts.

These mental shortcuts help us understand some interesting human behavior. In the 1950s social psychologists in the United States conducted a

telling experiment. They had a young male colleague cross the street against the traffic signal under two different conditions. Half the time he was dressed rather shabbily while in the other half he was dressed as a professional in a suit and tie. The scientists recorded the results from a hidden viewing station. The difference was striking. Pedestrians followed the lawbreaker in a suit across the street at a rate 350% higher than the rate at which they followed the slovenly dressed scofflaw.⁹ Interpreting this finding in the terms of this discussion, it appears our minds are wired to take a shortcut. In this case, the shortcut is, “when someone looks like they know what they are doing, follow them.”

What is important to remember in this example is that it is doubtful that any of the unsuspecting pedestrian-subjects consciously considered what they were doing. It is highly unlikely that they thought, “This person is knowledgeable and competent because of the way he is dressed, therefore I will follow him as he breaks the law.” It is much more plausible that they did all this processing underneath the radar of attention and critical judgement.

The object of all this is to make a very important point about influence. It is what I call the “golden rule of influence.” *The most effective influence is when the person being influenced doesn't know it is happening.* In other words, knowledge of the common mental shortcuts enables a person to exert a tremendous amount of influence. In fact, there is an entire industry dedicated to the art of science of taking advantage of the shortcuts: advertising.

V. Advertising and Unconscious Processing

Advertising is the art and science of influence. The last thing in the world an advertiser wants the potential customer to do is to think. In fact, skillful advertisers will do everything possible to have the consumer avoid critical thinking. They want the message to “slip in underneath the radar of critical judgment” to achieve the greatest results. We saw earlier that one way advertisers do this is to make liberal use of emotional messages and images. A second important way is to take advantage of the brain's unconscious processing. While most advertising professionals may not know the brain science behind their craft, they do have an instinctive sense of the strategies that take advantage of mental shortcuts. Here are some examples.

Authority. There is a tendency in all of us to accept the advice or direction of someone we consider to be an expert in a particular field. We unconsciously assume that the authority knows more than we do and that therefore their suggestions should be heeded. I am likely to pay more attention to the investment advice of a well-known successful businessperson than to someone who doesn't look and sound prosperous. If I want to sell sporting goods, I would be wise to have a sports hero endorsing rather than the person down the street.

Not everyone has the same notion of what constitutes an expert. Therefore, savvy marketers and advertisers do research on their target audience, the consumers they are trying to influence, invests with credibility. They don't presume to know whom their target market regards as trustworthy.

Identification. Whenever any of us likes and admires someone a great deal, it is not unusual for us to begin to identify with him or her. We like them so much that we want to be like them. Children and youth are particularly prone to identification because they are in the process of forming their own identity. Children will wear the same clothing their sports heroes wear. Youth will pierce their bodies or begin to imitate the language patterns of their music or entertainment idols. In extreme cases some young people have even copied suicide behavior in an effort to be one with the person whom they hold in awe.

Marketers and advertisers take advantage of this mental shortcut all the time. When Gatorade wanted to sell its sports drink to youth, whom did they show gulping it down? Michael Jordan of course. They didn't even attempt to camouflage what they were doing. They told us right in the adverts that every kid in the world "wants to be like Mike."

Contrast. When we make a judgment about something we are often measuring it against an unconscious standard. People in equatorial countries have different cultural norms for what constitutes hot and cold than people who live in higher latitudes have. Mass media are especially powerful in influencing what those cultural norms are.

Anne Becker's research in Fiji provides a clear example of this power. For centuries the standard for feminine beauty in Fiji was big. "Going thin" was a sign that the person was not getting enough to eat and was a problem that women (and men) in Fiji wanted to avoid. Until television arrived in 1995, that is. Within 38 months 74% of teen girls said they considered themselves fat, 62% were dieting, and purging for weight control had increased 500%.¹⁰ What happened? Almost overnight television had redefined the standard, and the girls and women of Fiji were subject to the contrast effect. Compared to the standard, which had been redefined by TV, they considered themselves unattractive.

Humor. One function of humor is that it relaxes our critical thinking.¹¹ If I am talking with an insurance salesperson while I am in a bad mood I am more likely to ask critical questions and to read the fine print. If, on the other hand, I am laughing and in a jovial mood, I am less likely to be suspicious or on my guard. Every good salesperson instinctively knows this, and the best salespeople are very adept at putting people at ease and in a good mood. It is not surprising, therefore, that advertisers use humor a great deal in plying their craft. A funny message is more likely to slip in underneath the radar.

Exposure. Repeated exposure to an image or message creates familiarity, which translates into comfort and eventually to preference. Politicians know the power of name recognition and go to great lengths to expose voters to their name and picture as many times as possible. In a convincing experiment, subjects were exposed to pictures of people so quickly that they had no conscious awareness of having seen them. Nevertheless, when they were later introduced to a number of people, they reported a clear liking for those whose pictures they had already seen.¹²

This probably explains the effectiveness of billboards along highways. Why else would businesses be willing to pay handsomely to have their images and messages plastered on a billboard that viewers speed by too quickly to consciously digest the content.

Similarity. This is a cousin of the identification shortcut. We are more likely to copy the behavior and choices of people we consider to be like ourselves. Whereas the approach we discussed earlier makes use of heroes and idols, the similarity shortcut is the basis for the “ordinary people” approach. While this shortcut works on all of us, it too is particularly powerful with children and youth. Young people are much more likely to follow the lead of another young person.

This list is illustrative, not exhaustive. Our minds take more shortcuts than these, but the examples of the shortcuts listed above begin to explain how marketing and advertising takes advantage of unconscious processing in order to influence the target audience. In addition, there are many other technical factors that sway us without registering on the radar of conscious awareness. Color, camera angles, lighting, pacing, and many other factors all have an effect. Music provides clear evidence. Different types of music not only affect the mood of the listener but their preferences as well.¹³

VI. Summary of Major Points These are the major points made so far in this paper.

- The experiences that children have early in life exert a profound ability to literally shape the wiring of the neural networks in a child’s brain.
- We often consider this fact when discussing “obvious” brain functions like vision or language. We need to realize that the same process is at work in the development of attitudes and values. Just as there are neural networks forming in the brains of young children that will eventually be the basis of vision and language, so also there are networks forming that are going to be the basis of attitudes. Those attitudes, in turn, will be the driving force behind behavior.
- Although we are forming new neural networks until we take our last breath, we are never doing so at the same high rate that we do as children. The lion’s share of the wiring is happening in the early years

of life. For that reason children and youth are most susceptible to influence. Their brains are more malleable and their attitudes are more fluid.

- Emotions play critical roles in how the mind works. Emotion focuses attention, influences memory, shapes attitudes, motivates and drives behavior.
- Most of the brain's processing happens outside of our awareness. As a result, we can be influenced by factors that are outside our conscious attention.
- The most effective influence occurs when the person being influenced is unaware he is being influenced. He is not able to bring the resources of critical judgment to bear because no alarm system alerts him to do so.
- Marketing and advertising industries target emotion and mental shortcuts because those techniques are most effective in influencing behavior.

VII. Two Case Studies

Having described how marketing and advertising work, let's examine two examples that demonstrate how effective these techniques can be. In addition, both examples are particularly relevant to the health of children and youth.

Joe Camel.

In 1988 R. J. Reynolds Tobacco Company executives were concerned that their brand, Camel cigarettes, was losing market share to rival Marlboro. They were determined to reverse the trend and so started to plan an extensive marketing and advertising campaign. Consider for a moment the challenges that these advertisers faced.

- They had to sell an unattractive product that stained teeth, caused bad breath and killed people.
- They could not use radio or television advertising since it had been made illegal in the U.S. in 1971.
- They had to replace the 400,000 customers their product killed every year in the U.S. just to maintain their current level of sales.
- They had to sell to children since they knew from their research that if people don't begin to smoke by age eighteen, there is only a one in five chance of ever beginning.
- It was illegal to sell to young people, their target market.

In the face of these overwhelming obstacles, they launched their new campaign. It was centered around a cartoon character named Joe Camel. Joe showed up on billboards, shirts, posters, and the sides of buses and trains. It was hard to miss him in magazines and all sorts of other displays. When Joe Camel arrived on the scene the sale of Camel cigarettes to youth eighteen and

under generated \$6 million in revenue per year. Within 24 months, that figure stood at \$476 million.¹⁴ Children were more likely to be able to identify Joe Camel than the ubiquitous Disney character Mickey Mouse.¹⁵

Frogs Sell Beer

Children in the U.S. watching an average amount of television view almost 2,000 beer ads each year.¹⁶ These beer advertisements portray drinking as a normal behavior with no adverse consequences. Many are award-winning ads making liberal use of the strategies discussed in this paper. Along with some colleagues I conducted a study in 2000 to determine the effectiveness of these commercials on students in the seventh through twelfth grades. We surveyed 1,588 students from several junior and senior high schools in two states. Correlation analyses were performed to determine whether the amount of money spent by beer companies to advertise selected beer brands would predict students' responses regarding brand awareness, preference, use and loyalty. We found that they did. The beer companies that spent the most money on advertising had the highest brand awareness, preference, use, and loyalty. Correlations for each of these ranged from 0.63 to 0.79 with the highest correlation between advertising budgets and adolescent drinking.

Regression analyses were conducted to determine the strength of a number of different predictors of teen drinking. We found that many types of variables contributed, including peer pressure and parental modeling. While each of these, as well as others, is an important predictor of drinking, media-related variables accounted for a full 21% of the variance. Junior high and high school students know about, prefer, and drink the most heavily advertised brands of beer.¹⁷

VIII. Implications for Public Health

Medical and public health professionals are as committed to the prevention of disease and injury as they are to the treatment. As a result, a great deal of effort, resources and money have been and continue to be expended in an effort to increase knowledge about health and to promote healthy behaviors and lifestyles. To achieve that goal, the traditional approach has been to provide valid and reliable information through teaching, publishing, and consulting. The assumption underlying that approach is that accurate knowledge will lead to healthy choices, that is to say, knowledge will motivate behavior change.

This paper challenges that assumption. In doing so I do not intend to denigrate traditional educational efforts. Rather, my goal is to enlarge our

understanding of how behavioral change occurs. We know commercial marketers and advertisers largely eschew cognitive approaches in their efforts to influence and change behavior. They have honed strategies and methods that favor emotion over reason. They use techniques that work their magic outside the spotlight of consciousness. What is most important to realize is that their techniques are remarkably effective. I doubt that many advertising professionals understand why their methods work. By trial and error and research they have gravitated to the techniques that produce the results they want. Most are content to leave the explanation for why they work to the academics.

Advances in neuroscience and psychology over recent generations are beginning to help us better understand the underlying dynamics of influence. We are now in a position to begin to use those insights to develop strategies that can influence positive change and promote better health habits.

Children all over the world are exposed to an ever-growing number of commercial messages coming to them through electronic media, especially electronic visual media. Children in North America, for example, spend more time watching television than any other activity of their lives except sleeping, including attending school. Both the programs and the commercial messages exert a great deal of influence. If the images and messages on the screens, billboards, and in print were not effective at influencing, then the enormous worldwide advertising industry would be a giant hoax. It isn't. The images and messages do influence.

The messages of advertisers are everywhere. From the moment we wake up in the morning until the moment we fall asleep at night, we are bombarded with thousands of their messages. They jump off the wrappers of food items. They scream at us over the radio waves. We see them on massive billboards as we travel from town to town. Every single one of these advertisements is the product of a great deal of thought, planning, and execution. Every single one is intended to shape our attitudes and to change our behavior.

Advertisers and marketers are increasingly targeting children and youth with the technology of persuasion. The reasons are threefold. First is the size of the youth market. The second is its growing economic influence. The third is the race to establish brand loyalty before a competitor does.

With some exceptions, the primary goals of marketing and advertising do not include child welfare. The overriding goal of most marketing and advertising is to maximize profits. As the character Gordon Gekko says in the movie *Wall Street*: "It's all about bucks, kid. The rest is conversation." Indeed the tobacco industry has employed the techniques of persuasion to influence children to adopt a habit that will kill millions of them.

In the United States, we've begun to see groups using traditional commercial advertising techniques to communicate messages promoting healthy behavior for young people. For example, groups who educate teens on the dangers of tobacco, use television adverts that are funny, frightening, and edgy. One such ad involves kids bringing bulging body bags to the beach to demonstrate the large number of people who die each year because of lung cancer. Another follows two teens documentary-style as they sneak into a convention for tobacco company executives and proclaim, loudly, that cigarettes contain a chemical that is found in urine. Rather than explaining the health risks associated with tobacco use rationally, these adverts cause the teens that see them to associate strong emotions with a particular behavior. In this case the behavior is *not* using tobacco.

There is a small but growing body of research showing the effectiveness of appropriating the emotionally charged techniques of commercial advertising. This new style of public service announcement can be much more effective than the old style that employed logic and facts. The most important aspect of these ads is how they look and feel. They are virtually indistinguishable from the other edgily communicated messages on commercial media. And so in the midst of other adverts, they aren't particularly noticeable—which is of course the point. The slip right under kids' radar, and into their brains, whether these young viewers are conscious of it or not.

Those in the public health field who have the health of children and youth as a priority can learn some valuable lessons from commercial marketers and advertisers. They would do well to study how they can adopt the strategies and techniques that are so effective as a way to promote better health and welfare for the children of the world.

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