# 12

# THE SUBLIMINAL PERSUASION CONTROVERSY

Reality, Enduring Fable, and Polonius's Weasel

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The subliminal "air-raid" alarm was turned on in the late 1950s (Cousins, 1957; Packard, 1957) and the sirens never stopped wailing; there has never been an "all clear!" Instead, popular belief in subliminal manipulation, and corresponding fears, have steadily increased (Block & Vanden Bergh, 1985; Synodinos, 1988a, 1988b; Zanot, Pincus, & Lamp, 1983). The writer and lecturer most responsible for this trend is W. B. Key (1973, 1977, 1981, 1989). According to Key:

Subliminal indoctrination may prove more dangerous than nuclear weapons. The substitution of cultural fantasies for realities on a massive, worldwide scale threatens everyone in this precarious period of human evolution. Present odds appear to favor total devastation. (1989, p. xviii) What Effects Are Subliminal Techniques Alleged to Be Having on You?

What Effects Are Subliminal Techniques Alleged to be Having on You

No issue in the psychology of persuasion has elicited more continuing controversy than the alleged efficacy of subliminal or similar techniques. These techniques refer to any devices used to convey or attempt to convey a message by means of images or sounds of a very brief or hidden nature that cannot be perceived at a normal level of awareness. Have manipulative communicators been influencing you by using subliminal techniques?

- You are watching a movie at a local theater, and all of a sudden, you have a strong craving for popcorn; you get up and purchase a large bucket of popcorn with extra butter and devour it all despite the fact that you are on a diet! Was the movie altered so that certain frames, appearing too fast for you to consciously perceive them, suggested some word or phrase, such as "Eat popcorn"?
- During an argument one day with your mother, you say several cruel and belittling things, despite the fact that you do not really mean them. Were your cruel words caused by spoken messages (e.g., "Rebel!") hidden in the rock music you had been listening to earlier that day?
- You have been trying to quit smoking for months. Yet despite all of your best efforts, you cannot seem to resist your cravings for cigarettes. Is your compulsion to smoke partly due to the magazine advertisements you read and the billboards you see on the way to work? Do these displays have suggestive words or body forms (with sexual connotations) embedded in their pictures? Is the artwork for these prompts and suggestions so subtle that even an eagle-eyed detective would have to be given a hint or two to know what is happening? To illustrate, recall your last sighting of a Joe Camel ad or billboard. Do you think the camel's nose looks like a penis, and does the mouth resemble female genitals? That's what subliminal persuasion alarmist Wilson Brian Key (as cited in Bream, 1989, p. C1) would have you believe!

Scratchmarks on the Private Parts of the Human Mind

Thirty-seven years ago, in "Smudging the Subconscious," the editor of Saturday Review described a new device that "thrusts images or messages onto a motion picture or TV grid. The images are invisible to the human eye. They are 'subliminal'; that is, they are beamed into the mind below the threshold of awareness" (Cousins, 1957, p. 20). The device was alleged to increase popcorn sales at a movie theater by flashing "Eat popcornö and to alter perceptions of a face by projecting "Happy" or "Unhappy" subliminally underneath the face. If it is possible to affect yearning for popcorn or judgments of happiness, perhaps the device could be used to "break into the deepest and most private parts of the human mind and leave all sorts of scratchmarks" (Cousins, 1957, p. 20). The subliminal alarmists emphasized that what we do not see and what we do not know can hurt us. In the wrong manipulative hands, subliminal persuasion could be used to destroy the saintly reputation of a Mother Theresa or to enhance the "good name" of a Mafia hoodlum.

#### Rock Bands and Suicide

The parents of two men who killed themselves after listening to an album by the heavy metal band Judas Priest contended that the suicides were caused by a subliminal message. The message, contained in a song portraying a hopeless view of life, was "Do it!ö (Goleman, 1990). Testifying at the trial of the band, University of Michigan psychologist Dr. Howard Shevrin stated, "As I read the evidence, including my own work, the subliminal message

could have been a contributory cause to the suicide" (Goleman, 1990, p. B7). Although the Judas Priest band was acquitted, the final summary of the judge "found that subliminals were there but only found that they were unintentionally placed there" (Larsen, 1990, p. Cl). That is, the band was not held responsible for the potentially deadly effects of the subliminal messages. Thus, the Judas Priest verdict left open the possible relationship between a subliminal message and suicide. This possibility is the object of another current suit that alleges that another rock album, Blizzard of OZ, contributed to the deaths of two teenagers (Larsen, 1990, p. Cl).

### Subliminal Audiotapes and Human Improvement

The ability to cause evil that is attributed to subliminal messages is more than matched by their alleged ability to make things better and by the ensuing multi-million dollar self-help industry. Subliminal audiotapes are now widely marketed and advertised. They are sold in major bookstores, including those operated by many colleges and universities (Merilde, 1988). Consider a typical statement by a manufacturer:

You must understand... when you listen to these tapes, the only sound you will hear is the restful, pleasant splash of ocean waves as they break on the sandy beach, then go rushing back to join the sea. At least that is what you THINK you hear. But, beneath the gentle sounds of waves — inaudible to your conscious hearing, but loud and clear to your subconscious — are carefully researched words and phrases to soften and reverse your stubborn subconscious.

The volume can be set at any level — as long as you can hear the sound of the waves even slightly, your subconscious will pick up the embedded suggestions effectively. For best results use your tapes regularly, up to a maximum of four times per day. Since subliminals contain powerful self-programming suggestions, it is not recommended to play them when other people are present.

Just relax, watch TV, or enjoy your favorite hobby, as the tapes work secretly below the level of conscious awareness, to reach deep within your subconscious mind. You'll feel better, more relaxed, and confident about your life. As many as 85,000 positive suggestions (affirmations) can be transmitted in just one 60-minute cassette tape. This is why more Doctors, Psychologists and professionals choose [name of company). (Merikle, 1988, p. 356)

#### Taking Sides in the Controversy: Chapter Overview

Has the privacy of the human soul been breached without a fight? If so, how much is at stake? Is more involved than popcorn sales or a politician's reputation? More than the lives of susceptible teenagers? Does civilization teeter precariously on the menacing cusp of a subliminal mind-warp?

The other side of the controversy is the one adopted in this chapter, namely, that

subconscious messages are either entirely absent or too weak to work in the ways alleged. In addition to a selective review of the impact of messages outside of the focus of a person's awareness, in this chapter we will explain the psychology of belief in subliminal persuasion and why the belief will thrive indefinitely.

#### Introduction

Ironies surround research on subliminal effects. First, one of the interesting aspects of the history of subliminal research is that a researcher can initially find support for a subliminal influence. Even if other researchers fail to reproduce that effect, the popular media publicizes the dubious effect and the general public accepts the media's conclusion (Pratkanis & Greenwald, 1988). Moore (1982) argued that subliminal advertising could not be successful because (1) subliminal stimuli are usu- ally too weak to be observed, and even if they are observed, they would be overwhelmed by other stronger stimuli, and (2) people can control their own responses and can resist any attempts at subliminal influence. Ironically, Saegert (1987) notes that the public's fears of subliminal advertising are based on the assumption that it

is effective precisely because the stimulus is weak and because it can circumvent normal screening.... Conventional folklore maintains that these unnoticeable messages "take control" of consumers' minds and cause them to do things that they would otherwise forgo if their normal vigilance had not been circumvented. (p. 110)

Let us take a closer look at alleged subliminal inputs, beginning with subliminal sounds and ending with subliminal sights.

Motivational Audiotapes Motivational audiotapes are sold nearly everywhere — offered at bookstores, air- ports, by direct mail, and at supermarkets. They are advertised on television and in magazines. Yet their efficacy is doubtful. Merikle (1988) found that audiotapes, which were supposed to contain inspirational exhortations, in fact contained little more than music, wave sounds, cricket chirps, and bird calls. Sound engineers analyzed commercial audiotapes and found no signs of speech insertions apart from evidence for the nature sounds. Of course, the important question is not whether differences in tapes can be detected by ordinary consumers or even by sophisticated sound engineers. The real issue is whether tapes deliver the therapeutic effects they promise. Not surprisingly, Merikle showed that people reacted the same to subliminal message tapes as they did to placebo, no-message tapes.

Greenwald et al. (1991) recently conducted the most extensive tests of claimed therapeutic effects of audiotapes with subliminal verbal content. In some of these tests, both the listeners and their supervisors did not know what the content of the tapes was. That is, they did not know whether the tapes were supposed to improve memory or to increase self-esteem. The findings clearly showed that subliminal audiotapes designed to improve memory and to increase self-esteem did not produce effects associated with their alleged subliminal content. These findings mean that any effect of an audiotape must be attributable entirely to the

listener's perception of the tape's content. Maybe it is true that you cannot tell a book by its cover, but Greenwald et al.'s (1991) research suggests that you can predict a motivational audiotape's effect only by its cover — not by the content of the cassette itself.

#### Merikle concluded:

In spite of our failure to find any support whatsoever for the many and varied claims concerning these cassettes, it is probably safe to predict that the present evidence will be completely ignored by everyone who wishes to continue to believe in the mystical nature of subliminal perception. (1988, p. 371)

#### Backward Messages

Continuing with our closer look at subliminal sounds, consider another phenomenon: Messages embedded in rock songs are supposed to be evident when the music is played backwards. When the recordings are played normally (forward), critics claim that the messages are heard subliminally (backmasking). The typical criticism is that youthful listeners of rock music are unknowingly "led down a path of loose morality and behavioral aberration" (Vokey & Read, 1985, p. 1231). Belief in the effects of backmasking is so strong that Arkansas and California have passed bills demanding that records and tapes with backmasking have prominent warning labels. Indeed, the state of Texas and the Canadian parliament have funded investigations of backmasking.

To see if backmasking had any impact on listeners, Vokey and Read (1985) first had to confirm that it was more than "people's capacity to spontaneously supply or fill in appropriate speech sounds when they are missing or altered" (Moore, 1988, p. 306). Vokey and Read found that listeners were able to distinguish the sex of the singer when rock music was played backwards but nothing more. When rock music was played backwards, the source of the message was the listener herself rather than some external force (e.g. Satan or evil musician). If listeners were told what they would hear, they heard what they were told to hear. If there was no prompting, they did not hear any messages.

Even though listeners were poor detectors of backmasking, it was still possible that they were affected by the backmasking; after all, a person can die from eating food with an undetectable poison. However, there was "no evidence that listeners were influenced, consciously or unconsciously, by the content of the backward messages" (Moore, 1988, p. 1236). Vokey and Read partly blame the media for confusion about subliminal sound messages. The media often fail to distinguish between the existence of a phenomenon (e.g., backmasking) and evidence that the phenomenon is having any effect.

#### Subliminal Perception

What about subliminal sights?

In 1957, the messages "Drink Coca-Cola" and "Eat popcorn" were superimposed on movies

in progress. The theater audiences were unaware because the exposure times were so short that the flow of the films was unimpeded. The marketing firm responsible reported a dramatic increase in Coke and popcorn sales but provided no empirical evidence for these increases (Moore, 1982).

Subsequently, an academic researcher (Hawkins, 1970) conducted an exper- iment in which messages were presented subliminally. Hawkins used a device that illuminated printed statements for very short time periods. The device could illuminate two statements at the same time (as in current television monitors with inserts in part of the screen from another channel); it could also mix statements so that they appeared as a single image. The presentation of the subliminal statements took place during another experiment, the cover experiment. The cover experiment had the stated purpose of establishing recognition thresholds for various (automotive) brand names; for example, how quickly would subjects recognize Ford? Group I, the control group, received a nonsense syllable (four letters with no meaning, e.g., NYTP) at the subliminal exposure time of 2.7 milliseconds. Group II was subliminally presented with the word Coke in the cover experiment. That is, Coke appeared very briefly alongside the normal presentation of an automotive brand name (e.g., Ford). Each group was presented with its particular subliminal message 40 times over approximately 15 minutes. The subjects then filled out questionnaires in which they indicated how long it had been since they had anything to drink and how thirsty they were at the present time.

"The results were statistically higher thirst ratings for the group exposed to the subliminal stimulus COKE compared to the group exposed to the subliminal presentation of a nonsense syllable" (Beatty & Hawkins, 1989, p. 6). Hawkins concluded that "a simple subliminal stimulus can serve to arouse a basic drive such as thirst" (Hawkins, 1970, p. 324).

Now consider an apparent laboratory corroboration of the kind of effect reported by Hawkins (1970). Kunst-Wilson and Zajonc (1980) displayed bursts of lights on a screen to viewers; the bursts were really octagons shown too fast to see. A few minutes later, the viewers filled out questionnaires in which they indicated their liking for various geometrical shapes, including octagons. Their questionnaire responses indicated they clearly preferred the octagons that were flashed to other shapes that were not flashed. Although the Kunst-Wilson and Zajonc results have been independently reproduced, their support for the possibility of subliminal persuasion is actually quite tenuous, as we shall see below.

Whether subliminal influence can cause changes in behavior is still an open question. Bornstein et al. (1987) found that subjects agreed more with an accomplice of the experimenter if that accomplice's face had previously been subliminally presented; they agreed less when they were seeing the accomplice for the first time, that is, without prior subliminal viewings. Unfortunately, the effect was not strong, and it did not affect other measures of behavior. Thus, the findings did not advance the likelihood of real-world subliminal persuasion.<sup>2</sup>

In sum, several important question marks surround subliminal influence. First, although people liked the shape of octagons better than other shapes, advertisers do not want

consumers merely to like the word popcorn; they want consumers to be motivated to act, to buy popcorn. Subliminal repetition of communicators' faces may make those communicators more persuasive in the next few minutes, but would those subliminally enhanced faces be more persuasive the next day, the next week? Linkage from a subliminally induced preference to a sub-sequent supermarket aisle or voting booth decision has yet to be documented. There is no evidence that a message registered below threshold (i.e., below one's level of awareness) can have effects persisting longer than a few minutes. And finally, ask yourself, When does a persuasion practitioner (such as a television advertiser) have the luxury of a captive audience whose attention can be trained on an unimpeded subliminal message? Even if this direct pipeline to the mind were possible, however, there is no evidence that weak stimuli can countervail strong stimuli, that is, the other strong sights and sounds and internal thoughts reaching the mind of the recipient.

#### Embedded Messages

Subliminal persuasion alarmist Key (1977) argued repeatedly that advertisers embed the word sex in their advertising copy to obtain enhanced recall and recognition through implicit sexual association. To test this hypothesis, Vokey and Read (1985) produced three sets of slides of vacation experiences: in the first, the word sex was embedded three or four times; in the second, a three-letter nonsense syllable was inserted; and in the third, there were no embeds. Viewers examined an equal number of each type of slide before being tested for their ability to remember aspects of the vacation scenes. None of the viewers reported seeing the word sex, so the embedding was not noticed. Viewers could only see sex if it was pointed out to them. (We return later to the insight that subjects see Key's sexual objects in advertisements only when these shapes and forms are pointed out.) Key's claim was not supported. Slides that had been *sex* embedded during initial exposure were not better recognized than slides with nonsense syllables or no embeds. There was no improvement when another test was administered two days later (see Figure 12-1).

#### Contemporary Issues in Subliminal Research

Pratkanis and Greenwald (1988) noted that "researchers have failed to produce reliable subliminal effects for at least three reasons: (a) inconsistent use of the term subliminal, (b) lack of adequately precise and standardized methods, and (c) lack of an adequate conception of unconscious processes." They further noted that, "as a consequence of these problems, it has not yet been possible to describe, with confidence, conditions under which subliminal effects are likely to occur" (p. 339).

#### What Is Subliminal?

One of the major problems in determining the effect of subliminal messages is precisely defining what is meant by *perception without awareness* (Moore, 1988; Synodinos, 1988b). The term threshold is used to refer to the point at which awareness of a stimulus (e.g., the word *Coke*) is reported or at which unreported awareness has a measurable effect on some subsequent behavior. To illustrate, detection of vodka in a vodka-and-tonic will vary among drinkers. Each drinker's vodka-reporting threshold can be defined in terms of a proportion

of vodka to tonic. *Subjective* awareness thresholds consist of subjects' self-reports as to whether they were aware of the stimulus; *objective* awareness thresholds, on the other hand, are determined by subjects' ability to distinguish whether a stimulus was actually presented (Cheesman & Merikle, 1986).



FIGURE 12-1 All the world's a glass of gin when your true love waits therein!

Here is one respected technique for establishing *objective* thresholds of awareness. Observers must distinguish between the presence of a stimulus (e.g., a word) and its absence (e.g., a blank slide). Subliminality is achieved when the observer is unable to distinguish the word's presence from its absence (Eriksen, 1960). According to Moore (1988), the most serious problem with research attempting to demonstrate subliminal effects is carelessness in ensuring that messages are truly subliminal. "Some messages that are assumed to be subliminal may be either partially available to consciousness some of the time or may be so far below an objective threshold of awareness that they are operatively nonexistent" (Moore, 1988, p. 311).

Setting up conditions that rule out the availability of a stimulus to consciousness and, at the same time, allow for some operative, measurable effect has proven very difficult for research scientists. Let us return to your vodka-and-tonic. Suppose we wanted to demonstrate that vodka impairs your performance on a video game; at the same time, we want you to be completely convinced that your drink contains nothing but tonic water. Quantities of vodka minute enough not to be detectable to the most sensitive palate and small enough to evoke none of the usual sensations of alcohol (euphoria, warmth, etc.) might be too tiny to have any effect on your performance on a video game or any other measurable task. Few investigations of subliminal persuasion have achieved the requisite fine-tuning of stimulation necessary for a fair test of the phenomenon.

#### But We All Believe in It!

Although scientists have not been able to provide reliable recipes for subliminal omelets, the average person has subliminal egg on his or her face and likes it! At the outset of this chapter, we noted that popular belief in subliminal manipulation is steadily increasing. How come? (Gentle reader, perhaps you are one of the believers!)

## Speculation Regarding the Psychology of Belief in Subliminal Persuasion

Social psychologists have uncovered five human tendencies that may account for the widespread acceptance of the efficacy of subliminal persuasion. The first is the propensity to attribute our unfavorable outcomes to external causes (Weary Bradley, 1978). Given that most consumers are not completely satisfied with their purchases of advertised products, they might be ready to attribute, or blame, external causes.

One way of accounting for dissatisfactions would be to attribute purchase choices to forces beyond one's control, that is, to manipulative advertising. This speculative account is testable. Propensity to believe in subliminal manipulation should be higher, other things equal, for products (and/or product categories) that are more disappointing. Similarly, subliminal manipulation is more likely to be imputed to advertising for products that are enjoyable but unhealthful (cigarettes, alcohol, calorie-rich foods, etc.). People can justify their consumption of cigarettes, rich foods, and so forth by telling themselves that outside forces compelled them to do these things. If it was not the devil that made them do it, then perhaps it was subliminal advertising.

The second account deals with the propensity for false beliefs to persevere (Ross, Lepper, & Hubbard, 1975). Most consumers appear to be aware of aspects of the controversy surrounding subliminal persuasion (Synodinos, 1988a). Indeed, because these aspects receive fervent media attention, consumers have frequently processed the term *subliminal* in conjunction with terms such as *persuasion*, *advertising*, and the like. Consider how these consumers will now react to the following quotation from Anthony Pratkanis in the *New York Times*:

Subliminal tapes are today's snake oil. There's no evidence that there is

subliminal perception of their message. There's no evidence of any perception at all, let alone evidence that they work. (Goleman, 1990, B9)

Knowing that Pratkanis's statement was based on a careful empirical test of such tapes' effectiveness and knowing that subliminal tape companies support their claims only through testimonials from satisfied customers may not be sufficient to change long-standing and long-processed beliefs about the power of subliminal messages. People will have many other beliefs and experiences connected in their minds with the original supportive beliefs; these connections will make the original beliefs salient and easy to think about. Thus, the original beliefs may easily override any new information. Moreover, it will not be long before the media supplies consumers with new allegations or so-called evidence attesting to subliminal power.

A third account stems from the everyday experience of responding with feelings of like/agree versus dislike/disagree to incomprehensible or even unintelligible messages (Padgett & Brock, 1987). Indeed our initial social experience involves exposure to unintelligible communications; infants first hear vocalizations from parents and eventually associate these novel sounds with meaning. As adults, we use contextual cues to interpret and respond to messages in incomprehensible foreign languages. For example, crowds chanting in Russian in Moscow and Leningrad during the 1991 coup attempt elicited immediate understanding from observers everywhere in the world.

A fourth account stems from the equally common experience of having beliefs, attitudes, and the like for which one cannot recall the source. A central assumption of the cognitive response approach to persuasion is that audiences are active in the persuasion process, providing material not in the original message (see Chapter 6 by Petty et al. in this volume). Further, the persistence of persuasion depends on the extent to which one rehearses these self-generated cognitive responses (Greenwald, 1968), rather than rehearsing responses based on the communication, such as paraphrases of message content. Hence, a message that maximizes self-generated responses will have more long-term effectiveness than one that does not. Forcing a recipient of a persuasive message to rely on self-generated cognitive responses (rather than on remembering the message) therefore may increase the effectiveness of that message. But this experience could also reinforce an impression of having been the target of subliminal manipulation because the original message that instigated one's responses has been forgotten, and one may find oneself agreeing with unretrievable message points.

Finally, a fifth determinant of belief in subliminal persuasion may be the "fallacy that presence implies effectiveness" (Vokey & Read, 1985, p. 1232). Once it has been acknowledged that some incoming stimulation is actually there, although below the level of one's awareness, then it is assumed that such stimulation is having an impact on one's beliefs and behaviors. Since we often surmise—sometimes correctly—that very small amounts of chemicals and foodstuffs can have important effects on our well-being, perhaps it is consistent to suppose that quite undetectable symbolic stimulation in the form of very brief sights and sounds may also have some serious consequences.

In sum, belief in the efficacy of subliminal persuasion may be detennined by the following factors, singly or together:

- The tendency to attribute unfavorable outcomes to external causes
- The perseverance of long-held beliefs in spite of countervailing evidence
- Wide experience in responding to unintelligible messages
- Wide experience in responding to a topic after forgetting the original message on that topic
- The belief that if something exists it must be having an effect

#### Conclusions

Pratkanis and Greenwald (1988) summarized research on subliminal influence:

There continues to be no reliable evidence in support of the more sensational claims for the power of subliminal influence. Further those subliminalfindings that appear to be replicable (a) tend to involve only low levels of cognitive processing, levels that are of little value to the marketer, (b) are difficult to implement in mass media settings, and (c) might just as (or more) easily be implemented using supraliminal (observable/detectable) techniques. (p. 349)

Although there are some mild, reliable effects, it appears that the only way that the marketing industry is profiting from subliminal persuasion is by exploiting the public's widespread belief in its efficacy (by selling self-help audiotapes, for example).

#### Epilogue: The Story That Is Bound to Be Repeated

We conclude with a true fable. The term *fable* is used because we expect that the sequence of events and the meaning of the sequence will persist indefinitely Recall that Hawkins's (1970) research appeared to corroborate the observation of the market researchers that subliminal directives can have the power ascribed to them. Indeed, for the next two decades, Hawkins's study has been one of the most widely cited classics in consumer behavior journals and textbooks.

We come now to the end of the fable, an attempt by Hawkins to reproduce his own 1970 findings (Beatty & Hawkins, 1989). Every effort was made by Beatty and Hawkins to duplicate exactly the original experiment, but the results showed no differences in thirst ratings between the experimental group (Coke) and the control group (nonsense syllable; see the description earlier). In considering explanations for their failure to repeat the original results, the authors speculated that, in the original experiment, "the treatments had no effect but the control group reported lower thirst ratings due to chance (sampling error)... . In conclusion, this study casts serious doubts on the validity of one of the few studies to provide empirical evidence of subliminal effects in an advertising context" (Beatty & Hawkins, 1989, p. 7).



The advertising inclustry is sometimes changed with speaking seductive little pictures into ads. Supposedly, these pictures can get you to bit y a product with out your even seeing them.

Consider the phialograph above. According to some people, there's a pair of female breasts.

doesn't exist. Overactive imaginations, however, most certainly do. So if amone claims to see

breasts in that drink up there, they aren't in the ice cubes. They're in the eye of the beholder.

FIGURE 12-2 Are suggestive stimuli hidden in ads?

Source: Courtesy of the American Association of Advertising Agencies.

We expect that the Hawkins-Coke fable will be repeated over and over again in the future and with the same three-act drama: first act, an observation of an apparent subliminal effect in the field; second act, demonstration of the effect by an enthusiastic researcher in a laboratory analogue; and third act, subsequent failure by other researchers to reproduce the effect. It is noteworthy and praiseworthy that Hawkins himself published a retraction of his findings (Beatty & Hawkins, 1989). Nevertheless, it is safe to predict that Hawkins's 1970 classic will continue to be cited as proof of subliminal persuasion in the next best-seller by Wilson Brian Key and/or his successors. Further proof of subliminal manipulation will be provided using the same old "see-something-in-the-icecubes" trick (see Figure 12-2).

Remember Hamlet's verbal jousting with Polonius (Act 111,2):

*Hamlet*: "Do you see yonder cloud that's almost in the shape of a camel?"

*Polonius*: "Tis like a camel indeed."

*Hamlet*: "Methinks it is like a weasel."

Polonius: "It is backed like a weasel."

*Hamlet*: "Or like a whale?"

Polonius: "Very like a whale."

#### Notes

- 1. As we will consider later in this chapter, scientific findings have challenged the opinions of Wilson Brian Key as well as those of others who point to the insidiousness of subliminal manipulation. Nonetheless, Key's views are extremely well known and he is widely read, as evidenced by the instant popularity of his four books. (See the References to this chapter, namely, Key, 1973, 1977, 1981, 1989.)
- 2. "Recent attempts to demonstrate the marketing relevance of subliminal stimuli [Cuperfain & Clarke, 1985; Kilbourne, Painton, & Riley, 1985] contain so many methodological flaws that they cannot be said to have advanced the case regarding any possible advertising application" (Moore, 1988, p. 309).

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