

Stupefying ads:

Does advertising that underestimates our intelligence make us stupid?

Abstract

The marketing landscape seems to experience a worrying trend where consumers' intelligence is underestimated and insulted. However, little is known about the unintended effects these types of advertisements have on consumers. This study aims to place advertising in a wider context and add to the knowledge about advertisements that underestimate consumers' intelligence and explore if these types of advertisements can affect consumers' cognitive ability.

A quantitative approach was applied where a survey-based experiment with 681 Swedish respondents was conducted. The experimental group was exposed to three different types of advertisements that underestimate consumers' intelligence, whereas the control group was exposed to a neutral advertisement. The experiment measured *cognitive ability*, *processing fluency*, *persuasion knowledge*, *arousal* and *ad skepticism*.

The results show that consumers' cognitive ability can be affected by advertisements that underestimate their intelligence if they contain overly simple messages and therefore are difficult to process. The findings also indicate that the magnitude and direction of the priming effect on cognitive ability can be affected consumers' ad skepticism.

Keywords

Advertising that underestimates consumers' intelligence, cognitive ability, priming, priming effect, assimilation effect, contrast effect, processing fluency, persuasion knowledge, arousal, ad skepticism.

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Definitions

Ad skepticism: “The tendency to disbelieve the informational claims of advertising” (Obermiller & Spangenberg, 1998).

Advertisement: In current thesis, “advertisement” indicates that it is “a paid notice that tries to persuade people to buy a product or service” (Cambridge dictionary). In academia, “ad” is often used as an abbreviation.

Advertising that underestimates consumers’ intelligence: Advertising that underestimates the intelligence of the average consumer by disregarding the consumer’s capacity to act purposefully and think rationally. In current thesis this concept comprises overly persuasive ads, overly simple ads and primitive ads.

Arousal: “The level of alertness or activation on a continuum ranging from extreme drowsiness to extreme wakefulness” (Sanbonmatsu & Kardes, 1988).

Assimilation effect: Prime-triggered behavior and/or self-perceived concept that is in line with the priming stimuli (Appel, 2011).

Cognitive ability: “The ability of the brain to process, retrieve, and store information” (The Free Dictionary). In this thesis, cognitive ability is the mechanisms of how one pays attention and solves problems, and can be affected by situational circumstances.

Contrast effect: Prime-triggered behavior and/or self-perceived concept that is oppose to priming stimuli (Appel, 2011).

Intelligence: “The aggregate capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment” (Wechsler, 1944). In this thesis, intelligence cannot be affected by situational circumstances.

Overly persuasive ads: Advertisements that present exaggerated claims about the benefits of the product and/or expresses urgency to buy the product.

Overly simple ads: Advertisements that contain overly simple and explicit messages and the benefits of the product are unrealistic.

Persuasion knowledge: Consumers’ understanding of persuasion and theories about sellers’ and marketers’ intentions, tactics and strategies (Campbell & Kirmani, 2000).

Priming: An unconscious phenomenon where exposure of a stimulus affects responses to other subsequent stimuli (Weingarten, Chen, McAdams, Yi, Hepler & Albarracin, 2016).

Priming effect: In this thesis, priming effect refers to the effect advertisements that underestimate consumers' intelligence have on cognitive ability.

Primitive ads: Advertisements that allude to human primitive drives; sex, food, fight or fear.

Processing fluency: An individual's' subjective feelings regarding the ease experienced when processing information (Novemsky, Dhar, Schwarz & Simonson, 2007).

Working memory: "A cognitive system with a limited capacity that is responsible for temporarily holding information available for processing" (Miyake & Shah, 1999).

1 Introduction

Advertising is selling. Yet, despite the great amount of money spent by advertisers trying to sell and distinguish their offers from others, advertisements often seem to not have been given much thought. In fact, we can most likely recall observing ads that were entirely derisive and insulting to our intelligence. There is a great risk, no matter if you are watching TV, walking past a billboard or browsing for products online, that you may feel insulted by the marketers trying to persuade you. A perception of consumers as questioning, reflective and critical individuals does not seem to exist, as we continuously are exposed to advertisements that underestimate our intelligence. Lee (2017) describes one possible explanation for the phenomena: *“In the same way that stepping on a piece of glass is more memorable than stepping on a feather, a commercial that insults your intelligence, rattles your ears, or otherwise annoys you is more likely to be remembered.”*

Several studies have demonstrated advertisements’ tendency to underestimate the intelligence of the public. As early as 1968, a study about American consumers showed that there was a worrying trend that a lot of advertising underestimated their target audience, and by that insulted their intelligence (Bauer & Greyser, 1968). More recently, Dahlén, Rosengren & Smit (2014) found that consumers indeed perceive these types of advertisements as insulting to their intelligence.

Undoubtedly, the marketing landscape seems to experience a worrying trend where consumers’ intelligence is insulted and offended on a regular basis. One could argue that some stupidity probably is necessary for the advertising world, but is it completely harmless for us? As we everyday are exposed to extensive amounts of advertising, a curiosity to investigate if insulting advertising can affect our cognition arose.

1.1 Background

The following part aims to deliver an insight in previous research on the unintended effects of advertising and advertising that underestimates consumers’ intelligence as well as situational circumstances that can affect cognitive ability. From this, a gap in the research area will be identified and research questions will be presented.

1.1.1 Unintended effects of advertising

Researches have started to acknowledge advertising’s possible, unintended effects on consumers and investigate the magnitude and consequences of these effects (Rosengren, Dahlén & Modig, 2013). Davies, Spencer, Quinn and Gerhardstein (2002) investigated harmful effects that television commercials portraying negative stereotypes could have on women’s

performance on a following math test. Both women and men were primed with the female stereotype (with an unintelligent appearance), but only women who thought the portrayed stereotype was relevant to their self, performed worse on the math test.

While most research has focused on advertising's negative effects, Rosengren, Dahlén and Modig (2013) proved that advertising can have positive unintended effects too. It was found that advertising creativity can prime consumers to become more creative as processing of the ad increases and makes them think more, leading to greater creativity when dealing with other tasks. The findings proved to have positive effects for the marketer, but equally important for the consumer as well, since these advertisements improved their way of thinking and how they viewed themselves, i.e. as more creative (Rosengren, Dahlén and Modig, 2013).

Later research by Åkestam, Rosengren and Dahlén (2015) took another path and examined the possible social effects advertising with homosexual portrayals could have on consumers' empathy and self-perceived social connectedness. The study is an extension too research on the positive unintended effects of advertising and proved that consumers can be socially affected, in terms of increased empathy and perceived social connectedness, from being primed with homosexual portrayals.

1.1.2 Advertising that underestimates consumers' intelligence

Bauer & Greyser's (1968) survey about American consumers showed that a great amount of advertising tends to underestimate their target audience's intelligence and by that insult them. Later research has shown that consumers actually agree with the notion that "advertising insults the intelligence of the average consumer" (Bartos, 1981; Nan, 2006). Accordingly, Dahlén, Rosengren and Smit (2014) explicitly stated that "the notion that advertising tends to insult consumers' intelligence is about as old as modern advertising itself" and confirmed that consumers may indeed perceive advertising as insulting to their intelligence and that this perception, as a consequence, affects their attitude towards the brand negatively.

Even though there are substantial confirmations of the fact that consumers often perceive advertising as insulting to their intelligence, there is not much research about why consumers believe this is the case. Pollay and Mittal (1993) suggested that the feeling of being treated as unintelligent might come from the advertising being "overly simple, explicit and overly direct", which in turn is perceived as insulting. Dahlén, Rosengren and Smit (2014) emphasized this by saying that the feeling comes from consumers' perception of marketers regarding and treating them as if they were "morons", for example by constructing the advertisements with excessive and overly simple claims.

Furthermore, research has shown that the feeling of insult in the advertising context is connected to advertisements that are deceptive and devious (Nan, 2006). Dahlén, Rosengren and Smit (2014) extended this research and developed a more thorough understanding of the origins to the feeling of being insulted, by introducing consumers' use of persuasion knowledge in the context. It was argued that consumers perceive the overly simple messages as persuasion attempts and that their feeling of being insulted could be caused by their suspicion about the marketers trying to fool them (Dahlén, Rosengren and Smit, 2014).

We propose that there is an additional source for why consumers' can perceive advertisements as underestimating and insulting to their intelligence, which has been found in research about the use of sexual appeals in advertising. To promote products to the target audience by including sexual appeals in advertisements is close to common knowledge (LaTour & Henthorne, 2003). Sex is one of the primitive drives of human mankind (Griskevicius & Kenrick, 2013) and advertising containing nudity often activates sexual interest as a human instinct (LaTour, 1990; Morrison & Sherman, 1972). By viewing consumers as instinctive animals by alluding to human primitive drives, the intelligence of the consumers is underestimated, since marketers disregard the level of intellectual development of human evolution.

1.1.3 Situational circumstances that can affect cognitive ability

Working memory capacity is “a cognitive system with a limited capacity that is responsible for temporarily holding information available for processing” (Miyake & Shah, 1999). Working memory has proved to have a crucial impact on performance on several different tasks that are cognitively demanding, such as intelligence tests (Carpenter, Just & Shell, 1990; Engle, Laughlin, Tuholski & Conway, 1999; Kyllonen & Christal, 1990). It has been shown that performance on tasks that require extensive working memory, e.g. solving logical problems, can be influenced by “high-pressure environments”. In these environments consumers experience different kinds of stressful elements before solving the task, for example career or scholar related economic incentives and pressure from the social environment. These types of stressful pressures have proved to be able to generate anxiety and stress, leading to decreased performance on cognitive tasks (Beilock & Carr, 2001; Markman, Maddox, & Worthy, 2006). In these environments people are concerned about the situational circumstances and the possible effects they can have, leading to less working memory capacity available for peak performance (Beilock, Rydell, & McConnell, 2007).

Research within cognitive psychology has investigated how mental workload affects people's processing of information (Miyake & Shah, 1999). People can experience different levels of mental workload in different contexts or situations, and a certain mental workload can lead to decreased performance on demanding tasks (Ashcraft, 1998; Baddeley & Hitch, 1974), due to

restrained working memory capacity (Baddeley, 1983). Limited capacity can emerge from attentionally demanding tasks due to the difficulty of a task or because the individual's mind is busy dealing with several tasks at the same time (Ashcraft & Kirk, 2001). For example, processing of something other than information related to the focal task, such as personal concerns, inhibits processing of the task. Restrained capacity in such circumstances leads to decreased performance on cognitive tasks (Ashcraft & Kirk, 2001). It has further been proved that processing of cognitive tasks can be inhibited by exposure to emotional stimuli, prior to the task (Pereira, Volchan, de Souza, Oliviera, Campagnoli, Pinheiro & Pessoa, 2006) or during it (Vuilleumier & Schwartz, 2001).

Croizet with other (2004) showed that the presence of a stereotype perceived as having lower cognitive ability can affect performance negatively by “triggering a disruptive mental load” by those who self-relate to the stereotype. They found that performance on commonly used tests, measuring intellectual or cognitive ability, can be affected negatively by the way these tests are normally constructed. For example, it was shown that if the introductory information in the test contains the word “intellectual ability”, performance on the cognitive test was decreased among the individuals prone to prejudices about their inferior cognitive ability (the stereotype).

1.2 Problem area and research gap

Even though research on unintended effects of advertising is a fairly recent and unexplored area, it has up to this date been shown that advertising can have both positive and negative unintentional effects on consumers and marketers. Eye-catching and relevant for this thesis was the finding Rosengren, Dahlén and Modig (2013) made about how creative advertisements can prime consumers to become more creative, which indicates that it is possible to prime consumers into a “state-of-mind” with the use of certain types of advertisements.

As research has shown, there are certain types of advertisements that tend to underestimate consumers' intelligence and by that insult them, and Dahlén, Rosengren and Smit (2014) demonstrated that these advertisements also can have negative effects on the brand and its offering. However, little is known about the unintended effects these types of advertisements can have on consumers. Existing research does not tell us whether or not advertising that underestimate consumers' intelligence actually unintendedly affects consumers' cognitive ability.

As presented above, research within cognitive psychology has shown that situational circumstances and context-specific aspects have the ability to influence mental workload and working memory, and by that affect cognitive ability and performance on cognitive tests. Combining the research field on advertising's unintended effects with research on cognitive

psychology, we wondered: Is it possible that advertising that underestimates consumers' intelligence can have unintentional effects on consumers' cognitive ability?

Clearly, there is an unexplored gap in these combined research fields and covering this gap would be a first step on the path to acknowledge both consumers and advertisers about the unintended negative effects advertisements that underestimate consumers' intelligence could have on consumers' cognitive ability, and at the same time encourage the latter to produce advertising that is respectful to consumers' intelligence. As there is no prior research about advertising's unintentional effect on consumers' cognitive ability and therefore no comparable studies to draw conclusion from, this study is highly explorative.

The identified, unexplored research area provides interesting research opportunities and leads us into the purpose of this study; to investigate if advertisements that underestimate consumers' intelligence can affect their cognitive ability.

1.3 Purpose and research questions

This study aims to place advertising in a wider context and add to the knowledge about advertisements that underestimate consumers' intelligence and extend the field of research on advertising's unintentional effects on consumers. The purpose of the study is to explore if priming consumers with advertisements that underestimate their intelligence can affect their cognitive ability. In order to do this, underlying theoretical processes that can be accountable for a priming effect on cognitive ability will be presented and a trait of character that possibly could affect the magnitude and direction of the priming effect will be examined.

The main research question is:

Does priming consumers with advertisements that underestimate consumers' intelligence result in lower cognitive ability, compared to exposure to a neutral advertisement?

Where the effect on cognitive ability is explained with methods to measure the theoretical processes; processing fluency, persuasion knowledge and arousal.

To develop a more thorough understanding of the possible priming effect on consumers' cognitive ability, the sub research question is:

Can a contrast effect, higher cognitive ability, be explained by consumers' ad skepticism?

1.4 Delimitations

The survey in this study was made online which implies a risk for people not finishing the survey. To reduce the respondents' drop-out rate, which could be the cause of using video in the survey where the respondents are forced to leave the page, print advertisements were chosen as media. The sampling of the respondents was conducted with help from the research agency Nepa. Hence, the respondents in the study are limited to include Nepa's sampling network and as a result of this, respondents are limited to Sweden as geographical area.

This study will only include three types of advertisements that underestimate consumers' intelligence, namely, overly simple advertisements, overly persuasive advertisements and advertisements that allude to human primitive drives. Hence, other types of advertisements that underestimates consumers' intelligence is not included in this study.

1.5 Expected contribution

This study broadens the scope of research about unintended effects of advertising to include if and how advertisements that underestimate consumers' intelligence influence their cognitive ability. Our ambition is that the results will be of interest to both marketers and consumers, as they can become more aware of the effects advertising can have on individuals. As this is, up to date, an unexplored research area we hope to deliver new academic knowledge and spark interest for researchers to continue grow the body of the unintended effects of advertising.

2 Theory and hypotheses development

This chapter brings forth a thorough theoretical body of previous research and theories relevant to develop hypotheses regarding how consumers' cognitive ability can be affected by advertising that underestimates their intelligence. Firstly, a brief introduction of the fundamental phenomenon, *priming*, is given. Secondly, the underlying *theoretical processes* explaining the expected effect on cognitive ability are presented. Thirdly, *ad skepticism* is suggested as a trait of character that possibly could affect the magnitude and direction of the priming effect.

2.1 Theoretical background

2.1.1 Priming

Priming is an unconscious phenomenon and means that exposure of a stimulus affects responses to other subsequent stimuli (Weingarten, Chen, McAdams, Yi, Hepler & Albarracin, 2016). Research on priming is primarily about the effects different kinds of stimuli have on subsequent attitudes, beliefs, evaluations and behaviors (Bargh & Chartrand, 2000). Primes can trigger self-perceived concepts and behavior that are either in line with the priming stimulus, *assimilation effect* or oppose to it, *contrast effect* (Appel, 2011).

Media priming is a concept indicating that the priming stimuli is some sort of media. The priming effects are assumed to be temporary and as the strength and intensity of the exposure to the priming stimuli increases, the priming effects increase as well (Roskos-Ewoldsen, Roskos-Ewoldsen & Carpentier, 2009).

Research on priming has shown that stimuli can trigger different types of associations which in turn influence behavior (Wheeler & Berger, 2007). Early research has found that by observing, or even just thinking about, another individual's behavior, one often unconsciously mimics that behavior (Hull, 1933). Dijksterhuis and Bargh (2001) continued and expanded this early research and introduced the perception-behavior link which explains the relationship between perception and behavior. It was found that human beings are genetically determined or compelled to imitate behavior in an automatically manner (Dijksterhuis and Bargh, 2001). Using the perception-behavior link, Appel (2011) analyzed the priming of intelligent behavior and concluded that stimulating the trait "intelligence" by priming the professor stereotype triggered higher-order thinking, such as concentration, which lead to enhanced results on a subsequent knowledge test. A corresponding stimulation of the trait "stupidity" was conducted by priming the soccer hooligan stereotype. This priming experiment resulted in decreased performance in the subsequent knowledge test (Appel, 2011).

The presented literature within the research field on priming is relevant to this study, where the stimuli in the study's experiment are expected to prime the recipients in a certain manner. The advertisements that underestimate consumers' intelligence are expected to prime the recipients with the trait "stupidity" and consequently affect cognitive ability and result in a lower performance on the subsequent cognitive test.

2.2 Theoretical processes

Below, three theoretical processes explaining the expected decline in the respondents' cognitive ability from the primes that underestimate consumers' intelligence (an assimilation effect) will be presented. After that, the possibility of increased cognitive ability (a contrast effect) will be investigated with theories about ad skepticism.

2.2.1 Processing fluency

Processing fluency is an individual's' subjective feelings regarding the ease experienced when processing information (Novemsky, Dhar, Schwarz & Simonson, 2007). The level of processing fluency indicates how fast and accurately external stimuli are processed (Reber, Wurtz & Zimmerman, 2004). When processing is easy, fast and accurate, processing fluency is high (Whittlesea, Jacoby & Girard, 1990).

Processing fluency can be conceptualized as either perceptual or conceptual processes (Whittlesea, 1993). Perceptual fluency is how easy it is to identify and interpret the physical content and characteristics of a stimulus and is affected by variables like clarity and contrast (Whittlesea, 1993), which impact how fast and accurate the stimulus' perceptual components are identified (Jacoby, 1983; Tulving & Schachter, 1990). Conceptual fluency is the ability to identify and become aware of a stimulus' meaning and its connection to one's semantic memory and knowledge (Winkielman, Schwarz, Fazendeiro, & Reber, 2003). This type of fluency can be manipulated and affected by semantic primes (Kelley & Jacoby, 1998; Whittlesea, 1993).

High processing fluency is often related to something positive and is connected to favorable attitudes (Reber, Schwarz & Winkielman, 2004), since it indicates that the individual experiences successful processing of the stimulus, either in terms of the processing being free from error or a correct interpretation of a message (Carver & Scheier, 1990; Fernandez-Duque, Baird, & Posner, 2000; Ramachandran & Hirstein, 1999). Previous research on the relationship between fluency and familiarity has shown that stimuli that are perceived as familiar are processed with higher fluency (Jacoby & Dallas, 1981; Zajonc, 1968), require less attention (Desimone, Miller, Chelazzi & Lueschow, 1995) and do not generate any signal of disruption (Carpenter & Grossberg, 1995), in comparison to new stimuli. This is in line with research

showing that statements that are claimed or presented many times are perceived as more truthful than statements that have less repetition (Hasher, Goldstein, & Toppino, 1977; Schwartz, 1982). This truth effect can partially be explained by stimuli being processed with high fluency due to previous repetition (Reber & Schwarz, 1999). That is, the truth effect arises since repetition results in higher processing fluency of a message. People know that the feeling of high processing fluency has a positive correlation with the truth of a message, which also explains why repetition and high fluency leads to a statement being perceived as highly truthful (Unkelbach, 2007).

The feeling of fluent processing and judgements of learning are correlated both in terms of perceptual fluency and conceptual fluency. If processing of a task or some kind of information feels easy, the individual considers own skills and knowledge to be high, but if processing is difficult, own level of skills and knowledge is perceived as low (Miele & Molden, 2010). This has made researchers believe that the subjective experience of high processing fluency is consistently associated with positive attitudes in a learning situation (Winkielman, Schwarz, Fazendeiro, & Reber, 2003).

Research has shown that the experienced level of ease in processing of information might have effects on the experienced fluency of processing and evaluating subsequent information. Shen, Jiang and Adaval (2010) found that fluency experienced when reading a magazine article had an effect on the fluency of processing a subsequent advertisement which consequently affected the evaluation of the product presented in the advertisement. Research by Winkielman, Schwarz, Fazendeiro and Reber (2003) has confirmed that an assimilation effect can occur where low fluency in processing the first information leads to less favorable evaluations of subsequent presented product. That is, low processing fluency leads to negative affective judgement (Winkielman, Schwarz, Fazendeiro, & Reber, 2003). Related research by Adaval and Monroe (2002) shows that processing of information in the initial stimulus can establish a standard of the level of processing fluency and as a result subsequent material will be processed according to this standard. In other words, the difficulty of the first task creates a perspective of how easy or difficult the subsequent task will be to process.

To conclude, research confirms that the experienced ease or difficulty of processing information can affect the attitude, judgement and processing of following information (Adaval & Monroe, 2002; Shen, Jiang & Adaval, 2010). Conceptual fluency is primarily suggested to apply in this study, when examining the influence advertisements that contain overly simple statements and messages have on respondents' cognitive ability. The overly simple messages in the advertisements are expected to induce low processing fluency as they create a mismatch with the respondents' previous experiences of the product that is advertised and its connection to their semantic memory. Presumably, one knows that it is not possible to lose 25 pounds in two

weeks only by consuming diet pills or to build 700 per cent muscles mass in 7 weeks. These statements are not in line with what people think is true about losing weight or building muscles and, based on research by Unkelbach (2007), we thus argue that the overly simple ads will be processed with low conceptual fluency as a result of a “reversed truth effect” where a disruption in the respondents’ mind arise. In accordance with Adaval and Monroe’s (2002) research, the overly simple ads are expected to establish a low standard of the level of processing fluency and as a result, subsequent material (the cognitive test) will be processed in accordance with the low standard.

In light of the above, the respondents are expected to choose their intuitive answer (often the wrong answer) on the cognitive test, leading to decreased performance. It is therefore hypothesized:

H1: Advertisements that underestimate consumers’ intelligence by being overly simple will **a)** be processed with low fluency and **b)** lead to lower cognitive ability.

2.2.2 Persuasion knowledge

Persuasion knowledge is consumers’ understanding of persuasion and theories about sellers’ and marketers’ intentions, tactics and strategies. The concept of persuasion knowledge includes consumers’ perceptions of the effectiveness and appropriateness of these tactics and their strategies to deal with the persuasion attempts (Campbell & Kirmani, 2000).

Friestad and Wright (1994) presented the Persuasion Knowledge Model which is frequently referred to in the literature on persuasion knowledge. The model assumes that individuals’ persuasion knowledge develops and accumulates throughout life. According to Friestad and Wright (1994), consumers deal with persuasion attempts by noticing, analyzing, understanding and recalling them. From this, they develop strategies to cope with the attempts and to achieve their own goals in the buyer-seller context. Persuasion knowledge is useful for consumers in mainly every contact with marketers and can be accessed at any time. With the use of persuasion knowledge, consumers can evaluate persuasion attempts and determine how offensive, honest, or devious they are. The amount of cognitive effort a consumer assigns to persuasion knowledge varies and depends on the persuasion situation. The more a consumer experiences persuasion attempts and practices strategies to cope with them in life, the less necessary mental resources will be needed and parts of the strategies will start to activate automatically (Friestad & Wright, 1994).

Furthermore, Friestad and Wright (1994) recognized that a persuasion attempt can disrupt the consumer from noticing and understanding certain information in an advertising campaign as

the consumer's attention is drawn to the persuasion knowledge instead. Persuasion attempts that are recognized by consumers can thus affect their comprehension of the message the marketer tries to deliver (Friestad & Wright, 1994). In line with this, Deighton (1992) showed that a consumer that is subject to a persuasion attempt can become disengaged, since the consumer realizes that the marketer believes the persuasion strategies are appropriate to use.

There is a stem of research about the relationship between cognition and the use of persuasion knowledge. According to Campbell and Kirmani (2000), in face-to-face sales interactions, persuasion knowledge demands mental resources which can lead to a performance decline in other cognitive tasks that the consumer bears at the same time. In other words, the consumer's mind is busy dealing with and handling the persuasion interaction to the extent that other cognitive tasks becomes secondary (Campbell & Kirmani, 2000).

Earlier research provides an explanation for how persuasion knowledge can be cognitively demanding by demonstrating how individuals make assumptions and draw conclusions about other people. First, people draw inferences about other people based on their observed behavior. This step is called characterization (Gilbert & Malone, 1995; Gilbert, Pelham & Krull, 1988) and is mostly a perceptual and automatic process (Winter & Uleman 1984; Winter, Uleman & Cunniff, 1985). The second step involves a correction of the observations in the first step with regards to restraints specific for the situation, for instance ulterior motives (Gilbert & Malone, 1995; Gilbert, Pelham, & Krull, 1988). Here, processing is more demanding, as the identification of ulterior motives requires higher-order thinking (Winter & Uleman 1984; Winter, Uleman & Cunniff 1985). As such, the correction step demands more cognitive capacity. Since the activation of persuasion knowledge involves identifying and drawing conclusion about ulterior motives (Fein, 1996; Gilbert, Pelham & Krull, 1988), it is probable that it takes place during the correction step and can therefore be assumed to be cognitively demanding.

Based on previous research, we expect that persuasion knowledge will be activated among the respondents exposed to the overly persuasive advertisements as these make them analyze ulterior motives and persuasion strategies behind the ads. Campbell & Kirmani (2000) found that this process is cognitively demanding in face-to-face sales interactions and can result in decreased performance on other cognitive tasks the consumer deals with. The finding is believed to apply in this study, because even though there is not a face-to-face situation it still requires higher-order thinking to identify ulterior motives behind the advertisements, which interferes with other cognitive demands. Moreover, Friestad and Wright (1994) proved that the use of persuasion knowledge can disrupt consumers from noticing certain aspects in a advertisements, as they are occupied with identifying and analyzing the persuasion attempt. We argue that the activation of persuasion knowledge will occupy the minds of the respondents and

limit the cognitive capacity available for other tasks. With limited cognitive capacity the respondents will be more prone to choose their intuitive answer (often the wrong answer) on the cognitive test. In light of the above, we hypothesize:

H2: Advertisements that underestimate consumers' intelligence by being overly persuasive will **a)** activate persuasion knowledge and **b)** lead to lower cognitive ability.

2.2.3 Arousal

Sanbonmatsu and Kardes (1988) define arousal as “the level of alertness or activation on a continuum ranging from extreme drowsiness to extreme wakefulness”. The feeling of arousal can come from different sources, such as circumstances in the environment, like a crowded and noisy place, from doing physical activity or from consuming drugs (Pham, 1996). Belch, Holgerson, Belch and Koppman (1981) emphasized that stimuli containing nudity can act as a source of arousal activation. Sanbonmatsu and Kardes (1988) confirmed and developed this by showing that ads containing sexual appeals or induce fear, are able to affect the level of arousal. According to Bello, Pitts and Etzel (1983), sexual appeal also includes, apart from sensuality, text or visual content that is linked to sexual actions or nudity. In general, it has been concluded that arousal is related to a strong activation of emotions (Pham, 1996).

There are divergent views concerning whether different origins of the state of arousal result in one single type of arousal. However, it is widely known that all sorts of arousal feelings weaken the capacity of the working memory (Eysenck, 1982; Humphreys & Revelle, 1984). Among the first ones to present this was Yerkes and Dodson (1908), with the inverted U-shaped relationship between arousal and performance, also known as the Yerkes-Dodson law. According to this law, heightened arousal levels have a positive effect on performance on cognitive tasks up to a threshold level. If arousal rises beyond that level, performance declines (Yerkes & Dodson, 1908).

Arousal has further been related to cognitive processes, such as how information is dealt with, processed and construed (Duffy, 1972). Thayer (1978, 1986) and Purcell (1982) concluded that different arousal levels affect cognition in different ways. An individual's experienced level of arousal fluctuates often and substantially, where high levels of arousal, in general, has proved to inhibit the processing of information, especially when facing a difficult task (Sanbonmatsu & Kardes, 1988).

Pavelchak, Antil and Munch (1988) explored how Super bowl impacts ad recall where they observed that people living in the cities with the winning or losing teams did not remember as many commercials as those living elsewhere. It was found that Super Bowl generated high

arousal among the fans in the winning and losing cities which inhibited their processing of the commercials and decreased their ability to recall the commercials (Pavelchak, Antil and Munch, 1988).

More research has shown that high levels of arousal can be responsible for reducing the capacity available for processing and decreasing the ability to elaborate on information (Mueller, 1979; Schmeck & Spofford, 1982). High arousal levels influence how information is stored as increased attention is devoted to the physical appeals in the given information, instead of processing the semantic information. As the level of arousal rises, the number of cues that individuals process is narrowed. It has been shown that a high level of arousal decreases the intensity and the “depth” of processing of content that is to be learned (Eysenck, 1976).

Research by Easterbrook (1959) also concluded that raised arousal levels result in a higher level of selective attention. Mandler (1975) provided an explanation for the increased selective attention coming from high levels of arousal. When being highly aroused, the autonomic nervous system is pertinent which produces a proprioceptive response that in turn places a burden on the restrained attentional capacity. The characteristics of high arousal is internal attentionally demanding processes, which limit the amount of available processing capacity used for solving cognitive demanding tasks, resulting in lower performance (Mandler, 1975).

The research on arousal and its connection to selective attention is in line with Reichert, Heckler and Jackson’s (2001) research on advertising, which showed that sexual information raises attention, increases arousal and is remembered more, since much of the available processing resources are devoted to that kind of information in the advertising. This leads to less thoughts devoted to the subject in matter in the ad, as the processing of information containing sexual aspects prevents the recipients to devote full capacity to study and analyze information thoroughly. In other words, sexual messages and appeals reduce the ability to elaborate and restrains the systematic processing (Reichert, Heckler & Jackson, 2001). Shapiro, MacInnis and Park (2002) continued this research path and showed that advertising stimulating high arousal distracts consumers and diverts their attention, which disturbs the processing of following tasks or information. The increased attention towards the arousal producing stimuli can prevent the use of a cognitive schema and impede processing of other available material (Shapiro, MacInnis and Park, 2002).

From reviewing the literature on arousal, one can conclude that heightened levels of arousal can limit the capacity for processing and performing cognitive tasks, why arousal is relevant in the context of this thesis. As the primitive ads supposed to induce arousal contain nudity and sexual appeals, we expect, in accordance with research by Eastbrook (1959) and Mandler (1975), that the respondents’ attention will be selectively focused on the sexual appeals and the

nudity in the advertisements, which in turn will limit their cognitive capacity for the subsequent cognitive test. The increased attention towards the arousal producing elements in the advertising will, in accordance with Shapiro, MacInnis and Park's (2002) research prevent the use of a cognitive schema and impede processing of the subsequent cognitive test. Furthermore, Yerkes-Dodson law (1908) saying that arousal levels beyond a certain threshold impairs performance implies that the respondents' performance on the cognitive test, if experiencing high enough levels of arousal, will decrease.

According to the presented research on arousal and its impact on individuals' cognitive capacity and processes, we expect the performance on the cognitive test to be affected by the respondents' level of arousal from the primitive ads. With limited cognitive capacity the respondents will be more prone to choose their intuitive answer (often the wrong answer) on the cognitive test. Therefore, we hypothesize:

H3: Advertisements that underestimate consumers' intelligence by alluding to human primitive drives will **a)** generate high arousal and **b)** lead to lower cognitive ability.

2.3 Ad skepticism

Obermiller and Spangenberg (1998) defined skepticism towards advertising (ad skepticism) as "the tendency to disbelieve the informational claims of advertising", which is commonly used and referred to in later research in this area. Obermiller and Spangenberg (1998) further describe ad skepticism as a "a belief about advertising in general" and mean that it is an important part of general attitudes towards advertising and marketing.

Differences in attitudes influence the extent to which consumers are affected by advertising, where people with a positive view becomes more affected by it (Mehta, 2000). Having a positive attitude also means that one is more affected by the values that are being advertised, compared to those with a negative attitude. Attitude towards advertising influence if and how people will adjust for priming effects and how substantial these effects are (Defever, Pandelaere & Roe, 2011). Ad skepticism and general attitudes towards advertising are two research fields that are connected in the sense that people who are skeptical towards advertising have more negative attitudes towards it because of their skepticism. Advertising skeptics do not in general like marketing as much as those who are less skeptical (Obermiller & Spangenberg, 1998).

Consumers' ad skepticism is affected by factors like source and validation of information and previous experience, and these are considered by consumers when determining how trustworthy statements in advertisements are (Obermiller & Spangenberg, 1998). Skeptical consumers are expected to pay less attention to advertisements, be less prone to agree with the statements and

more willing to argue against them and the source (Obermiller & Spangenberg, 1998). Obermiller, Spangenberg and MacLachlan (2005) showed that people who are skeptical towards advertising do not believe that advertising is credible and is therefore considered unworthy to process. It was found that advertising skeptics attend less to advertising and pay more attention to information coming from sources other than advertisements (Obermiller, Spangenberg and MacLachlan, 2005).

When people perceive themselves as skeptical, they are often prone to behave in line with this personality trait and deal with extraneous stimuli accordingly (Tedheschi, Schlenker & Bonoma, 1971) and respond in a way that feels good for themselves (Steele, 1988). Obermiller and Spangenberg (1998) mean that if the reason for people being skeptical towards advertising is higher intelligence or better self-esteem, then these people should attend more to advanced arguments and less to peripheral parts of the advertisement. It was suggested that people who are very skeptical might possess “higher richer cognitive structures” in the marketing context and therefore be more attentive to and recognize marketers’ advertising tactics, which makes them less affected by advertisements that are implicitly persuasive (Obermiller and Spangenberg, 1998).

Furthermore, research has shown that people who perceive advertising as devious believe that the marketers’ desired effects from the advertisements will have a greater impact on them, compared to people who hold a predominantly positive view towards advertising. Having a perception that advertising is manipulative can thus result in a correction process of the presumed effects from advertisements and attempts to “contrast their behavior away” from values that are being advertised. (Lombardi, Higgins & Bargh, 1987; Newman & Uleman, 1990). Consequently, these people are more apt to argue against the advertisement’s statements and generate more opinions that are contrary to the claims in the advertisement, compared to those who do not believe advertising is devious (Obermiller, Spangenberg & MacLachlan, 2005). Schwarz and Bless (1992) made an interesting observation about behavior contrary to a prime, where they found that a contrast effect “requires extra processing steps, and more effort”, compared to an assimilation effect.

In accordance with Lombardi, Higgins, and Bargh (1987) and Newman and Uleman (1990), the respondents who are skeptical towards advertising are predicted to correct more for the presumed priming effect and behave contrary to the effect, whereas the respondents who are predominantly less skeptical towards advertising are predicted to be more affected by the presumed assimilation effect (Mehta, 2000). Tedheschi, Schlenker and Bonoma’s (1971) argued that skeptical people are apt to engage in a behavior that makes them feel good and self-fulfilled, a behavior that is in line with this personality trait. Combining Obermiller and Spangenberg’s (1998) suggestion, that ad skepticism could be a result of higher intelligence

and imply richer cognitive structures, with Schwarz & Bless's, 1992) finding, that contrast effects demand more processing effort, the ad skeptics are expected to engage in higher-order-thinking and thus resist answering their intuitive answer (often the wrong answer).

Summarizing, the effects of priming can be influenced by the respondents' attitude towards advertising and their ad skepticism. We argue that the magnitude and direction of the priming effect will be affected by ad skepticism, and that it can explain a contrast effect, better performance on the subsequent cognitive test. Specifically:

H4: High ad skepticism will lead to higher cognitive ability, compared to low ad skepticism.

2.4 Summary of hypotheses

Summary of hypotheses	
H1	Advertisements that underestimate consumers' intelligence by being overly simple will a) be processed with low fluency and b) lead to lower cognitive ability.
H2	Advertisements that underestimate consumers' intelligence by being overly persuasive will a) activate persuasion knowledge and b) lead to lower cognitive ability.
H3	Advertisements that underestimate consumers' intelligence by alluding to human primitive drives will a) generate high arousal and b) lead to lower cognitive ability.
H4	High ad skepticism will lead to higher cognitive ability, compared to low ad skepticism.

3 Methodology

3.1 Scientific approach and research method

With the above presented theories and formulated hypotheses, this deductive study aims to empirically test if the theoretical body applies for this study. To be able to draw general conclusions, by analyzing data with statistical methods, a quantitative approach was applied and an experimental research method was chosen (Bryman & Bell, 2015). The study can be characterized as causal (Bryman & Bell, 2015), since it aims to test if there is a causal relationship between advertisements that underestimate consumers' intelligence and cognitive ability.

Internal validity of the experiment is ensured by using a control group to compare the experimental group with, where the only difference between the groups is the stimulus they were exposed to. Since the respondents answered the questionnaire immediately after being exposed to the stimulus, it is likely that any observed differences between the control group and the experimental group can be explained by a causal link with the stimulus (Bryman & Bell, 2015). As recommended by Bryman & Bell (2015), the sectioning of the respondents into either the experimental group or the control groups was randomized, to further ensure that any differences in the results is due to the stimulus. Random assignment also cancels out any individual differences between the groups (Söderlund, 2010). To make it possible to apply the results in the real world, and ensure external validity, existing real advertisements were used in the study (Bryman & Bell, 2015).

3.2 Survey design

The survey used for the experiment consisted of a short introduction, a print advertisement (stimulus) and a line of questions divided into different blocks. The only difference between the experimental group and the control group was the stimulus. Six stimuli were attributed to the experimental group, with two stimuli for each of the three types of advertisements (overly simple, overly persuasive and primitive). The control group was exposed to one control stimulus (a neutral home interior print advertisement) and the experimental group was randomly assigned with one of the six experimental stimuli. Each stimulus was evenly distributed among the respondents. In order to strengthen the effects of persuasion, brand names and logos were kept or added to the print advertisements.

The introduction text informed the respondents about the study being conducted by researchers interested in the effects of different print advertisements and that a print advertisement image will be shown. After being randomly assigned with one of the stimuli, the respondents had to wait ten seconds before proceeding to the questionnaire.

The questionnaire, containing three blocks, started with The Cognitive Reflection Test (Frederick, 2005), consisting of three multiple choice questions. The second block consisted of three process questions, each with sub-questions, with the purpose to measure the theoretical processes. The third block consisted of moderate questions, each with sub-questions, asking the respondents about their ad skepticism.

As recommended by Bryman & Bell (2015), when estimating perceptions and opinions in quantitative studies, answers were suggested on an interval scale. To capture small variations, which could be of importance as effects often are small when the exposure time of the stimulus is short, a ten-point scale was used. The lowest number (1) represented negative responses “do not agree at all” whereas the highest number (10) represented positive responses “agree completely” (Malhotra, 2010).

3.3 Stimuli selection and preparatory studies

As recommended by Bryman & Bell (2015), experiments should mimic the reality as much as possible, to be able to apply conclusions in the real world. Therefore, the stimuli in this study are real world print advertisements. Individuals that participated in any of the preparatory studies did only take part in one, in order to prevent responses to be biased. The purpose of the first preparatory study was to test if the cognitive reflection test was suitable for the experiment and the second preparatory study aimed to select stimuli to the experiment.

3.3.2 Stimuli selection

Based on the three theoretical processes presented in the theoretical framework (processing fluency, persuasion knowledge and arousal) different print advertisements with characteristics matching these processes were collected. More precisely, ten print advertisements with an overly simple message, ten overly persuasive print advertisements and ten print advertisements that allude to human primitive drives were collected. Also, several stimuli without the distinctive characteristics for the three types of advertisements were collected for the control group. None of the selected advertisements were from well-known brands, in order to avoid strong emotional reactions due to brand recognition, which in turn could affect the respondents' answers.

Based on the theoretical processes presented earlier (processing fluency, persuasion knowledge and arousal) the three different types of advertisements are defined as followed:

Overly simple ad: the message presented in the advertisement is overly simple and explicit and the benefits of the product are unrealistic.

Overly persuasive ad: the advertisement presents exaggerated claims about the benefits of the product and/or expresses urgency to buy the product.

Primitive ad: the advertisement alludes to the human primitive drives; sex, food, fight or fear.

3.3.3 Preparatory studies

The first preparatory study aimed to ascertain that the cognitive test had an acceptable degree of difficulty. In order to find the stimuli that score highest on the three types of advertisements that underestimate consumers' intelligence and therefore generate the desired effect on the respondents, the second pre-study consisted of one round for each of the three types of advertisements. A fourth round was conducted to find the neutral print advertisement for the control group.

Preparatory study 1: the cognitive test

The Cognitive Reflection Test (CRT) (Frederick, 2005) was translated into Swedish and tested on 44 individuals to ascertain its appropriateness for this study. The mean age was 31 years and 53% women and 47 men. Frederick's (2005) studies gave a test mean score of 1.24, where one point is given for each correct answer (maximum 3). The preparatory study in this thesis gave a mean CRT score of 1.65.

Table A: Result from preparatory study 1

The Cognitive Reflection Test		Percentage scoring 0, 1, 2 or 3			
		"Low"		"High"	
	Mean CRT score	0	1	2	3
N = 44	1.65	23.3%	18.6%	27.9%	30.2%

Preparatory study 2a: advertisements that underestimate consumers' intelligence

The ten print advertisements from each of the three categories were put in individual surveys. Twelve people per survey, divided equally between men and women, responded to one of these surveys, where they rated the advertisements based on either one of the following questions *To what extent do you think the advertisement has an overly simple message?*, *To what extent do you think the advertisement is overly persuasive?* or *To what extent do you think the advertisement allude to human primitive drives?*, followed by the question *To what extent do you think the advertisement underestimates your intelligence?*. The answers were on a ten-point scale where (1) was “to a very small extent” and (10) was “to a very large extent”. The two advertisements from each category with the highest mean on both questions were carried forward to the main study. In total, six advertisement and images for the experimental group were collected to the main study.

Table B: Result from preparatory study 2a

	To what extent do you think the advertisement has an overly simple message?	To what extent do you think the advertisement underestimates your intelligence?
Overly simple ads		
Diet pill	7.33	7.83
Muscle gain	9.27	9.17
	Lowest: 6.77	Lowest: 5.08
Not selected stimuli	Highest: 8.28	Highest: 7.25
(n = 9)	Mean: 7.59	Mean: 6.08
	To what extent do you think the advertisement has an overly persuasive message?	To what extent do you think the advertisement underestimates your intelligence?
Overly persuasive ads		
Teeth whitening	8.05	7.32
Workout machine	7.37	7.21
	Lowest: 5.42	Lowest: 5.00
Not selected stimuli	Highest: 7.79	Highest: 6.58
(n = 9)	Mean: 6.57	Mean: 6.05
	To what extent do you think the advertisement alludes to human primitive drives?	To what extent do you think the advertisement underestimates your intelligence?
Primitive ads		
Hamburger	7.11	8.48
Picnic	6.39	8.67
	Lowest: 4.50	Lowest: 2.96
Not selected stimuli	Highest: 6.56	Highest: 6.25
(n = 9)	Mean: 5.73	Mean: 4.62

Preparatory study 2b: neutral ad

Five print advertisements with low on all three aspects (simple, persuasive and primitive) were collected and put in a survey where twelve respondents answered the question *To what extent do you think the advertisement underestimates your intelligence?* The answers were on a ten-point scale where (1) was “to a very small extent” and (10) was “to a very large extent”. The results generated means below 3 on all print advertisements but the lowest mean was 1.82, and this print advertisement (home interior) was carried forward to represent the stimulus of the control group in the main study.

3.3.4 Results from preparatory studies

The result from the preparatory study for the CRT was sufficient to carry it forward to the main study, since the mean score was similar to Frederick’s (2005) results, indicating that the test was neither too difficult nor too easy. From the preparatory studies for stimuli selection, six stimuli for the experimental group and one stimulus for the control group were brought forward to the main study. With the results from the preparatory studies for stimuli selection, the chosen ones are assumed to contain the right characteristics and elements to generate the desired effects on the theoretical processes.

3.4 Main study

3.4.1 Parameters of the main study

In this study, print advertisements that underestimate consumers’ intelligence serve as the priming stimuli and cognitive ability is the dependent variable.

Cognitive ability

The respondents’ cognitive ability has been estimated with Frederick’s (2005) Cognitive Reflection Test (CRT). It is a three-question assessment with multiple choice answers that tests “the ability or disposition to reflect on a question and resist reporting the first response that comes to mind” (Frederick, 2005). A correct answer on a question indicates that the respondent resisted answering the spontaneous response and came to the right answer by systematic processing. The CRT test gives scores between zero and three, depending on the number of correct answers, in accordance with Frederick (2005). The respondents’ individual scores will be calculated into mean scores for the three types of advertisements in the experimental group and the control group. The purpose of the test is to compare the results from the experimental group with the control group.

Processing fluency

To measure the respondents' experienced processing fluency of the overly simple advertisements, items recommended by Graf, Mayer and Landwehr (2017) have been used. On a ten-point scale ranging from "do not agree at all" (1) to "agree completely" (10), processing fluency of the advertisements was measured with four items: *difficult*, *unclear*, *incomprehensible* and *effortful*, $\alpha = 0.841$. A high mean score on the items indicates low processing fluency and a low mean score indicates high processing fluency.

Persuasion knowledge

To measure the persuasion knowledge of the respondents who were exposed to the overly persuasive advertisements, different items recommended by Hibbert, Smith, Davies and Ireland (2007) were selected. On a ten-point scale ranging from "do not agree at all" (1) to "agree completely" (10), persuasion knowledge was measured with three items: *it's convincing*, *it's trustworthy* and *it tries to make people buy things they don't really need*, $\alpha = 0.685$. The two first items have been reversed when measuring persuasion knowledge. Therefore, a high mean score on the items indicates high persuasion knowledge and a low mean score indicates low persuasion knowledge.

Arousal

To measure the level of arousal among the respondents exposed to the advertisements alluding to human primitive drives, items recommended by Thayer (1989) were used. On a ten-point scale ranging from "do not agree at all" (1) to "agree completely" (10), arousal was measured with the four following items: *energy*, *tiredness*, *tension* and *calmness*, $\alpha = 0.634$. The items tiredness and calmness have been reversed when measuring arousal. A high mean score on the items indicates high arousal and a low mean score indicates low arousal.

Ad skepticism

The priming effect is suggested to be influenced by the respondents' *ad skepticism*. Therefore, questions to measure ad skepticism were included in the study and items recommended by Ham, Nelson & Das (2015) were carefully selected. On a ten-point scale ranging from "do not agree at all" (1) to "agree completely" (10), ad skepticism was measured with three items: *I believe that advertising is generally truthful*, *I can judge if an advertising offer is too good to be true* and *I have a generally critical attitude towards advertising*, $\alpha = 0.687$.

3.4.2 Survey launch

The main study was carried out in April 2018 with help from the research agency Nepa, that distributed the survey to a representative share of Swedish inhabitants. The survey was constructed with the survey platform Qualtrics. A soft launch of the survey was conducted between march 29 and April 2. The main launch ran between April 5 and April 16.

3.4.3 Sampling of respondents

In total, 715 respondents took part in the survey, where 34 left before finishing it. After removing those respondents 681 were left with 582 respondents in the experimental group and 99 respondents in the control group. In order to improve the quality of the data, the lowest or highest standard deviation for the self-reported theoretical processes was removed. 59 respondents from processing fluency, 18 from persuasion knowledge and 23 from arousal were as a result excluded from the data. As a result, 482 respondents were left in the experimental group. Both men and women took part in the study, with ages between 17 and 64 years. The mean age was 39 years.

Distribution of respondents (n)				
	Women	Men	Other	Total
Experimental	253	221	8	482
Overly simple	76	71	2	149
Overly persuasive	93	67	4	164
Primitive	84	83	2	169
Control	49	48	2	99
Total	302	269	10	581

3.5 Data analysis tools and tests

After the research agency distributed the survey and collected the answers in Qualtrics, the data was downloaded and imported into SPSS Statistics version 24. The experimental group and the control group were studied by testing mean differences with independent samples *t*-tests. The significance level was set to 5%. Multiple-point scales items were measured with Cronbach's Alpha.

3.6 Reliability and validity

3.6.1 Reliability

The questions and measures used in the study were carefully selected from research papers as approved methods. To assess the measurement variables, the questions were constructed with answers on multiple-point scales. The items were then consolidated into Cronbach's Alpha, the in general most accepted method to measure reliability on multiple-point scales (Peter, 1979), with all measures exceeding 0.6, thus increasing reliability (Bryman & Bell, 2015). Worth mentioning is that behavioral measures are not fully reliable (Peter, 1979). However, the large sample of respondents ($N = 581$) strengthens the reliability.

3.6.2 Validity

Internal

By comparing the experimental group with a control group, with the only difference being the print advertisements exposed to the respondents, the differences in results are ensured to be attributed to the stimulus. Having two stimuli for each of the three categories lowered the risk of the results on measurement variables coming from other elements than the print advertisement's simplicity, persuasiveness or level of stimuli induced arousal. By conducting preparatory studies, the stimuli used in the main study was confirmed. With all these aspects in mind, the study has high internal validity (Bryman & Bell, 2015). To increase construct validity, measuring methods and items that are specifically made for measuring the cognitive processes were used, in order to generate results that closely relates to the theoretical variables (Söderlund, 2005).

External

With help from the research agency, random sample of respondents from the Swedish population was enabled which ensured that a representative share from the country was represented. In line with Söderlund (2005), to strengthen the validity, only real advertisements were used in the study. In order to strengthen the effects of, for example persuasion knowledge, brand logos were kept or added to the print advertisements. To decrease the risk of error due to brand recognition, no well-known brands were used.

4 Results

In the following section, the results from the study will be presented. Empirical support for the hypotheses posed in the theory will be found or not found.

4.1 Effect on cognitive ability

Firstly, the theoretical processes (*processing fluency*, *persuasion knowledge* and *arousal*) for the different types of advertisement (overly simple ads, overly persuasive ads and primitive ads) have been assessed, by comparing mean values with the control group, using independent samples *t*-tests. Secondly, *cognitive ability* has been measured and differences in mean scores between the three different types of advertisements within the experimental group and the control group (neutral ad) were compared using independent samples *t*-tests.

4.1.1 Effect on cognitive ability with overly simple ads

The level of *processing fluency* has been compared between the respondents who had been exposed to overly simple ads and the respondents who had been exposed to the neutral ad by using independent samples *t*-test, see table 1.

Table 1

Results from independent samples <i>t</i>-test showing differences in processing fluency				
Mean values				
	Overly Simple ads (n = 149)	Neutral ad (n = 99)	Difference	Significance
Processing fluency	4.861	3.765	1.096	0.004

Empirical evidence found for H1a. The overly simple ads were processed with significantly lower fluency, compared to the neutral ad. $M_{\text{OverlySimple}} = 4.861$ and $M_{\text{Neutral}} = 3.765$, $p < 0.01$.

The CRT mean scores were compared between the respondents who had been exposed to the overly simple ads and the respondents exposed to the neutral ad, using independent samples *t*-test, see table 2.

Table 2

Results from independent samples <i>t</i> -test showing differences in cognitive ability for overly simple ads				
	Overly Simple ads (n = 149)	Neutral ad (n = 99)	Difference	Significance
CRT mean score	1.013	1.071	0.057	0.049

Empirical evidence found for H1b. The CRT mean score was significantly lower for the respondents who had been exposed to the overly simple ads compared to the respondents who had been exposed to the neutral ad. $M_{\text{OverlySimple}} = 1.013$ and $M_{\text{Neutral}} = 1.071$, $p < 0.05$.

4.1.2 No effect on cognitive ability with overly persuasive ads

The level of *persuasion knowledge* has been compared between the respondents who had been exposed to overly persuasive ads and the respondents who had been exposed to the neutral ad by using independent samples *t*-test, see table 3.

Table 3

Results from independent samples <i>t</i> -test showing differences in persuasion knowledge				
	Mean values			
	Overly Persuasive ads (n = 164)	Neutral ad (n = 99)	Difference	Significance
Persuasion knowledge	6.400	4.950	1.450	0.01

Empirical evidence found for H2a. The overly persuasive ads activated significantly higher persuasion knowledge, compared to the neutral ad. $M_{\text{OverlyPersuasive}} = 6.400$ and $M_{\text{Neutral}} = 4.950$, $p < 0.05$.

The CRT mean scores were compared between the respondents who had been exposed to the overly persuasive ads and the respondents exposed to the neutral ad, using independent samples *t*-test, see table 4.

Table 4

Results from independent samples <i>t</i> -test showing differences in cognitive ability for overly persuasive ads				
	Overly persuasive ads (n = 164)	Neutral ad (n = 99)	Difference	Significance
CRT mean score	0.976	1.071	0.095	0.103

Empirical evidence not found for H2b. The CRT mean score was not significantly lower for the respondents who had been exposed to the overly persuasive ads compared to the respondents who had been exposed to the neutral ad. $M_{\text{OverlyPersuasive}} = 0.976$ and $M_{\text{Neutral}} = 1.071$, $p = 0.103$.

4.1.3 No effect with primitive ads

The level of *arousal* between the respondents who had been exposed to primitive ads and the respondents who had been exposed to the neutral ad has been compared by using independent samples *t*-test, see table 5.

Table 5

Results from independent samples <i>t</i> -test showing differences in arousal				
Mean values				
	Primitive ads (n = 169)	Neutral ad (n = 99)	Difference	Significance
Arousal	4.539	4.245	0.294	0.629

Empirical evidence not found for H3a. The primitive ads did not generate significantly higher arousal compared to the neutral ad. $M_{\text{Primitive}} = 4.539$ and $M_{\text{Neutral}} = 4.245$, $p = 0.629$.

The CRT mean scores were compared between the respondents who had been exposed to the primitive ads and the respondents exposed to the neutral ad, using independent samples t-test, see table 6.

Table 6

Results from independent samples <i>t</i> -test showing differences in cognitive ability for primitive ads				
	Primitive ads (n = 169)	Neutral ad (n = 99)	Difference	Significance
CRT mean score	1.068	1.071	0.023	0.952

Empirical evidence not found for H3b. The CRT mean score was not significantly lower for the respondents who had been exposed to the primitive ads, compared to the respondents who had been exposed to the neutral ad. $M_{\text{Primitive}} = 1.068$ and $M_{\text{Neutral}} = 1.071$, $p = 0.952$.

4.2 Ad skepticism affects the magnitude and direction of the priming effect

Since no empirical evidence was found for H3a, the respondents exposed to the primitive ads were removed before testing H4. To assess how respondents' *ad skepticism* influence the magnitude of the priming effects and therefore also the effect on cognitive ability, independent samples t-test were used to compare mean scores between respondents with low ad skepticism and respondents with high ad skepticism within the experimental group ($n = 313$), see table 7.

Table 7

Results from independent samples <i>t</i> -test showing differences in cognitive ability for ad skepticism				
	High skepticism (n = 220)	Low skepticism (n = 93)	Difference	Significance
CRT mean score	1.150	0.624	0.526	0.012

Empirical evidence found for H4. Respondents with high ad skepticism performed significantly better on the cognitive test, compared to the respondents with low ad skepticism. $M_{\text{HighSkepticism}} = 1.150$ and $M_{\text{LowSkepticism}} = 0.624$, $p < 0.05$.

4.3 Summary of results

Summary of hypotheses		Results
H1	Advertisements that underestimate consumers' intelligence by being overly simple will a) be processed with low fluency and	a Empirical evidence found
	b) lead to lower cognitive ability.	b Empirical evidence found
H2	Advertisements that underestimate consumers' intelligence by being overly persuasive will a) activate persuasion knowledge	a Empirical evidence found
	and b) lead to lower cognitive ability.	b Empirical evidence not found
H3	Advertisements that underestimate consumers' intelligence by alluding to human primitive drives will a) generate high	a Empirical evidence not found
	arousal and b) lead to lower cognitive ability.	b Empirical evidence not found
H4	High ad skepticism will lead to higher cognitive ability, compared to low ad skepticism.	Empirical evidence found

5 Analysis and discussion

In the following section, the results will be analyzed, discussed and interpreted in relation to the presented theory and hypotheses. The results indicate that advertisements that underestimate consumers' intelligence to some extent can affect consumers' cognitive ability. Furthermore, the findings show that ad skepticism affects the magnitude and direction of the priming effect.

5.1 The theoretical processes' effect on cognitive ability

5.1.1 Low processing fluency affects cognitive ability

The results showed that the respondents exposed to the overly simple ads processed these with low fluency and thus performed significantly worse on the cognitive test, compared to the respondents exposed to the neutral ad. The results thus indicate that low processing fluency could be a possible explanation for the lower performance on the cognitive test as a consequence of exposure to ads containing overly simple messages.

The findings are in line with the presented theory on processing fluency, primarily research by Adaval and Monroe (2002) who showed that the processing of information presented in the initial stimulus can establish a standard of the processing fluency and as a result subsequent material will be processed according to this standard. From this, the interpretation of the results is that the low processing fluency of the overly simple ads created a low standard of the processing fluency, by which the processing of the subsequent cognitive test was made.

Furthermore, the finding can be supported by the research about the truth effect (Unkelbach, 2007), or in this case, the expected "reversed" truth effect, where the overly simple messages in the ads created a mis-match in the respondents' mind between what they know is true about the advertised products and the overly simple message. The mis-match probably created a disruption when the respondents processed the ads, which in turn disturbed their cognition and made them less able to resist answering by intuition on the cognitive test.

5.1.2 High persuasion knowledge does not affect cognitive ability

The result shows that the respondents exposed to the overly persuasive advertisements activated persuasion knowledge and generated a lower CRT mean scores, compared to the respondents exposed to the neutral advertisement but, the differences were not significant. However, one can observe that the difference in mean score between the groups goes in the right direction and is not far from significant. Persuasion knowledge seems to play a role in the context and to some extent be accountable for a lower cognitive ability among the respondents exposed to the overly persuasive ads.

Campbell and Kirmani (2002) showed that persuasion knowledge is cognitively demanding in face-to-face sales interactions. A possible explanation for the result could be that the effect persuasion knowledge can have on cognition is not equally substantial in the context of our study (exposure to print ads) as in face-to-face situations. This indicates that the stimuli were not “extreme” or strong enough to make the respondents assign cognitive effort to persuasion knowledge to the extent that performance on other tasks (the cognitive test) decreases.

Since the results show that persuasion knowledge was activated among the respondents, it indicates that there were identification of ulterior motives behind the advertisements and thus required higher-order thinking (Winter & Uleman 1984; Winter, Uleman & Cunniff 1985). However, this process was probably not cognitively demanding enough to interfere with performance on the cognitive test to the extent that was expected. The persuasion attempts in the overly persuasive ads in this study were probably not exaggerated enough to require extensive cognitive effort.

Another possible explanation for the result is that people have different levels of accumulated persuasion knowledge and use it differently. Friestad & Wright (1994) presented that the more a consumer experiences persuasion attempts and practices strategies to cope with them in life, the less necessary mental resources will be needed and parts of the strategies will start to activate automatically. As the results indicate that the overly persuasive stimuli were not extreme enough, it is probable that many respondents have been encountered with similar sales tactics before, therefore less required amounts of mental resources and an automatic activation of the persuasion knowledge.

5.1.3 No effect with primitive ads

The results show that the primitive ads did not generate high levels of arousal, compared to the neutral ad. Furthermore, the result clearly shows that the primitive ads cannot be accountable for decreased cognitive ability, as no significant difference in CRT mean scores between respondents exposed to primitive ads and respondents exposed to the neutral ad was found. Why did not the primitive ads generate high levels of arousal among the respondents (and as a consequence result in decreased performance on the cognitive test)?

The results are surprising as previous research on arousal clearly points in the opposite (hypothesized) direction, and shows that arousal can be induced by ads containing nudity or sexual aspects and can have negative effects on individuals’ working memory (Eysenck, 1982; Humphreys & Revelle, 1984), capacity to process information and ability to elaborate on information (Mueller, 1979; Schmeck & Spofford, 1982). Further, research clearly indicates

that high levels of arousal interfere with systematic processing and limits cognitive capacity as attention is selectively devoted to physical aspects in the advertisement (Eysenck, 1976).

However, research on arousal and how high levels of it can affect cognitive ability has, to the best of our knowledge, not been tested or proved in a similar format as in this study before, with exposure of a print advertisement with sexual appeals followed by a cognitive test. Therefore, no qualitative comparisons are possible to make and we can only present speculations of why the results are not in line with what is expected from theory.

Evidently, the advertisements supposed to allude to human primitive drives were not strong or extreme enough to generate a level of arousal capable of affecting the respondents' cognitive ability. The short exposure time of (at least) 10 seconds may further explain why higher levels of arousal among the respondents was not reached. Yerkes and Dodson's (1908) inverted U-shaped relationship between arousal and performance tells us that if arousal rises beyond a certain level, performance decreases. The arousal level among the respondents in this study was not high enough to reach the threshold level where performance starts to decrease.

5.2 Skepticism towards advertising

As hypothesized, the result show that the respondents who are highly skeptical towards advertising performed significantly better on the cognitive test, compared to the less skeptical respondents. The finding indicates that ad skepticism can influence the magnitude and direction of the priming effect on cognitive ability.

The result points in the same direction as research and suggests, like Obermiller and Spangenberg (1998) found, that people who are highly skeptical possibly possess higher richer cognitive structures. Research has found that highly skeptical people attend less to advertising and perceive it to be unworthy to process (Obermiller, Spangenberg and MacLachlan, 2005), which can explain the fact that the respondents assimilate less to the priming effect and instead correct for the effect.

Moreover, people who are skeptical towards advertising are less prone to agree with statements and more willing to argue against them. In the case of this study, the skeptical respondents presumably became more "cognitively active", where they started to think more and thus resisted to give their intuitive answers on the cognitive test. This is further amplified by Schwartz and Bless (1992), who showed that the appearance of a contrast effect is more process demanding and requires more cognitive effort than an assimilation effect.

The respondents who are skeptical towards advertising, in line with research by Lombardi, Higgins & Bargh (1987) and Newman & Uleman (1990), probably behaved in contrast to the presumed priming effect and in line with the personality trait of being highly skeptical, by activating a self-related concept (e.g. “I am intelligent”).

5.3 General discussion and contribution

This study broadens the research area about media priming by providing knowledge about a possible causality between advertisements that underestimate consumers’ intelligence and cognitive ability. As there are no comparable studies within the field of unintended effects of advertising or advertising’s effect on cognitive ability, it is therefore safe to say that this study is highly explorative where we only can make knowledgeable guesses as to if and how advertisements that underestimate consumers’ intelligence affect cognitive ability. Three variants of advertisements that underestimate consumers’ intelligence were tested according to open reasoning to see if there exists any causes to a possible effect on cognitive ability.

Given the results, this study cannot give an unambiguous answer as to if priming individuals with advertisements that underestimates consumers’ intelligence actually affect their cognitive ability. However, there are tendencies indicating that so is the case. From the results it is evident that advertisements containing overly simple messages are difficult to process and therefore affect cognitive ability, as shown by the lower performance on the cognitive test. Advertisements that are overly persuasive activated persuasion knowledge, and it did affect cognitive ability to some extent, but with no significant difference. The primitive ads did not meet the expectations, by not generating high arousal and as a consequence, affect cognitive ability. However, this result is believed to be due to the stimuli not being extreme enough, rather than the hypotheses being incorrectly developed from theory.

Furthermore, the results indicate that the magnitude and direction of the priming effect on cognitive ability can be affected by a specific trait of character. People who are either highly skeptical or less skeptical towards advertising tend to react to advertisements in two distinct direction, as the results show that the highly skeptical respondents behaved in contrast to the presumed priming effect whereas the less skeptical respondents rather assimilated to the priming effect. From this, it can be suggested that the way people are minded affects how people react to and are affected by advertising.

It can be concluded that this thesis takes a first step in the direction of beginning to fill a completely new and unexplored gap within the research field of unintended effects of advertising. This study delivers new academic knowledge and it has hopefully sparked interest for researchers to continue grow the research body of the unintended effects of advertising.

6 Conclusions and implications

In the following section conclusions about the results are drawn and practical implications are presented. Critique and limitations are discussed and suggestions for future research are given.

6.1 Conclusions

The purpose of this thesis was to investigate if priming consumers with advertising that underestimate consumers' intelligence can affect their cognitive ability. The goal was to present underlying theoretical processes that can be accountable for the effects and examine if the magnitude and direction of the priming effect on cognitive ability can be affected by a specific trait of character.

The main research question was: *Does priming consumers with advertisements that underestimates consumers' intelligence result in lower cognitive ability, compared to exposure to a neutral advertisement?*

To conclude, the results indicate that the answer to the posed research question is yes, in one case and, no, in two cases. The results from the study give the following answers to the main research question:

- *Yes.* Priming consumers with advertisements that are overly simple and processed with low fluency result in lower cognitive ability, compared to exposure to a neutral advertisement.
- *No.* Priming consumers with advertisements that are overly persuasive or allude to human primitive drives does not result in lower cognitive ability, compared to exposure to a neutral advertisement.

Furthermore, the sub research question was: *Can a contrast effect, higher cognitive ability, be explained by consumers' ad skepticism?*

Given the results, the answer to the sub research question is:

- *Yes.* A contrast effect, higher cognitive ability, can be explained by consumers' ad skepticism.

6.2 Implications

The results from this study show that consumers' cognitive ability can be affected by advertisements that underestimate their intelligence if the advertisements contain overly simple messages and therefore are difficult to process. Furthermore, this study extends the research on ad skepticism to include how this personality trait can affect the magnitude and direction of the priming effect on cognitive ability.

Since the results indicate that the expected effect on cognitive ability to some extent exists, it is of great interest to expand and develop this knowledge. Theoretically, our study indicates that there is more to discover and learn about this priming effect and that it could be of academic interest to continue exploring the nature and underlying mechanisms of it by conducting more comprehensive and exhaustive studies.

Practically, our research indicates the importance of marketers producing advertising that is respectful to consumers' intelligence. This study is an extension to Dahlén, Rosengren and Smit's (2014) research about advertising that underestimates consumers' intelligence, where it was found that this type of advertising is perceived as insulting and less appreciated by consumers, resulting in a spill-over effect on the brand. The results from our study amplify this by focusing on the unintended effects on the consumer rather than on the marketer and its brand and offering. Therefore, this study highlights the importance of consumers being cautious of advertisements that underestimate their intelligence, and more importantly being aware of the effects they can have.

From the perspective of marketers, avoiding these types of advertisements is important when managing relationships with customers, since these advertisements can signal that the marketer has a prejudiced view of the customers being unintelligent. Treating the consumers as intelligent individuals is critical to avoid them feeling insulted and to avoid the negative effects the underestimation of their intelligence can have on the brand.

6.3 Critique and limitations

Given the exploratory nature of this study, we emphasize that drawing any generalizations or conclusions from the results should be done highly cautiously and the findings should be viewed as tendencies rather than evidence. Beyond the fact that this thesis is of an exploratory kind, generalizability is further limited by a number of factors.

First and foremost, this study focused on only three types of advertisements that underestimate consumers' intelligence, namely *overly simple*, *overly persuasive* and *primitive* advertisements. Therefore, our selection of stimuli probably does not cover all possible characteristics of advertisements that underestimate consumers' intelligence.

The chosen method to measure cognitive ability reflects a limitation as it is inherently bound to Frederick's (2005) Cognitive Reflection Test, since it only aims to assess if the individual resists to answer in the intuitive answer and performance is facilitated by mathematical and reading skills. This three-question test is therefore not a complete assessment of an individual's cognitive ability and any generalizations of the effects on respondents' cognitive ability are limited. Further, within the frames of this type of thesis, it was not possible to exhaustively measure the theoretical processes and skepticism towards advertising where comprehensive measures would require an extensively in-depth survey.

The fact that the primitive advertisements in the main study did not generate sufficient arousal demonstrates a discrepancy between the results of the preparatory study and the main study, which is an apparent shortcoming. If this study were to be replicated, even more "extreme" arousing stimuli and a more reliable way to measure arousal would be crucial for a more comprehensive experiment.

Another obvious limitation of this study is the risks that come with self-report surveys and measures of feelings and perceptions. Self-reporting measures can lower the reliability due to misunderstanding or misinterpretation of questions. Even though the question measuring arousal was connected to the stimuli, i.e. "How do you feel *after watching the advertisement?*", there is room for misunderstanding as the respondents' answers might reflect their current mood and feelings and not their feelings generated by the stimuli itself. Another risk with self-report surveys is that answers can be biased to what the respondents believe is a more socially acceptable answer.

Furthermore, since the data was gathered during a short period of time and at only one occasion, the sufficiency of the results is limited. The experiment would have to be conducted several times in order to increase reliability.

6.4 Future research

The findings show that there are tendencies indicating that advertising that underestimates consumers' intelligence to some extent affects cognitive ability. As the tendency towards causality between advertisements that underestimate consumers' intelligence and decreased cognitive ability is novel, more research with enlarged studies is needed to develop this research

field. Given the limitations of methodology, our hope is that this study will be replicated with stronger stimuli and more reliable means to measure the theoretical processes, in order to test if the tendencies showed in this study can be generalized.

A suggestion for future research is to consider other types of advertisements that underestimate consumers' intelligence and investigate if these can affect consumers' cognitive ability. Further, using other media than print advertisements, suggesting video, where individuals can be more engaged by using more senses and with longer exposure time, would presumably generate stronger reactions and effects. Furthermore, is it proposed for future research to examine cognitive or personal traits, other than ad skepticism, that could affect the magnitude and direction of the priming effect.

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8 Appendices

8.1 Stimuli for the experimental group

8.1.1 Overly simple advertisements



“25 Pounds in Only 2 Weeks!”

Scientists Discover Rare Weight-Loss “Wonder Herb”

- ✓ Clinically Proven Fast Weight Loss!
- ✓ Rapidly Melts Away Belly Fat!
- ✓ Get the Body You Deserve in 2018!

The advertisement features a woman in a white crop top and blue jeans, holding a measuring tape around her waist. To the right is a bottle of the supplement, labeled 'SUNQUICK'.



Gain 700% More Muscle in 7 Weeks!

“Powerful Muscle-Building Results”

Before After 30 Days!

#1 for Muscle Building

The advertisement features a bodybuilder in a blue posing trunks. To the left is a before/after comparison of a man's physique. In the center is a bottle of the supplement, labeled 'C9-T11'.

8.1.2 Overly persuasive advertisements



AB Doer **360**

360
RÖRELSE

RIKTAR IN SIG PÅ ALLA
DINA MAGMUSKLER

AKTIVERAR
DINA MUSKLER

MASSERAR DIG
MEDAN DU TRÄNAR

GÖR ÖVER
3 MILJONER
NÖJDA ANVÄNDARE
ÖVER HELA VÄRLDEN

*Kombinerar fettförbränning
med muskeltoning!*



Get a Celebrity
**Smile in
Days!!**

- No messy, Strips or trays to wear
- No Costly dental visits
- Helps remove plaque
- Easy to Apply in seconds
- Polishes While Whitening
- Professional results at home

BEFORE **AFTER**

**LIMITED
TIME
OFFER**

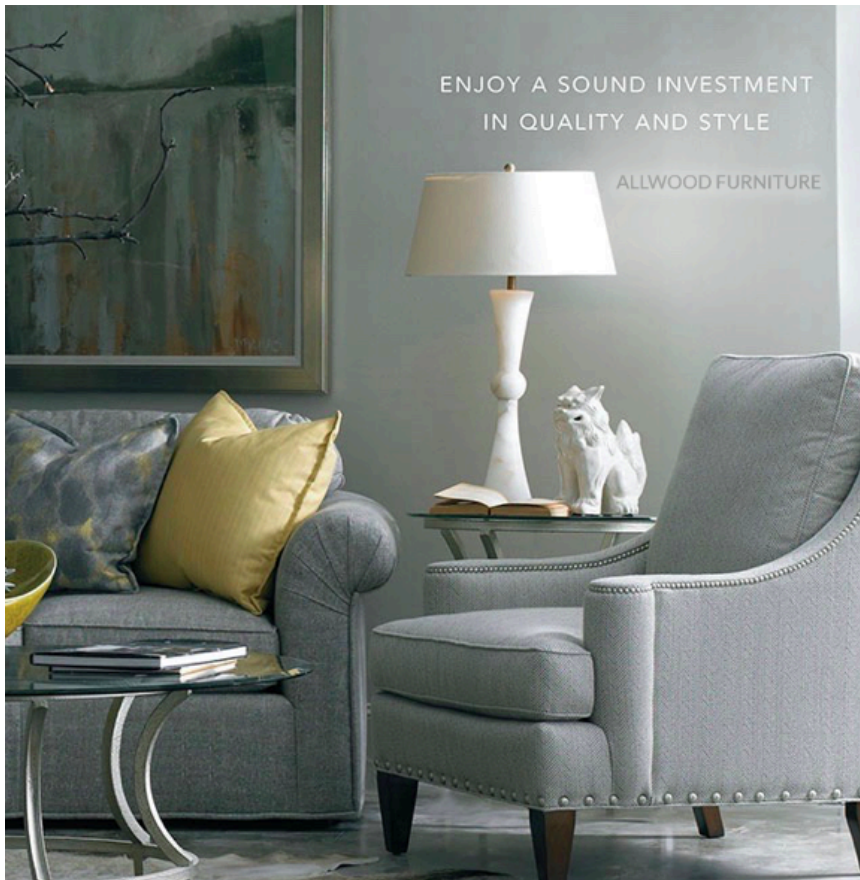
CLICK HERE
for Your Risk
FREE* Trial
*Only Pay \$/H

AttoWhite
Teeth Whitening

8.1.3 Primitive advertisements



8.2 Stimulus for the control group



8.3 Main study: the survey

(Swedish)

Undersökning om reklamannonser

Den följande studien utförs på uppdrag av forskare som är intresserade av att undersöka effekter av olika reklamannonser. Enkäten beräknas ta 5 minuter. Dina svar är anonyma.

På nästa sida kommer du att se en reklamannons. Observera annonsen noga och svara sedan på frågorna som du kan klicka dig vidare till efter 10 sekunder.

Tack för din medverkan!

(stimulus print advertisement)

En fotboll och en fotbollspump kostar tillsammans 110 kr. Fotbollen kostar 100 kr mer än pumpen. Hur mycket kostar pumpen?

- ☐ 5 kronor
 - ☐ 10 kronor
 - ☐ 100 kronor
-

Om det tar 5 maskiner 5 minuter att tillverka 5 fotbollar, hur lång tid tar det för 100 maskiner att tillverka 100 fotbollar?

- ☐ 5 minuter
 - ☐ 10 minuter
 - ☐ 100 minuter
-

I en sjö finns det ett täcke med näckrosor. Varje dag blir näckrostäcket dubbelt så stort. Om det tar 48 dagar för hela sjön att bli täckt av näckrosor, hur lång tid tar det för näckrosorna att täcka halva sjön?

- ☐ 5 dagar
 - ☐ 24 dagar
 - ☐ 47 dagar
-

Hur känner du dig efter att ha tittat på annonsen?

	Stämmer inte alls	2	3	4	5	6	7	8	9	Stämmer helt
Energisk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trött	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spänd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lugn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Hur var processen att studera annonsen?

	Stämmer inte alls	2	3	4	5	6	7	8	9	Stämmer helt
Svår	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oklar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oförståelig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ansträngande	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Vad är din åsikt om annonsen?

	Stämmer inte alls	2	3	4	5	6	7	8	9	Stämmer helt
Den är övertygande	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Den är trovärdig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Den försöker få personer att köpa produkter de egentligen inte behöver	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Vad är din inställning till reklam i allmänhet?

	Stämmer inte alls	2	3	4	5	6	7	8	9	Stämmer helt
Jag anser att reklam generellt är sanningsenliga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag kan bedöma om ett reklamerbjudande är för bra för att vara sant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag är i allmänhet kritiskt inställd till reklam	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ange kön

- ☐ Man
- ☐ Kvinna
- ☐ Annat

Ange ålder. Använd endast siffror.