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- How priming influences elaboration and advertisement attitude -

The underlying mechanism of conceptual fluency

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Kind regards

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Summary

To our recollection, a theoretical gap in previous priming research, especially within contextual priming, is the failure to include fluency as the explaining mechanism behind priming effects. This is a limitation, as fluency theory predicts different effects of priming on elaboration and argument sensitivity, than what has been proposed by e.g. Samuelsen (2004). Moreover, to our knowledge, prior studies have not compared effects of different priming methods. The purpose of this study was therefore two-folded: First, we aimed to include fluency theory as the explanation behind priming effects, and see how priming influenced elaboration and advertisement attitude. Second, we tried to make a methodological contribution, by comparing contextual (editorial) priming and sentence scrambling. A study extending Samuelsen's (2004) dissertation was therefore conducted.

Using the ostensibly unrelated procedure, participants where either primed with an editorial or a sentence scrambling task, making a functional or experiential concept salient. This was done to manipulate level of congruence, resulting from the match between the content of the prime and the content of the advertisement. They were then exposed to one of two versions of a functional advertisement for a fictitious shampoo brand, consisting of either strong or weak arguments, and asked to give cognitive responses and attitudes towards the advertisement.

Five hypotheses where then tested. Although these were not statistically supported, the findings have important theoretical and practical implications. The most remarkable was that fluency theory only seems applicable for contextual priming, as participants in both the congruent and incongruent conditions were insensitive to the argument quality manipulation. This is likely the result of the task only requiring a low level of task involvement. For sentence scrambling participants, however, fluency theory is discarded. Here, level of congruence affected elaboration. Participants in the congruent conditions were more likely to elaborate, and as a consequence, they were more sensitive to argument quality manipulations. This resulted in less fortunate advertisement attitudes if weak arguments compared to if strong arguments. This enhanced argument quality sensitivity is probably due to higher task involvement. This finding was in line

with Samuelsen's (2004) reasoning, which is based on the multiple roles of persuasion variables postulate in the ELM: Congruence is likely to facilitate elaboration, as the primed content is both more accessible and applicable to the target - two prerequisites necessary for the priming effect to occur.

1.0 Introduction

In an increasingly competitive market environment, marketers have to come up with new and creative ways to make their products accessible in consumers' minds to be considered in purchase situations. Consumer behavior has shown to be influenced by different marketing tactics, including the use of brand names, slogans, endorsers, pricing and sales people. Their influence often happen automatically, in subtle ways that consumers are not aware of or cannot control. (Laran, Dalton and Andrade 2010). A new growing topic within the field of marketing that deals with unconscious influence is priming. According to Higgins (1996), "priming" refers to procedures that stimulate or activate some stored knowledge in memory. Theory suggests that perceptually or conceptually related stimuli (primes) can influence product evaluations and choice (e.g. Berger and Fitzsimons (2008)), as priming activates stored knowledge and makes it temporarily more accessible (Higgins 1996). Marketers have therefore realized the importance of environmental cues on consumer behavior, as they can use priming to make particular brands or products more accessible by exploiting factors in the environment. This suggests that marketers should develop brand names, logos, slogans, advertisements and editorial contexts according to prevalent cues in their environment in order to achieve desired effects.

This paper will report on findings from a study looking at how priming makes certain concepts more salient and thus used in a subsequent evaluation task. The study was an extension of Samuelsen's first study (2004), which tested how degree of congruence between an editorial context and an advertisement affects elaboration and evaluation of a brand, and hence brand attitude. Among other things, he found that congruently primed participants were significantly more sensitive to the argument quality manipulation than incongruently primed participants, meaning that congruence leads to more elaboration. Samuelsen (2004) explained this using persuasion theory and the multiple roles of persuasion variables postulate of the ELM (Petty and Cacioppo (1986); Petty and Wegener (1998); Petty and Wegener (1999)). It might very well be that his reasoning holds. However, Samuelsen (2004) did not have an explanation behind this postulate – he did not mention the underlying mechanism behind the priming effects - processing fluency, as evidenced by e.g. Berger and Fitzsimons (2008). Based on

fluency theory, we propose findings to be in the opposite direction from what could be expected from Samuelsen's reasoning (2004). More specifically, we think that degree of fluency (congruence = high fluency, incongruence = low fluency) might affect degree of elaboration. We propose that high fluency actually might make a person less sensitive to argument quality, as it might give him or her a feeling of familiarity, and thus make the person simply accept things he/she would otherwise have elaborated upon. In the other case, a person exposed to an incongruent editorial context – advertisement situation, might react to this inconsistency and unfamiliarity. This makes him or her more alert to the information in the advertisement, resulting in a higher degree of elaboration. Moreover, Samuelsen (2004), like other researchers using contextual priming (e.g. Yi (1990b); (1991); Jiang and Tao (2011)), did not mention fluency in his paper. He expected that his participants were primed, however could not tell with certainty. It is thus uncertain whether fluency theory is applicable to contextual priming.

As already mentioned, the priming method used by Samuelsen (2004) was contextual priming, as he used an editorial context to prime participants with functional and experiential concepts before they read the functional advertisement. We, however, compared two conceptual priming methods: the more traditional sentence scrambling task and contextual priming. Another distinction from the study by Samuelsen (2004) is that the current study used advertisement attitude, rather than brand attitude, as the dependent variable. There are good reasons for this choice. Prior research has shown a positive effect of advertisement attitude on brand attitude (Goldsmith, Lafferty and Newell (2000); Wahid and Ahmed (2011)), a relationship found to be stronger for novel brands than familiar brands (Brown and Stayman (1992); Wahid and Ahmed (2011)). In our study, the target is a fictitious new shampoo brand, meaning that it is a "clear sheet" in consumers' minds. In such a situation, it is vital that marketers use any tool available to link the brand to a suitable category and usage situation. However, there are already established brands in these positions. Hence, the advertisement will be an important antecedent to establish brand attitudes for the new brand. The product category also supports looking at advertisement attitudes. Depending on hair type, a shampoo has different effects and must often be tried by the consumer for real effects to be revealed. Accordingly, a shampoo can

perhaps be better classified as an experience product than a search product, as trial is the only way all relevant attributes can be assessed, and confidence in brand attitudes held (Nelson (1974); Girard and Dion (2010)). Advertisement attitude therefore served better as the dependent variable in this study.

Overall, the purpose of this paper is two-folded. First, we aim to include fluency theory as an explanation for priming effects, and see how priming influences elaboration and advertisement attitudes. More specifically, we want to see if fluency theory is applicable - especially concerning contextual priming. As to our knowledge, this has not previously been done. Second, we try to make a methodological contribution by comparing contextual priming and sentence scrambling. Basically, this paper will try to answer the following research questions:

RQ1: Do attitudes formed under different levels of congruence between the prime and the content of the advertisement, and hence different levels of conceptual fluency, arise from different levels of elaboration?

RQ2: Is this potential effect different across priming procedures?

In order to test our reasoning and see whether there are consistency in results between priming methods, respondents were exposed to either contextual priming in the form of an editorial (as used by Samuelsen (2004)), or a sentence scrambling task before being exposed to the prime target - a fictitious shampoo brand in an advertisement. Moreover, we manipulated argument quality and level of congruence (fluency) between the prime and the advertisement. To our knowledge, there has not previously been any argument quality manipulation in combination with priming research (except for Samuelsen's (2004) study), especially not in combination with sentence scrambling. We therefore found it interesting to include this in our research. Furthermore, respondents were asked to list their thoughts and attitudes towards the advertisement and the brand. We also controlled for participants' need for cognition and product category involvement, as these variables have an influence on elaboration and presumably on attitudes. Hence, this study was an extension of Samuelsen's (2004) work, bringing new

insights into priming methodology and the relationship between congruence, elaboration and attitudes.

2.0 Literature Review

Based on the research questions presented in the previous chapter, it is now necessary to clarify the study's main variables, basic theory and previous research within the area. We will therefore first explain what congruence is, and how it could be varied through the priming methods used. We then give a more detailed description of what priming is, including the prerequisites for priming effects to occur, namely accessibility and applicability. We will then bring attention towards attitudes and the process of how they are formed, as there are reasons to believe that different priming methods have different effects on the extent of elaboration and attitude responses. Finally, we will go deeper into fluency, which is the mechanism explaining the priming effects.

2.1 Congruence

The main variable in this study, and the one we seek to create through different priming techniques, is congruence. Related to Samuelsen's (2004) and the current study, congruence could be explained as the level of match between the prime and the advertisement, or as when there are shared and overlapping properties between them, which might result in a feeling of harmony or agreement. Basically, congruence will vary depending on the match between the prime and the advertisement that follows. Samuelsen (2004) manipulated congruence by exposing participants to either a functional editorial and functional advertisement (congruence), or an experiential editorial and functional advertisement (incongruence). A question of interest in the current study is whether congruence makes a person elaborate more or less. While Samuelsen (2004) argued and found support for congruence leading to more elaboration, Meyers-Levy and Tybout (1989) found that moderate incongruence induce elaboration, as some differences is necessary to create a cognitive process. The latter authors argued that since congruence is not noteworthy, it does not lead to much elaboration, while some degree of incongruence increases arousal and the need to elaborate to resolve incongruity. One is however more likely to resolve incongruity in a situation with

moderate incongruity than extreme incongruity, leading to more positive evaluations in case of moderate incongruence than extreme incongruence or congruence (Meyers-Levy and Tybout 1989). However, it is difficult to achieve moderate incongruity as a baseline, as experienced congruence is individual. As an example, experts could perceive what is moderately incongruent for novices as congruence, as they easier could resolve incongruity (Meyers-Levy and Tybout 1989). Therefore, as in Samuelsen's study (2004), congruence is manipulated into only two levels in the current study: congruence and incongruence. However, as we introduce processing fluency as the mechanism underlying priming effects, we expect to find different results than him. Basically, the effect of varying levels of congruence is created by priming, which is explained by fluency. Fluency theory suggests that elaboration increases with incongruence. Chapter 2.4 will explain this theory in detail. The preceding chapter, on the other hand, will give a thorough description of priming.

2.2 Priming

In this chapter, we will first present some definitions, benefits and effects of priming. We then explain the difference between subliminal and supraliminal priming, before describing three types of priming and the two techniques used in this study. Finally, the prerequisites for priming effects to occur – accessibility and applicability, will be discussed.

2.2.1 What is priming?

Different definitions of priming have been proposed: It is a procedure which unconsciously increases the accessibility of some construct or category temporarily in memory (Sherman, Mackie and Driscoll (1990); Samuelsen (2004)), or a tool that can be used to influence consumers' behavior without them knowing (Wheeler and Berger 2007). Furthermore, Higgins (1990, 306) defines contextual priming as "a situational factor that creates momentary individual differences in construct accessibility", while Bargh and Chartrand (2000, 255) define priming as "how recent or current experience passively (without an intervening act of will) creates internal readiness". Moreover, Bargh and Chartrand (2000) mention that this hidden process happens passively and that

internal mental states mediate the effects environmental cues have on individuals' thoughts, feelings and behaviors. As a result, primed people process and respond to stimuli differently than otherwise. (Bargh and Chartrand 2000). In other words, we can see priming as a process that unconsciously affects an individual's psychological processes and responses, as environmental cues make some specific knowledge easier to retrieve in a subsequent situation, thus influencing e.g. attitudes and choices. Among the things that can become relatively accessible through priming are primed product attributes (Yi 1991), stereotypes and trait concepts (Bargh, Chen and Burrows 1996), moods (Andrade 2005) and emotions (Kühne et al. 2011). Evidence of how priming can effect later evaluations and preference judgments can be found in Sherman, Mackie and Driscoll's study (1990). They primed participants with either "foreign policy" or "economic matters" to activate the respective category in their minds. They found that participants were more likely to evaluate political candidates based on information relevant to the activated dimension, rather than on equally relevant, but less accessible information. In this study, we take a deeper look at how concepts could be primed and used in a subsequent evaluation task. In accordance with the findings of Sherman, Mackie and Driscoll (1990), we propose that the same results can be found if participants are primed with a specific concept – e.g. that a person primed with functional words will have the functional concept activated, and hence will use this in subsequent evaluations, as it is more accessible at the time.

Priming can be a great method to gain access to consumers' attention. According to Posner (1978), conscious attention has limited capacity as its utilization for processing one type of stimulus reduces the efficiency of processing another stimulus. In addition, people want to use as little energy as possible to make sense out of their surroundings, often resulting in selective processing. This way, information that matches the construct of our attention is processed, while information not matching is inhibited (Higgins and King 1981). This means that marketers might have difficulties introducing new brands not fitting a product category, or if the consumer's attention is elsewhere. However, according to both Higgins and King (1981) and Posner (1978), when a construct is primed or activated unconsciously, both matching and not matching information of the construct will be processed. The priming methods used in our study could

therefore be great tools for the new shampoo brand to gain access to our respondents' attention.

Priming can be used in two ways: subliminally – the prime is not accessible to the individual and thereby one has no chance of controlling the influence, or supraliminally – where the individual is aware that there is a prime, without knowing of its influence (Samuelsen 2004). The current research will test the use of supraliminal priming. It is likely that participants are aware of the priming stimuli, as they have to either read an article or construct sentences. However, if our cover stories work as intended, it is less likely that they perceive how this affects their evaluations. This is important for the priming effects to occur. If participants are aware of its influence, contrast effects might appear, as they try to correct for it – leading to an adjustment away from the presumed effect of the prime (Bargh and Chartrand 2000). This is also mentioned by Whittlesea and Williams (2001a), who say that subjects are able to discount for a prime's influence when they are aware of it.

2.2.2 Types of priming

Bargh and Chartrand (2000) proposed a distinction between three types of priming: mindset priming, conceptual priming and sequential priming. While the latter tests for chronic connections between two representations, and is used for studying the mind's associative structure, the other two are more relevant for our research. According to Bargh and Chartrand (2000, 258), "conceptual priming involves the activation of mental representations in one context, so that they exert a passive, unintended, and nonaware influence in subsequent unrelated contexts until their activation dissipates." Mindset priming, on the other hand, is explained as one in which "the participant actively engages (or read about someone else so engaged) in goal-directed type of thought in one context to show that this mindset (Gollwitzer 1990) what goal to pursue in the situation – is more likely to operate later in an unrelated context." In this case, a procedure or a purposive way of thinking is primed. (Bargh and Chartrand 2000, 258). In conceptual priming, the prime could be both subliminal and supraliminal, as long as the participant does not see the relationship between the priming event and the later use of it in the unrelated situation. To ensure that participants do not see this relationship,

experimenters often make use of the ostensibly unrelated experiments procedure. In the mindset priming situation, however, this unrelated–tasks requirement is more lenient. (Samuelsen 2004). In our research, participants are primed to use a specific concept (either functional or experiential) in a subsequent evaluation task. As they do not know the link between the two tasks (reading the article/making sentences and evaluating the advertisement and brand), they do not make use of the primed concept intentionally. Our procedure therefore relates more to conceptual priming than mindset priming, as mindset priming requires more motivation on behalf of the respondent to intentionally follow the primed concept in a subsequent task. However, as Samuelsen (2004) explains, it is not necessarily 100% conceptual priming either, as it is difficult for us to be totally sure that the two tasks are different enough to adhere to the unrelated-task procedure. Anyhow, we will say that our method leans more towards conceptual priming than mindset priming.

2.2.3 Priming methods used in this study

The current study will make use of two priming methods within conceptual priming: contextual priming and sentence scrambling. Sentence scrambling is a frequently used supraliminal priming method and a traditional way to prime concepts (Bargh and Chartrand 2000). Prior research (Chartrand and Bargh (1996); Srull and Wyer (1979); Bargh, Chen and Burrows (1996)) shows that what is primed is used subsequently in an unrelated task. This is a great priming method in that it precisely primes a target concept, at least if one uses several synonyms of the target. The use of several synonyms is important for two reasons: First, it will increase the accessibility of the right concept, and hence the preciseness of the priming method. Second, many synonyms will also avoid sacrificing the hidden agenda behind the priming task. However, including too many could have the opposite effect and make the purpose visible for participants. (Srull and Wyer (1979); Bargh and Chartrand (2000)). Thus, if done correctly, a sentence scrambling task primes quite accurately what the researcher intends. As an example, Chartrand and Bargh (1996) used sentence scrambling to prime either an impression formation or a memorization goal. For each of 15 items, participants were required to form a grammatically correct four-word sentence from five words presented in scrambled order. In one condition, words related to

forming an impression of someone (e.g. opinion, personality, evaluate) were embedded in 13 of the items, while words related to memorizing information (e.g. absorb, remember, retain) were embedded in 13 of the sets in the other condition. All remaining words were neutral with respect to both goals.

In a natural purchase situation, however, a consumer will not be exposed to a sentence-scrambling task – it would at least not be perceived as natural by the consumer. It is thus not a suitable priming method for marketers who want to influence consumers' evaluations and choices. We therefore find it interesting to also look at contextual priming, as this is a potentially more useful priming method for marketers. This method is easier to use, as stimuli that naturally occur in consumers' environment could prime. A researcher that has made use of contextual (editorial) priming, is Yi. In Yi (1990b), participants were first exposed to a print ad for a personal computer different from the target computer brand, emphasizing either versatility or ease of use. Even though all respondents at a later stage saw the same target ad of a computer, the priming manipulation enhanced the likelihood that subjects who had earlier seen the versatility-ad encoded the provided information in the target ad in terms of versatility, instead of ease of use, and vice versa. In this, and several other studies, Yi (1990a); (1991); (1993)) found that contextual material affected processing of ambiguous information in advertisements, and as a result influenced evaluations. Contextual priming can thus be a great tool for marketers. However, one potential limitation of contextual priming is that it could make several concepts more accessible – both those intended and unintended by marketers, as it depends not only on the prime, but also the respondent's cognitive mental structures. Moreover, there is also a gap in the priming literature, especially within contextual priming, as previous research using this technique (e.g. Yi (1990b, 1993), Samuelsen (2004); Jiang and Tao (2011)), do not mention fluency at all. Therefore, we find it interesting to see whether fluency is an applicable explanation for contextual priming.

As mentioned by Samuelsen (2004), there are however two important prerequisites for a priming effect to occur, namely accessibility and applicability. We will now turn our attention to these two prerequisites.

2.2.4 Accessibility & applicability

Knowledge cannot be activated or brought to mind unless it is available in memory. Availability is thus a necessary condition for accessibility. (Higgins 1996). Higgins (1996, 134) defines accessibility as "the activation potential of available knowledge." Further, Higgins and King (1981, 71 (italics in original)) define construct accessibility as *"the readiness with which a stored construct is utilized in information processing."* When an individual is primed, a stored knowledge unit is activated, increasing the unit's accessibility temporarily. This in turn, increases the likelihood that this knowledge unit will be activated by subsequent stimulus information. Accessibility is therefore increasing the likelihood that some stored knowledge will be activated. (Higgins 1996). Moreover, the more accessible a construct is, the more likely it is that information relating to the construct will be retrieved (Higgins and King 1981). Applicability means that there needs to be a sufficient match between the features of the mental construct, and the features of the stimulus (Samuelsen 2004). The greater the overlap between the features of the mental construct (knowledge) and the features of the stimulus, the more applicable is the knowledge to the stimulus, and the more likely it is that the knowledge will be activated in the presence of the stimulus (Higgins 1989). In relation to our research, the functional and experiential words in the editorial and sentence scrambling tasks must be accessible and moreover applicable to the fictional new shampoo brand in order for the priming effects to occur.

Higgins, Rholes, and Jones (1977) mention that situational cues or primes automatically can activate associated representations in memory, and thus make them more accessible. Many researchers in cognitive and social psychology (e.g. Higgins, Rholes and Jones (1977); (Samuelsen 2004)) have found that the accessibility of a certain concept is enhanced by prior exposure to the concept. The more recently a concept is activated, the greater the accessibility (Yi 1991). This can be related to Wyer and Srull`s "storage bin" model, in which knowledge units, such as constructs, are stored in different storage bins (Higgins 1996). A recently activated concept is placed to the top of a layered bin, and is most likely to be used in interpreting new incoming information (Yi 1991), as the relevant bin is searched top down when a stimulus appears (Higgins 1996). This implies that thoughts generated at the time of prime exposure, e.g. either an editorial or a

sentence scrambling task, are those that are most likely to be available when exposed to the advertisement. Therefore, it is likely that when primed with e.g. a functional concept, this is most likely to be salient when reading an advertisement in a subsequent task.

The purpose of this review was to describe what happens mentally when one is exposed to a stimulus before seeing an ad. Basically, congruence is varied through priming to be either congruent (match between the prime and the ad) or incongruent (mismatch between the prime and the ad). Being exposed to a prime – either an editorial or a sentence scrambling task with functional or experiential words, will prime the person with a functional or experiential concept, respectively. The respective concept should therefore be more accessible and applicable in a subsequent evaluation task. As mentioned, it is likely that the level of congruence will affect elaboration. As a result, attitudes will also be affected. The purpose of the next chapter is to take a deeper look at the relationship between congruence, elaboration and attitudes.

2.3 Attitudes, the ELM and elaboration

Since attitudes are an important driver for brand choice (Nedungadi 1990), it is important to find ways to change consumers' attitudes about products and brands. Eagly and Chaiken (1993, 1) define an attitude as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor." A strong attitude is the result of relatively effortful cognitive elaboration, meaning that the way people process things affects attitude strength (Haugtvedt and Petty 1992). According to Petty and Wegener (1999), a person engages in elaboration when he or she adds something of his or her own to the provided information.

According to the elaboration likelihood model (the ELM), which is a dual-process theory, attitude changes arise from one of two routes reflecting different degrees of elaborative information-processing activity: the central route, in which one participates in relatively effortful and extensive information-processing about the issue under consideration, and the peripheral route, which typically requires less cognitive effort and where persuasion results from non-issue-relevant concerns,

such as the attractiveness of the message source and one's social role (Petty and Wegener (1999); Petty and Cacioppo (1981)). Elaboration varies along a continuum, and a person's place along it depends upon his or her motivation and/or ability to think (Petty and Wegener 1999). Degree of motivation and ability is affected by different variables; variables that are part of the persuasion situation itself (e.g. the advertising context) (Samuelsen 2004), or variables more specific to the consumer. Among them are issue involvement (Petty and Cacioppo 1979) and need for cognition (Cacioppo and Petty 1982). High issue involvement is associated with greater personal relevance, consequences and more personal connections (Krugman (1965); Sherif and Hovland (1961); Petty and Cacioppo (1979); Engel and Blackwell (1982)), and by some researchers also defined in terms of the specific issue or product considered (Rhine and Severance (1970); Lastovicka and Gardner (1979)). Need for cognition is defined by Cacioppo and Petty (1982, 116) as "the tendency for an individual to engage in and enjoy thinking." Individuals on the high-end of the scale enjoy thinking, while those that avoid effortful thinking score low (Haugtvedt, Petty and Cacioppo 1992). As need for cognition and involvement with the product category are likely to have an effect on the degree of elaboration and attitudes, we included these variables as covariates in our study.

According to Petty (1997), the way one elaborates along the continuum can differ in both quantitatively and qualitatively ways. Samuelsen (2004, 27) summarized the difference in a good way:

> "whereas the quantitative distinction relates to amount of elaboration leading to the judgment, the qualitative distinction relates to differences in processes leading toward the judgment."

For example, a person who engages in central route processing might take his time elaborating on all available information in an advertisement in order to assess the central merits of it, while a person using the peripheral route might just take a quick look at e.g. the endorser or the number of arguments, and draw simple inferences from it (Petty 1997).

According to Samuelsen (2004), the multiple roles of persuasion postulate of the ELM could be used to explain why congruence between the contextual prime and the advertisement content might affect elaboration. The postulate states that:

> "…variables can influence judgments (1) by serving as arguments relevant to determining the merits of an object or position, (2) by biasing the processing of attitude-relevant information (both of which are most likely when motivation and ability to scrutinize attitude-relevant information are high), (3) by serving as peripheral cue (when motivation and ability is low), and (4) by itself affecting the level of scrutiny given to attitude-relevant information (when elaboration is not constrained by other factors to be particularly high or low)" (Petty and Wegener (1998, 344); Petty and Cacioppo (1986, 16); Petty and Wegener (1999, 48)).

More specifically, Samuelsen (2004) took a deeper look at role 4 in the postulate – how congruence itself affects elaboration. He further argued for that participants' motivation and ability to elaborate was moderate in his situation, hence moderate elaboration was seen as the baseline. His goal was then to see whether congruence affected elaboration positively or negatively. He argued as follows, referring to Tybout, Sternthal and Calder (1983):

> *"As argued by e.g. Tybout, Sternthal and Calder 1983, elaboration is facilitated by the ease with which one can integrate or relate new and existing information, or specifically, elaboration is likely to occur when new information is related to a concept for which people have many associations in memory. Hence, the more applicable the primed memory content is to the advertisement, the more elaboration should be facilitated" (Samuelsen 2004, 32).*

He therefore proposed that sensitivity to argument quality should increase with higher congruence, as congruence leads to more elaboration. On the other hand, he mentioned that less or no sensitivity to argument quality would be seen in the incongruent situation. (Samuelsen 2004). As already mentioned, he found support for this in study 1. This could very well be the case, however, we are not entirely convinced, as another theory has to be taken into account. "Everyone" knows what priming is and that it has something to do with accessibility and applicability. However, the explanation and underlying mechanism leading to priming effects is processing fluency, which will be further explained in the next

chapter. As we will see, fluency theory predicts opposite results compared to those found by Samuelsen (2004).

2.4 Processing Fluency

In this chapter, we will first define processing fluency, explain why high fluency is positive, and show the difference between processing fluency and mere exposure. Then, we describe the two types of processing fluency, perceptual and conceptual fluency, and include examples of how it occurs.

2.4.1 Processing fluency vs. mere exposure

As already mentioned, processing fluency is the underlying mechanism producing the priming effects (as shown in Berger and Fitzsimons (2008)). Reber, Fazendeiro and Winkielman (2002) define processing fluency as the speed and accuracy of stimulus processing. Novemsky et al. (2007) also mention that this fluency varies with the effort a stimulus is processed, and that fluency is experienced when it is easy to access memories and generate thoughts, as well as to process externally presented stimuli. The underlying assumption is that high fluency is positive (Reber, Schwarz and Winkielman (2004); Winkielman et al. (2003)). While high fluency refers to a positive state of affairs, either within the cognitive system or environment, low fluency is indicative of negative states (Winkielman et al. 2003).

Reber, Schwarz and Winkielman (2004) conclude that high fluency is positive as it is associated with progress toward successful recognition of the stimulus, error-free processing, or the availability of appropriate knowledge structures to interpret the stimulus. This fits with a proposition in the processing fluency/attribution model: when exposed to a stimulus at an earlier phase, it is easier to perceive, process and encode when exposed to it at a later stage (Bornstein and D'Agostino 1994). The reason is a resulting feeling of familiarity (Higham and Vokey 2000), which represents a vague sense of prior encounter (Kinoshita 1997).

There is evidence that frequent exposures of a stimuli can enhance liking for a target (e.g. Berger and Fitzsimons (2008); Zajonc (1968)). This can be explained

by the mere exposure effect, which is defined by Seamon et al. (1995, 711) as "the increase in positive affect that results from the repeated presentation of previously unfamiliar stimuli". They further mention that this effect can be observed even for unrecognized stimuli. Moreover, they found that the mere exposure effect is the result of implicit memory. (Seamon et al. 1995). This means that for a mere exposure effect to occur, the exposure stimuli and the target must be totally identical. Thus, the same symbol must be present during exposure and a subsequent task.

On the other hand, Anand and Sternthal (1991) mention that prior exposures enhances fluency, which leads to a more favorable attitude towards the target. Fluency has more applicable value than the mere exposure effect, as there is no requirement that the exposure stimuli is identical to the target for a more positive attitude to be formed – degree of feature similarity is not an issue. Zajonc (1968) proposes a possible explanation why prior exposures increases liking: while a stimulus presented for the first time evokes an instinctive fear reaction, several exposures will decrease this displeasure and evoke interest for the stimulus. It is therefore less likely that the stimulus will be perceived as harmful, due to the feeling of familiarity (Zajonc 1968). However, it is important to know that judgments will only be positively influenced as long as people do not expect fluency. Then they will not reflect on or correct for it. When subjects are unaware of the prime, they are more likely to attribute the enhanced fluency to a prior experience and experience an illusion of familiarity (Whittlesea and Williams 2001a). Novemsky et al. (2007) further mention the importance of this feeling of familiarity, as people associate it with truth, which is highly relevant when making judgments. In addition, Wheeler and Berger (2007) mention that prior exposure and encounters with a target, leading to a sense of familiarity, must be present in order for a prime to sufficiently increase accessibility. Seen in relation to our study, this tells us that we can expect only the congruently primed participants to experience the feeling of familiarity and fluency, as those exposed to the incongruent prime will not see any resemblance between the prime and the target, and will therefore see the target as unfamiliar. Moreover, it is important that we manage to obscure the purpose of the prime so that participants do not correct for it.

2.4.2 Perceptual and conceptual fluency

According to Winkielman et al. (2003), processing fluency can be divided into perceptual- and conceptual fluency. However, they mention that perceptual and conceptual processes may operate together and support each other, especially when stimulus' information is poor. Reber, Wurtz and Zimmermann (2004, 48) define perceptual fluency as the "subjective experience of ease with which a person can process incoming information," and further mention that these low-level processes are concerned mainly with the form of the stimulus. In other words, perceptual fluency is how easily an object can be identified and recognized. Moreover, Bornstein and D'Agostino (1994) believe that enhanced perceptual fluency is the underlying driver behind the aforementioned mere exposure effect. A good way to exemplify the process of perceptual fluency is to look at Mandler's (1980, 252-253) example of an everyday experience:

> "Consider seeing a man on a bus whom you are sure that you have seen before; you "know" him in that sense. Such a recognition is usually followed by a search process asking, in effect, Where could I know him from? Who is he? The search process generates likely contexts (Do I know him from work; is he a movie star, a TV commentator, the milkman?). Eventually the search may end with the insight, That's the butcher from the supermarket!"

Anand and Sternthal (1991) mention that recognizing the person as familiar is likely to be based on perceptual fluency, whereas recognizing that it was the butcher involves a direct search in memory. According to Reber, Schwarz and Winkielman (2004), variables like perceptual priming, clarification, presentation duration, repetition or figure-ground contrast influence perceptual fluency. An other example of perceptual fluency can be found in Berger and Fitzsimons' pen-color study (2008), where exposure to perceptually related environmental cues was found to influence product choice. More specifically, they found that exposure to a colored pen made participants choose more products of the same color when faced with different choice pairs - they chose more green (orange) products when exposed to the color green (orange).

When it comes to conceptual fluency, Reber, Wurtz and Zimmermann (2004, 48) mention that it reflects the "ease of high-level processes concerned primarily with stimulus meaning and its relation to other semantic knowledge structures." Hence,

conceptual fluency is induced, among other things, by context congruity, semantic coherence, semantic priming and rhyme (Kelley and Jacoby (1998); Topolinsky et al. (2009); Whittlesea (1993); McGlone and Tofighbakhsh (2000)). Moreover, Berger and Fitzsimons (2008) found that frequency of exposure to conceptually related cues affects an object's conceptual fluency, explaining why conceptual priming elicits positive evaluations. They found that exposure to dog images increased evaluations of Puma sneakers to the extent that participants had a conceptual link between the cue (dogs) and the products (Puma sneakers). This shows how different fluency is from the mere exposure effect – the exposure stimuli does not have to be identical to the target, but rather occurs due to semantic similarity. This could be explained by Collins and Lofthus' (1975) spreading activation theory, which state that there is evidence that cognitive associations in memory might make the activation of one construct spread to related constructs. Berger and Fitzsimons (2008) suggest that being exposed to dog images might activate the cat category, since these animals have feature similarities leading to a strong cognitive association in memory (Smith, Shoben and Rips 1974). Berger and Fitzsimons (2008) therefore assumed that when the cat category is primed, pumas become more accessible.

As another example of conceptual fluency, we can imagine a situation where a person is exposed to a bowl of pears right before he/she is supposed to pick a gift card from either iTunes (an Apple product) or Spotify. The bowl of pears will activate the construct "pear" which will spread to the related construct "fruit". This will further spread to other members of the "fruit"-category, e.g., apples. This is likely as pears and apples are high in conceptual fluency - in everyday speech, we often mention "apples and pears" in the same sentence. Hence, they are likely to be closely linked in memory. As we all know, an apple is a highly visible part of the Apple logo. Therefore, when pears are used as a prime, Apple will become more accessible and applicable through the link between apples and pears. If consistent with Berger and Fitzsimmons' findings (2008), we could expect that this person will evaluate iTunes more favorably as a result of high conceptual fluency, and therefore choose this gift card over Spotify.

In summary, perceptual fluency refers to external fluency, as it depends upon seeing the similarity between an external stimuli and a target, while conceptual

fluency refers to internal fluency, as it refers to connections between associations and concepts in memory. The underlying mechanism that took place in the current research was conceptual fluency, as the editorial prime and sentence scrambling task were used to make particular concepts accessible. Perceptual fluency was not likely to occur, as we did not use the same words in the prime situation and in the following advertisement. We rather focused on making a particular concept accessible in memory to be used in a subsequent task – hence, we exploited degree of semantic similarity. We primed participants with certain words to make either a functional or experiential concept more accessible, but gave arguments consisting of functional claims instead of using the same identical words in the advertisement. We wanted to create a conceptual link between the functional aspects of the person's consumption pattern in the editorial prime or the functional words in the sentence scrambling task and the functional target. Thereby, there should be congruence between the prime and the advertisement if both consist of functional words/claims, while there should be incongruence if one is primed with experiential words so that the experiential concept is made salient, while later reading the advertisement with functional claims. More specifically, we proposed that conceptual fluency would be high in the congruent situation, but low in the incongruent situation, due to differences in semantic similarity.

Overall, the prior discussion suggests that fluency between the editorial prime/sentence scrambling task and the advertisement might enhance or reduce processing and elaboration of the arguments embedded in the advertisement. This will in turn have an effect on the resulting advertisement attitudes. In the next chapter, we will look further into this relationship and how it differs between priming methods, as we go deeper into theory and propose hypotheses.

3.0 Hypotheses

As already mentioned, the purpose of this paper was two-folded. We wanted to provide evidence for fluency theory, look deeper into the link between congruence, elaboration and attitudes, and see if different priming methods led to different priming effects. The following sub-chapters will go deeper into theory and propose hypotheses that aim to answer our research questions. We will look more closely at the relationship between congruence, argument quality and

advertisement attitude, then include cognitive responses, and also see if the effects differ when looking at the two priming methods independently.

3.1 Congruence, argument quality and advertisement attitude

Samuelsen (2004) reasoned that since congruence makes the ad content match salient memory concepts, it would be easier for participants in the congruent conditions to elaborate on the message content, as the primed memory content was both accessible and applicable to the arguments in the message. He therefore assumed that congruently primed participants would scrutinize the message more extensively, and that they would be more sensitive to argument quality than incongruently primed participants. Conversely, the primed memory content presented to participants in the incongruent conditions should not be as applicable to the arguments in the advertisement, as it primed an experiential concept. Thus, he expected these participants to elaborate less extensively, making them close to insensitive to argument quality. (Samuelsen 2004). However, the hypothesized interaction between prime congruence and argument strength did not reach significance. Yet, he found that the pattern of results was in the hypothesized direction, as congruently primed participants were more sensitive to weak arguments than incongruently primed participants, and as incongruently primed participants' responses were insensitive to argument quality. (Samuelsen 2004). Although Samuelsen's (2004) logic seems reasonable, we wanted to test another explanation, suggesting the opposite pattern of results.

Alter et al. (2007) found that fluency is used indirectly as a mechanism for choosing processing strategy. Specifically, they tested in what conditions System 2 processes, rather than System 1 processes, are activated. While the latter refers to effortless, quick, and intuitive (=low degree of elaboration) processes, System 2 processes are slower, more analytical and deliberate (=high degree of elaboration). Four experiments, manipulating fluency in different ways (receiving information in a degraded font, in difficult-to-read lettering, or while furrowing one's brow), suggested that experiences of a lack of fluency or increasing difficulty during reasoning serves as an alarm that activates System 2 processes. In such situations, the impact of heuristics and peripheral cues in persuasion, as well as defaults in judgments, are reduced, as this more analytic reasoning assesses and sometimes

corrects the output of more intuitive reasoning. (Alter et al. 2007). More specifically, if information is easily or fluently processed, System 1 processes guide judgment. More elaborate (System 2) processes, on the other hand, take over if information processing is difficult or lacks fluency, or if it becomes clear that one's intuitive response is likely to be wrong (Alter et al. 2007). In a persuasion logic, this would imply that sensitivity to the quality of the arguments presented in the advertisement would be higher if fluency is lacking, as should be the case if experiencing incongruence. Stronger arguments should therefore likely lead to positive attitudes and more persuasion, while weak arguments should lead to less fortunate attitudes and lower degree of persuasion.

This can be seen in relation to the situation in our research, where degree of fluency is manipulated through level of congruence between the prime and the advertisement. Following the above discussion, we propose that congruence between the prime and the advertisement will lead to a feeling that the information is easy and fluent to process, and thus less elaboration is needed to process the information and arguments in the advertisement. This might result in weak arguments going unnoticed. On the contrary, in a situation with incongruence between the prime and the advertisement, participants will get a feeling of less fluent and more difficult information processing, making them more alert, resulting in more elaborate processing of the information and arguments embedded in the advertisement. In this case, it is likely that weak arguments get noticed, resulting in less fortunate attitudes.

In accordance with fluency theory, we therefore believe that it is just as likely that incongruently primed participants elaborate more than congruently primed participants. Figure 1 shows that in the incongruent prime conditions, sensitivity towards argument quality increases due to increased elaboration compared to the congruent prime conditions. As the congruent priming conditions incorporates higher degree of conceptual fluency, participants in these conditions are more likely to experience a feeling of familiarity and will be less likely to elaborate extensively on the message embedded in the advertisement. This lack of elaboration will disguise the strength of the arguments, and smaller differences on advertisement attitudes will therefore be observed between high congruent strong argument conditions and high congruent weak argument conditions. So, while

participants in the congruent conditions should show insensitivity to the argument quality manipulation, resulting in close to equal advertisement attitudes, participants in the incongruent prime conditions will get more positive advertisement attitudes when strong arguments compared to weak arguments.

Figure 1 shows the expected interaction effect pattern:

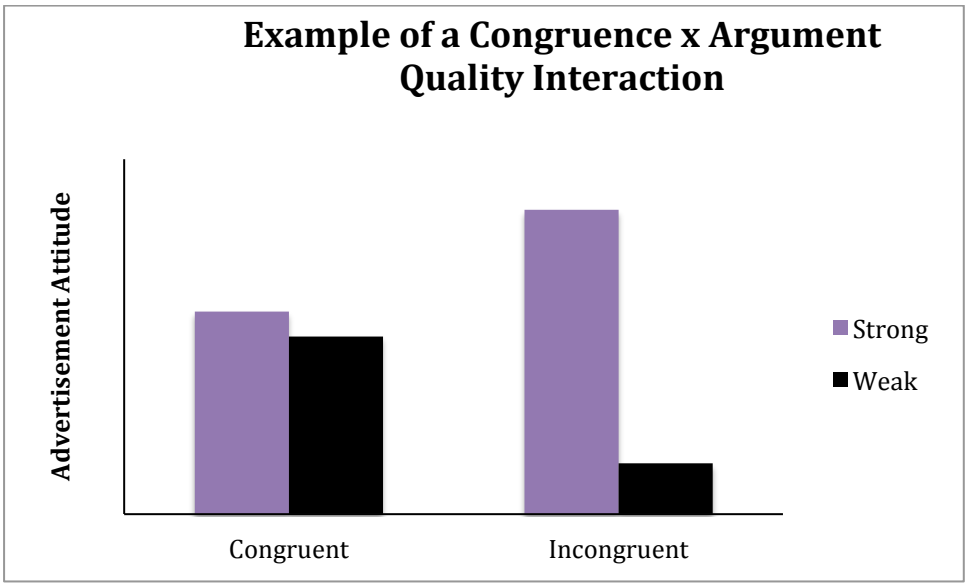

Figure 1: Example of a Congruence x Argument Quality Interaction

Based on the previous reasoning, the formally stated hypothesis is as follows:

H_1: There will be an interaction between congruence and argument quality, so advertisement attitude will be more positive in the incongruent strong argument quality conditions, than in the incongruent weak argument quality conditions. Smaller differences will be observed between high congruent strong argument quality conditions and high congruent weak argument quality conditions.

3.2 Congruence and cognitive responses to the advertisement

As an extension of hypothesis 1, it is interesting to find additional evidence that congruence between the prime and the advertisement affects elaboration. This could be found by looking at the cognitive responses, or thought listings, that participants completed in response to the advertisement. According to Petty and Cacioppo (1986), one can get a depiction of the elaborative process taking place by looking at the profile of the cognitive responses. In a situation with high

scrutiny, favorable cognitive responses should be the result of reading strong arguments, as opposed to weak arguments, and vice versa. The total number of cognitive responses might however be the same. However, when people do not elaborate extensively, they are more likely to be insensitive to argument quality manipulations, which will be reflected in that their thoughts are unaffected by the strength of the arguments. (Samuelsen 2004). The idea behind collecting cognitive responses is thus that the profile of thoughts can tell whether the message in the advertisement has been thoroughly processed or not. In accordance with the argumentation for the first hypothesis, we believe that incongruently primed participants will give more positive thoughts if exposed to strong arguments, and more negative thoughts if exposed to weak arguments. Congruently primed participants' thoughts will however not be influenced by argument quality to the same extent, as they are more likely to oversee the strength of the arguments. The following hypothesis is proposed:

H_2: There will be more positive than negative advertisement-related thoughts in response to strong arguments in the incongruent prime conditions, and more negative than positive advertisement-related thoughts in response to weak arguments in the incongruent prime conditions. Such differences will be minimal in the congruent prime conditions.

The third hypothesis states the influence of fluency (congruence) on the correlation between advertisement cognitions and advertisement attitudes. As is also mentioned by Samuelsen (2004), stronger correlations between the two indicates that the attitude mirrors greater message-relevant thinking (e.g. Petty and Cacioppo (1979); Chaiken (1980)). In accordance with the reasoning for the two first hypotheses, we believe that the incongruently primed participants will elaborate more than congruently primed participants. It is assumed that the incongruently primed participants' thoughts will be more influential on the advertisement attitude than the congruently primed participants' thoughts, as they elaborate more extensively. Hence, it is believed that there will be higher correlations between advertisement cognitions and advertisement attitudes in the incongruent priming conditions than in the congruent priming conditions. This leads us to the following hypothesis:

H_3: The correlation between advertisement attitude and the difference between positive and negative advertisement cognitions will be higher in the incongruent prime conditions, than the congruent prime conditions.

3.3 Priming method, congruence, argument quality & advertisement attitude

Recall that we mentioned two different ways to distribute a prime in chapter 2.2.3, namely sentence scrambling and contextual priming. We wanted to see if these two methods create the same elaborative and attitudinal consequences. It is reasonable to assume that sentence scrambling will give stronger effects than editorial priming, as participants instructed to write sentences are more task involved than those who merely have to read through an article. By participating more actively, it is likely that they process words more thoroughly. These words should therefore be more accessible and salient in memory for a subsequent task. Moreover, it is interesting to see whether the effects of the two priming methods could be explained by the same mechanism – conceptual fluency. In order to see if results differ between the priming methods, we propose the following hypothesis:

H_4: *There will be an interaction between the prime method and level of congruence, so the hypothesized effects in H_1 will be more evident for sentence scrambling participants, compared to editorial priming participants.*

3.4 Priming method and the correlation between cognitive responses and advertisement attitude

Consistent with hypothesis four, we are also interested in testing the different priming methods' influence on the correlation between advertisement cognitions and advertisement attitudes. Hypothesis five will reflect this influence. Consistent with the reasoning for hypothesis four, we believe that sentence scrambling will lead to higher correlations, as these participants are more task involved than those who merely have to read through an article. Petty and Cacioppo (1979) found that increasing involvement enhanced persuasion for strong messages while it reduced persuasion for weak ones. We therefore believe that the correlation will be higher

for sentence scrambling participants than for editorial participants, as they are more task involved. This reasoning results in the following hypothesis:

H_5: The correlation between advertisement attitude and the difference between positive and negative advertisement cognitions will be higher in sentence scrambling priming conditions, than in the editorial priming conditions.

3.5 Conceptual Model

Together, the previously presented hypotheses, when tested, should provide insights regarding RQ1 and RQ2. More specifically, they should give an answer to whether attitudes formed under different levels of congruence between the prime and the content of the advertisement arise from different levels of elaboration, and also if this potential effect is different across priming procedures. Figure 2 below briefly summarizes the main points of the theory presented in this paper.

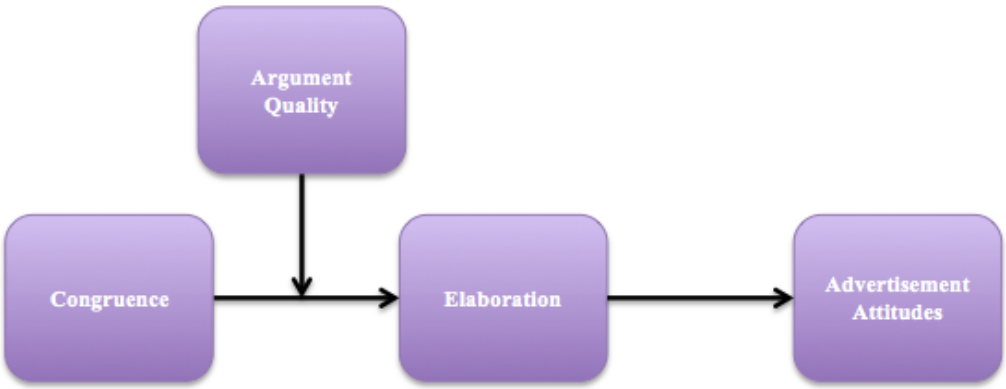

Figure 2: Conceptual model

We will now proceed with a description of the methodology used in this study.

4.0 Methodology

In this section, we will first explain the design of our study before we describe the experimental procedure used.

4.1 Overview of design

In order to test the hypotheses, three factors had to be manipulated: priming method, level of congruence (fluency), and argument quality. In its basic sense, the study design was really a 2 (priming method: editorial prime vs. sentence scrambling task) x 2 (congruence: functional vs. experiential) x 2 (argument quality: strong vs. weak) between subjects factorial. However, we found it more beneficial to combine two variables, priming method and congruence, into one variable when running the analyses, as it enabled us to get a more detailed picture. This way, we could study the effects of the combination of congruence, priming method, and argument quality in the same plot. Hence, the design used for this study was a 4 (editorial prime: functional/experiential vs. sentence scrambling: functional/experiential) x 2 (argument quality: strong vs. weak) between subjects factorial. Figure 3 below gives an overview of the study design, consisting of eight conditions.

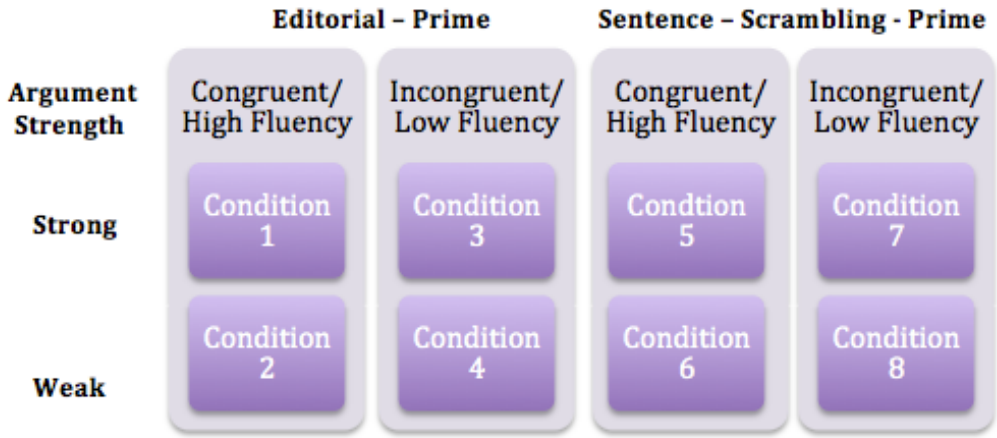

Figure 3: Study design

4.2 Participants and procedure

As the general rule says one should have at least 30 participants for each condition, our eight conditions necessitated approximately 240 participants. In order to recruit enough respondents, we used snowball sampling (see Easterby-Smith, Thorpe and Jackson (2008)) through Facebook. We started out inviting our Facebook friends, and asked them to pass the invitation on to their acquaintances – resulting in a total of 447 respondents taking part in the experiment. After cleaning the data (due to e.g. dropout and time spent), we ended up with a sample

of 231 respondents. Snowball sampling is a non-probability sampling design, and even though we are aware that one gets more representative and credible findings by using probability sampling, we found this design useable for our purpose, as it enabled us to get many respondents in a short period of time. The Facebook invitations lead the participants to a link escorting them to the web-based experiment, which was run in Qualtrics.

The participants were randomly assigned to one of the eight conditions. They were either primed by reading an editorial (4 conditions) or by solving a sentence scrambling task (4 conditions), that were either functional or experiential. Then, they were exposed to one of two versions of an advertisement for a fictional, "soon-to be-launched" shampoo-brand - NaBema. One version had arguments of strong quality, the other of weak quality. As it was important that the editorial/sentence scrambling task and the advertisement were perceived as ostensibly unrelated, we made up a cover story placed at the beginning of the experiment, saying that the data collection of two unrelated master studies were combined in order to save time and resources. This way, there was no reason why participants should see the link between these two manipulations.

After this, a new cover story was introduced to disguise the purpose of the prime. In the editorial-prime conditions, we used the same cover story and primes as Samuelsen (2004), however translated them into Norwegian and changed a few of the priming words. The participants were told that they were to assess the layout of editorials in an online context, and presented to one of two editorials representing the primes, either a functional or an experiential one, describing young consumers' consumption behavior. After they read the story, they answered some questions regarding the format, layout and readability of it. In the sentence scrambling condition, the participants were first exposed to a cover story saying that prior research has shown that there is a link between age and the way people construct sentences, and that we wanted to explore this further in our research. They were then randomly assigned to complete a sentence scrambling task designed to activate either a functional or experiential concept. In designing the task, we followed the procedure used by Chartrand and Bargh (1996), exposing each respondent with 15 sets of words. For each set, the participant was to form a grammatically correct four-word sentence from the five words presented in

scrambled order. Examples of the test items are: *"stor hytte verdi har penger"* (functional) and *"var som han hyggelig svært"* (experiential). In the functional condition, words related to functional benefits (e.g. verdi, kvalitet, nyttig, funksjonell) were embedded in 13 of the sets. In the experiential condition, words related to experiential benefits (e.g. hyggelig, interessant, tiltrekkende) were embedded in 13 of the sets. The remaining words in the two conditions were neutral with respect to both concepts. In addition, two neutral sets free from either functional or experiential words, e.g. *"appelsin kan pepper nyseanfall gi",* were included in each condition to make the theme less obvious. Table 1 portrays all the test items for the sentence-scrambling primes used in the study. To make the cover story seem realistic, participants were also asked to write their age when they had completed the task.

Table 1: Test items for sentence scrambling conditions

Congruent Prime Condition	**Incongruent Prime Condition**
stor hytte *verdi* har penger	var som han *hyggelig* svært
kvalitet har overgang stoffet fin	kjedelig var mannen *interessant* veldig
nyttig lærte mye fin hun	lengst kjærlighet *ekte* bil varer
stor er *funksjonell* lite bilen	best *variert* mat ski er
rettet *praktisk* var oppgaven kravstor	*tiltrekkende* han for kjører fort
var deres mellom arbeidsfordelingen *effektiv*	grønn komikere publikum *underholdende* drar
tenke studenter må vaske *økonomisk*	*moro* hennes bursdagsselskapet blå var
akkurat lite melken *holdbar* er	ute *behagelig* temperaturen stilig er
mellom meget avtalen *formålstjenlig* er	veldig som *sjarmerende* var hun
arbeidskraft er etterspurt fra *billig*	krimbøker best *spennende* er interessant
slitt hans *anvendelig* var antrekket	om møtet *fornøyelig* deres var
hans beslutningstakingen kul *rasjonell* er	oppgaver hadde *fascinerende* de temaet
bra flyge seg følte han	mindre l*ystbetont* var stemningen huske
Neutral Sets	
appelsin kan pepper nyseanfall gi	usunt potetgull salt er som
hadde er asfalt lagt ny	sement støpes muren av eple

Note: Words in italics are the critical priming stimuli. They are not italicized in the actual task.

After participants had been exposed to one of the prime manipulations, they were introduced to a new cover story, telling them to evaluate a brand (the fictional shampoo) and an advertising format. They were then randomly assigned to either the strong or weak argument quality version of the shampoo advertisement. The cover story and the argument manipulations were the same as those used by

Samuelsen (2004), except for being translated into Norwegian. We also did some changes to the layout of the advertisement and the looks and name of the product. We tried to come up with a brand name and a packaging different from shampoos on the market in order to avoid creating associations to other shampoo brands. Samuelsen himself mentioned that his packaging design was a limitation, as people associated it with the well-known shampoo brand Pantene Pro-V. After looking at the advertisement, participants were asked to give their attitude towards the brand and the advertisement, their purchase intention for the shampoo, and three questions meant to uncover their category involvement. These questions were the same as those used by Samuelsen (2004). Moreover, we included some manipulation checks. Participants in the editorial-priming conditions were asked to rate the degree to which the person featured in the editorial was concerned with predominantly pleasure or functionality of products. Participants in the sentence scrambling priming conditions, on the other hand, were asked to tell whether they noticed if any specific theme became apparent to them while making sentences, and in that case, what theme. All participants were also asked to rate the quality of the arguments presented in the advertisement. Finally, they completed a need for cognition scale, and revealed whether any of the answers given late in the session were connected to what they answered earlier. At the end, participants were debriefed of the true purpose of the experiment and thanked. The whole experiment was expected to take approximately 10-15 minutes to complete.

4.3 Manipulations of independent variables

For each of the two priming methods used, two manipulations were done: prime - target advertisement congruence and argument quality.

4.3.1 Congruence

Level of congruence between the prime and the advertisement was manipulated. This was done by either matching a functional prime with a functional advertisement (congruence=high fluency), or an experiential prime with a functional advertisement (incongruence=low fluency). More specifically, this manipulation was a result of the matching of the sentence scrambling task or the editorial story with the shampoo advertisement. We made use of the same

advertisement as Samuelsen (2004), besides a new layout, a new brand name and a different packaging. The arguments were the same, however in Norwegian. We also used a functional brand concept, as he did. Park, Jaworski and MacInnis (1986, 136) define a brand with a functional concept as "one designed to solve externally generated consumption needs." For such brands, functional performance is emphasized by marketers (Park, Jaworski and MacInnis 1986). The shampoo advertisement therefore included arguments stressing functional benefits of the shampoo. In order to manipulate fluency, the prime (editorial stories or sentence scrambling task) was either consistent with the advertisement in that it primed participants by prompting a functional concept, or inconsistent in that it induced an experiential concept. The stimuli used can be found in appendix 1. Being exposed to an experiential concept should induce sensory satisfaction or cognitive stimulation and the fantasy and experiential aspects associated with consumption, rather than functional benefits (Park, Jaworski and MacInnis 1986). Thus, a low degree of conceptual fluency should be the result if participants first were exposed to the experiential prime and subsequently read the functional advertisement. On the other hand, it should result in high degree of conceptual fluency if both the prime and the advertisement had a functional profile. Samuelsen (2004) pretested his prime stories to see if people perceived them to be experientially or functionally oriented, and found that they had the expected profile. Based on these results, we decided not to perform a pretest ourselves. Concerning the items for the sentence scrambling conditions, we also did not do a pretest, as we used many of the same words as Samuelsen (2004) listed in his editorial primes. These were however translated into Norwegian. As some of these words had the same meaning in Norwegian, we had to come up with synonyms to get the sufficient number of priming words. These were found using a synonyms dictionary.

4.3.2 Argument quality

In order to detect whether there is any difference in elaboration between participants exposed to a congruent vs. an incongruent prime-ad situation, we also manipulated argument quality, using the same arguments as Samuelsen (2004). Following Samuelsen's procedure (2004), two versions of the shampoo advertisement were presented, similar on all aspects (both emphasizing functional

benefits, same layout, picture and number of arguments) except argument quality. Participants were either exposed to an ad with six strong arguments (e.g. *"…optimal beskyttelse mot sol og forurensning, samtidig som den hindrer flass og håravfall", "…essensielle vitaminer for sunn hud og sunt hår"* and *"…tilgjengelig hos din frisør for å sikre at du får den rette typen for deg og ditt hår"*) or one with six weak arguments (e.g. *"…vil ikke skade hodebunnen om du ikke bruker den mer enn tre ganger i uken"* and *"…rengjør håret like godt som shampooen de bruker hjemme, så lenge de unngår regn og vind"*). A presentation of the two versions of the advertisement with the respective arguments can be found in appendix 1. The idea is that one can detect the degree of an individual's elaboration of the advertisement message by looking at his or her attitudes. A person who engages in extensive processing of the arguments is likely to uncover the true merits of them, and respond in a positive way if strong positive arguments or in a negative way if weak arguments. A person who does not elaborate on the content will however not notice the strength of the arguments, and argument quality will thus not be related to advertisement- and brand attitudes to the same extent. As Samuelsen's (2004) pretests of the quality of the arguments proved weak arguments to be perceived as weak, and strong arguments to be perceived as strong, with strong arguments being significantly stronger than weak arguments, we rely on his results and refrain from running these pretests ourselves.

4.4 Measurement of dependent variables

Just like in Samuelsen's first study (2004), participants answered a number of questions pertaining to their attitudes, thoughts and purchase likelihood. After being exposed to the prime and the advertisement, participants completed questions measuring their attitudinal responses to the brand and the advertisement, listed thoughts that came to mind when exposed to the advertisement, and indicated their purchase intentions for the shampoo. Finally, they answered some items measuring their need for cognition and category involvement. We will now give a more detailed description of the questions asked.

4.4.1 Attitudes towards the brand and the advertisement and purchase intentions for the shampoo

Participants were asked the same questions as Samuelsen (2004) asked in his study, however translated into Norwegian, and with scales ranging from 0 to 100. The scales were changed in order to get more variance in responses. After seeing the advertisement, participants answered three questions measuring brand attitude with the following instructions and scale anchors: *"Vennligst sett markøren på det punktet som best beskriver din vurdering av shampoo-merket: dårlig - bra, negativt - positivt, ugunstig - gunstig"* (Haugtvedt and Petty (1992); Yi (1990b)). Qualtrics made it possible to use slide-bars to obtain scores, a tool resulting in more accurate and fine-grained responses. One example is shown in figure 4 below:

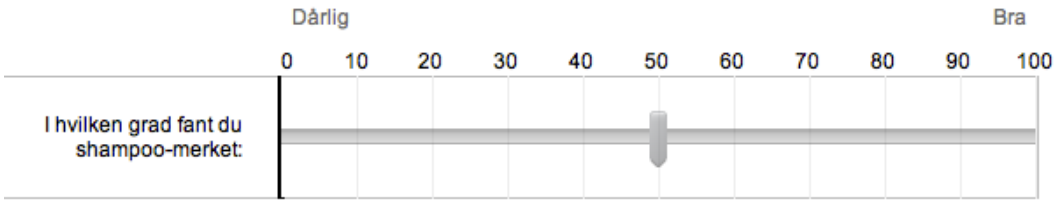

Figure 4: Example of a slide-bar measuring brand attitude

Then, three questions measuring attitude towards the advertisement followed: *"Vennligst sett markøren på det punktet som best beskriver din vurdering av reklamen: dårlig - bra, mislikt - likt, ugunstig - gunstig"* (Aylesworth and MacKenzie (1998); MacKenzie and Spreng (1992)). They then indicated their purchase intentions for the shampoo, by answering a single question with the following instruction and scale anchors: *"Vennligst sett markøren på det punktet som best beskriver sannsynligheten for at du vil kjøpe NaBema når merket blir tilgjengelig på markedet: svært lite sannsynlig – svært sannsynlig"* (Samuelsen 2004).

4.4.2 Thought listings

In order to detect differences in elaboration, Samuelsen (2004) checked cognitive responses or thoughts listed, in addition to the argument quality manipulation. According to Petty and Cacioppo (1986) such a thought-listing technique is an important tool in tracking cognitive activity. Participants were therefore asked to complete a thought listings question, as we wanted to see whether participants

belonging to different experimental conditions differed in their number of positive and negative thoughts towards the brand and advertisement. The task instruction told participants to write down any thoughts that came to mind when being exposed to the shampoo-advertisement. Both researchers functioned as judges in that we independently from one another grouped the responses into one of the following groups: positive brand responses, negative brand responses, neutral brand responses, positive advertisement responses, negative advertisement responses, neutral advertisement responses, and neutral responses (e.g. of the nature: "The weather is nice today"). After responses of each participant were grouped, two indexes were computed – one for brand responses and one for advertisement responses, using the following formulas: (positive brand responses + neutral brand responses) – negative brand responses, and (positive advertisement responses + neutral advertisement responses) – negative advertisement responses. In order to see whether we agreed on the grouping task, a number of correlation-tests were run. Analysis showed that all codings but one was either medium or highly positively correlated with r values above 0.3 (Cohen 1988): $r_{\text{positive brand judge A, judge B}} = 0.168$, p=.013), $r_{\text{negative brand judge A, judge B}} = 0.751$, p=.000), : $r_{\text{positive ad. judge A, judge B}} = 0.779$, p=.000), $r_{\text{negative ad. judge A, judge B}} = 0.876$, p=.000, $r_{\text{index brand judge A, judge B}} = 0.433$, p=.000 and $r_{\text{index ad. judge A, judge B}} = 0.831$, p=.000. This tells us that, overall, we agreed on how thoughts should be grouped. We therefore decided to use the results of one judge for the subsequent analyses.

4.4.3 Ancillary measures

Finally, we asked participants to answer some ancillary measures: a Norwegian translation of Cacioppo, Petty and Kao's (1984) need for cognition scale, and three questions measuring product category involvement (Laurent and Kapferer (1985); Mittal and Lee (1988); Samuelsen (2004)). A complete list of measured items is given in appendix 2. Although Samuelsen included these, and other ancillary measures in his study, he did not use them in his analysis. As already mentioned, these measures were included as covariates in the current study, as they are likely to have an effect on the degree of elaboration and the resulting attitudes.

5.0 Results and Discussion

In this chapter, results of the hypotheses testing will be presented and discussed. We first look at the manipulation checks, before turning our attention towards each hypothesis.

5.1. Manipulation checks

In order to see if our manipulations were successful, participants were instructed to answer some questions exploring the nature of the argument strength and the primes. It was important that these questions came late in the experiment, to avoid biased responses concerning attitudinal responses and thought listings.

5.1.1 Argument quality manipulation

To check the argument quality manipulation, respondents were asked to rate the quality of the arguments presented in the fictional advertisements. These responses were used in a 2 (prime-ad congruence) x 2 (argument quality) univariate analysis of variance (ANOVA) on argument strength, with total need for cognition and total involvement as covariates. We expected the results to show a significant main effect of argument quality only, meaning that the strong version of the advertisement should be perceived as stronger irrespective of priming condition. The results were as expected, $F(1, 218) = 7.605$, $p = .006$. Participants exposed to strong arguments rated arguments significantly higher ($\underline{M}_{\text{strong arguments}} = 49.06$), than participants exposed to weak arguments ($\underline{M}_{\text{weak arguments}} = 40.22$). Thus, the argument quality manipulation was successful.

5.1.2 Editorial priming manipulation

To assess the editorial priming manipulation, participants answered two questions relating to whether the featured girl in the priming story was primarily concerned with 1) functionality and quality, or 2) fun and stuff that pleases her, when she buys products. Two separate 2 (prime–ad congruence) x 2 (argument quality) ANOVAs were run – one for each question, with total need for cognition and total involvement as covariates. We expected that participants exposed to the functional

editorial prime (congruent with the advertisement) would agree more with the first question than the latter, while the opposite would be the case for participants exposed to the experiential editorial prime (incongruent with the advertisement).

Relating to the first question, a total of 7 cases where excluded before the ANOVA was run, as they where identified as outliers in a boxplot. Contrary to our expectations, we did not get a significant main effect of the congruence manipulation on the first question, $F(1,103) = 0.472$, $p = .494$, *n.s*. This means that congruently primed participants did not agree significantly more than incongruently primed participants to the statement that the editorial primarily concerned functionality and quality. However, it does not imply the opposite either. Therefore, this does not necessarily have a big impact on our study. Considering the second question, a boxplot identified four cases as outliers, which where excluded before we ran the main analysis. The ANOVA results gave the expected significant main effect of the congruence manipulation on the second question, $F(1,106) = 8.037$, $p = .005$). This shows that participants in the incongruent prime condition agreed more with the statement that the editorial concerned primarily fun and pleasing qualities ($\underline{M}_{incongruent} = 5.14$), than those who received the congruent prime ($\underline{M}_{congruent} = 4.34$). We can therefore conclude that this manipulation worked as intended.

5.1.3 Sentence scrambling priming manipulation

Concerning the sentence scrambling priming condition, we did not find it relevant to perform a manipulation check. It was redundant as the process happens unconsciously. True, we did include a question asking participants to answer whether they noticed if any specific theme occurred as a red thread during the sentence scrambling task, and if so what theme. However, only 18 of the respondents answered “yes”, and only five of them actually listed a few of the words they had been primed with. Overall, this shows us that the process is in fact unconscious.

5.2 Test of H1

The first hypothesis predicted an interaction between congruence and argument quality on advertisement attitudes. Basically, the assumption was that sensitivity to argument quality in the incongruent prime conditions would be higher due to greater elaboration, compared to the congruent prime conditions. Specifically, hypothesis 1 predicted that advertisement attitudes would be more positive in incongruent prime strong argument conditions than in the incongruent prime weak argument conditions, and that smaller differences should be observed between congruent prime strong argument conditions and congruent prime weak argument conditions. If supported, it seems like incongruence facilitates elaboration of an advertisement.

In order to compute a total advertisement attitude score, a factor analysis with maximum likelihood rotation and varimax extraction for the three advertisement attitude items was run. This yielded a one-factor solution accounting for 89.6% of the variance. Hence, the three items were collapsed and averaged into a total advertisement attitude index. In addition, a factor analysis with maximum likelihood rotation and varimax extraction for the three involvement measures yielded a one-factor solution accounting for 80.84% of the variance. They were thus also collapsed into an average total involvement index.

A boxplot identified one case as an outlier, and this case was therefore removed from the dataset before the main analysis was run. A 4 (prime level[1]) x 2 (argument quality) ANOVA on total advertisement attitude, with total need for cognition and total involvement as covariates, gave the following results (see table 2 and figure 5):

[1] Prime level – a variable combining level of congruence and prime method.

Table 2: ANOVA results - Effects of Prime Level and Argument Quality – Advertisement Attitude Scores

	Strong Argument		Weak Argument		
	Mean	**SD (n)**	**Mean**	**SD (n)**	**M**
Prime Level					
Editorial Congruent	52.72	21.91 (23)	53.65	23.38 (22)	53.18
Editorial Incongruent	45.30	21.89 (19)	42.11	22.21 (27)	43.43
Sentence Scrambling Congruent	48.60	17.82 (25)	32.45	20.51 (22)	41.04
Sentence Scrambling Incongruent	43.94	19.94 (26)	39.33	20.64 (20)	41.93
M	47.64		41.96		

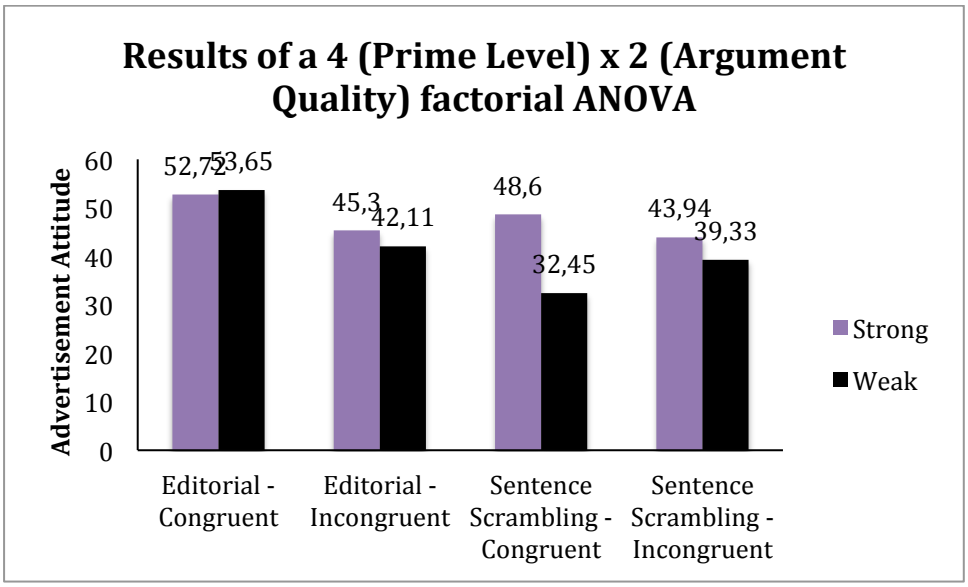

Figure 5: Prime Level x Argument Quality Interaction on Advertisement Attitude

The results gave a significant main effect of argument quality, $F(1, 174) = 4.566$, $p = .034$, showing that participants exposed to strong arguments rated the advertisement more favorably ($\underline{M}_{\text{strong arguments}} = 47.64$) than those exposed to weak arguments ($\underline{M}_{\text{weak arguments}} = 41.96$). There is also a significant main effect of prime level $F(3, 174) = 3.752$, $p = .012$, indicating that advertisement attitudes varies with the different combinations of prime and congruence ($\underline{M}_{\text{congruent editorial}} = 53.18$, $\underline{M}_{\text{incongruent editorial}} = 43.43$, $\underline{M}_{\text{congruent sentence scrambling}} = 41.04$, $\underline{M}_{\text{incongruent sentence scrambling}} = 41.93$). Computing the average between total means in congruent prime-ad conditions, and also for incongruent prime-ad conditions, participants exposed to congruent prime-ad situations rated the advertisement more favorably ($\underline{M}_{\text{congruent}} = 47.11$) than those exposed to incongruent prime-ad situations ($\underline{M}_{\text{incongruent}} = 42.68$). This is in accordance with fluency theory, as people experiencing fluency evaluate

an object more positively than those who do not experience it, possibly due to the feeling of familiarity.

There is no significant interaction effect between prime level and argument quality, $F(3, 174) = 1.479$, $p = .222$, telling us that the different combinations of prime and congruence do not show significant differences in argument quality sensitivity. Hence, we cannot say that advertisement attitudes will be more positive in incongruent prime strong argument conditions than in the incongruent prime weak argument conditions, nor that there are smaller differences between congruent prime weak argument conditions and congruent prime strong argument conditions. Actually, looking at the differences in attitude scores across argument quality manipulations for each prime level (see table 2 and figure 5), one rather gets an indication that the congruent sentence scrambling condition is most sensitive to the argument quality manipulation[2]. The means in figure 5 also indicates that the priming method interacts with congruence and affects advertisement attitudes. We will take a deeper look at this in chapter 5.5. The covariates, total need for cognition, $F(1,174) = 2.643$, $p = .106$, *n.s.,* and total involvement, $F(1,174) = 1.541$, $p = .216$, *n.s.,* were not significant, indicating that total need for cognition and total involvement did not have a significant effect on advertisement attitudes.

As a conclusion, the hypothesized interaction between congruence and argument quality did not reach significance for advertisement attitude. Thus, hypothesis 1 is not supported. However, the means in figure 5 shows different patterns depending on the level of congruence between the prime and the ad, and whether participants were primed with a sentence scrambling task or an editorial story. This indicates that we might find interaction effects if we look at the two priming methods separately, which is the focus of the fourth hypothesis. In the next section, however, we want to see what results occur when cognitive responses are introduced as the dependent variable.

[2] $\underline{M}_{\text{Difference in ad att. scores, strong-weak argument condition}}$: Editorial congruent (-0.93), editorial incongruent (3.19), sentence scrambling congruent (16.15) and sentence scrambling incongruent (4.61).

5.3 Test of H2

The second hypothesis predicted that incongruence between the prime and the advertisement would lead to greater elaboration than congruence. More specifically, it suggests that there will be more positive than negative advertisement related thoughts in response to strong arguments in the incongruent prime conditions, and more negative than positive advertisement related thoughts in response to weak arguments in the incongruent conditions. For congruent prime conditions, these differences are however predicted to be minimal. In order to test this, two separate 2 (prime-ad congruence) x 2 (argument quality) ANOVAs on the advertisement response index were run for each priming method, with total need for cognition and total involvement as covariates (see table 3 and 4 for results). For the editorial prime, no significant main effects of argument quality, $F(1, 87) = .276$, $p = .601$, or prime-ad congruence, $F(1, 87) = .644$, $p = .425$, nor a significant interaction effect, $F(1, 87) = .127$, $p = .722$, were found on the advertisement response index. This tells us that they do not have more positive ad related thoughts if strong arguments, compared to weak arguments, that the level of congruence do not affect ad related thoughts, and that argument sensitivity does not differ depending on the level of congruence. In addition, the covariates, total need for cognition and total involvement, were not significant, $F(1, 87) = 3.294$, $p = .073$, *n.s.,* and $F(1,87) = .058$, $p = .811$, *n.s.,* respectively, indicating that total need for cognition and total involvement did not have a significant effect on advertisement attitudes.

Table 3: Results of a 2 (Prime-Ad Congruence) x 2 (Argument Quality) ANOVA on the Advertisement Response Index - Editorial prime

	Strong Arguments		**Weak Arguments**		
	Mean	**SD (n)**	**Mean**	**SD (n)**	**M**
Congruence					
Functional Editorial	-.304	1.92 (23)	-.591	1.68 (22)	-.444
Experiential Editorial	-.714	1.98 (21)	-.667	1.39 (27)	-.688
M	-.500		-.633		

For sentence scrambling however, we found a significant effect of total need for cognition, as expected, $F(1, 91) = 14.599$, $p = .000$, meaning that this variable has an effect on cognitive responses. We also found that the main effect of prime-ad congruence is approaching significance, $F(1, 91) = 3.654$, $p = .059$. This tells us

that participants in the congruent conditions had less negative cognitive responses ($\underline{M}_{congruent}$= -.74) than participants in the incongruent conditions ($\underline{M}_{incongruent}$= -1.19), possibly due to fluency and a feeling of familiarity, making them more positive towards the advertisement. In addition, the covariate total involvement, was not significant, F(1,91) = .300, *p* =.585, *n.s.,* indicating that total involvement did not have a significant effect on the ad response index.

Table 4: Results of a 2 (Prime-Ad Congruence) x 2 (Argument Quality) ANOVA on the Advertisement Response Index - Sentence Scrambling Prime

	Strong Arguments		**Weak Arguments**		
	Mean	**SD (n)**	**Mean**	**SD (n)**	**M**
Congruence					
Functional Sentence Scrambling	-.741	1.16 (27)	-.739	1.63 (23)	-.740
Experiential Sentence Scrambling	-.962	1.48 (26)	-1.476	2.09 (21)	-1.191
M	-.849		-1.090		

Overall, these results show that argument strength do not have a main effect on thoughts, nor interacts with congruence for either priming method. Thus H2 is not supported. This is however not critical, as one could question whether one should find evidence of thoughts at all when participants are primed. The whole concept of priming is based on unconsciousness and that one should respond to a stimulus without thinking. The results do however indicate that for sentence scrambling participants, congruence result in more positive thoughts towards the advertisement than incongruence. As congruence is associated with higher conceptual fluency, this is likely to be evidence that fluency leads to more positive evaluations, in accordance with the findings of e.g. Berger and Fitzsimons (2008).

5.4 Test of H3

Specifically, the third hypothesis predicted higher correlations between the advertisement cognitions index and advertisement attitude in the incongruent conditions, than in the congruent prime conditions. Basically, the assumption was that participants in the incongruent conditions would be more sensitive to argument quality, due to more extensive elaboration, and that this would be reflected in more positive or negative thoughts, influencing advertisement attitudes in the same direction.

In order to test this, separate partial correlations between the advertisement cognition index and advertisement attitudes in the congruent and incongruent conditions were run, controlling for the covariates total need for cognition and total involvement. The analysis showed that the correlation in the congruent conditions was r = .562, p = .000 (N = 92), and for the incongruent conditions, r = .381, p = .000 (N = 91). These correlations are significant, however, to see if these correlations had significant differences in strength, the Fisher z-test was run. The result indicated that these differences were approaching significance (z = 1.56, p = .059). This shows that the relationship between cognitive responses and advertisement attitudes is stronger for participants in the congruent conditions, rejecting hypothesis 3. However, this indicates that participants in congruent conditions elaborate more thoroughly than those in the incongruent conditions.

5.5 Test of H4

Hypothesis four predicted an interaction between the prime method and level of congruence, so that the hypothesized effects in H_1 would be more evident for sentence scrambling participants, compared to editorial priming participants. In order to test this, we ran two separate 2 (prime-ad congruence) x 2 (argument quality) ANOVAs on total advertisement attitude – one for editorial priming and one for sentence scrambling, with total need for cognition and total involvement as covariates. Here, some very interesting results appeared (see table 5 and 6, figure 6 and 7):

Table 5: Results of a 2 (Prime-Ad Congruence) x 2 (Argument Quality) ANOVA on Advertisement Attitude – Editorial prime

	Strong Arguments		**Weak Arguments**		
	Mean	**SD (n)**	**Mean**	**SD (n)**	**M**
Congruence					
Functional Editorial	52.72	21.91 (23)	53.65	23.38 (22)	53.18
Experiential Editorial	45.30	21.89 (19)	42.11	22.21 (27)	43.43
M	49.37			47.29	

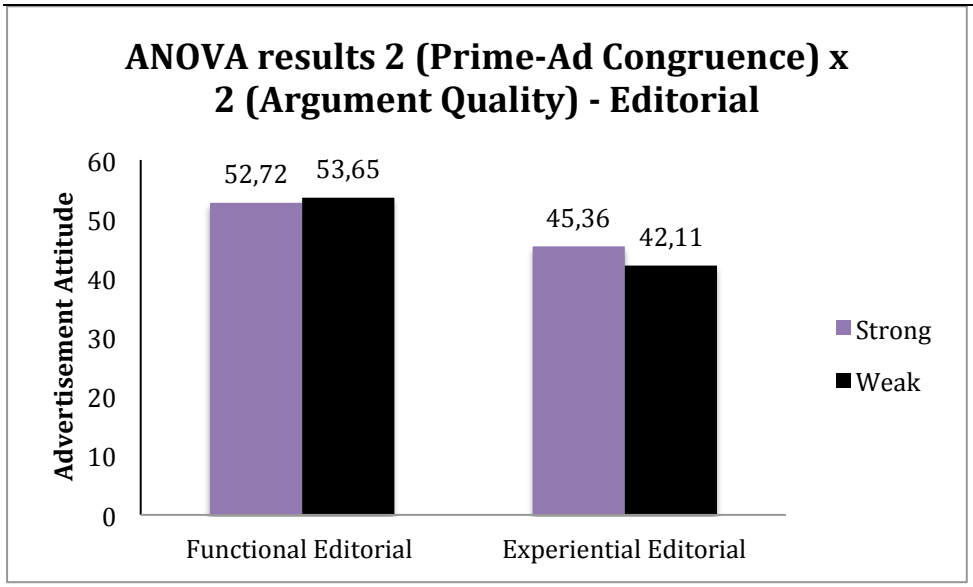

Figure 6: Results of a 2 (Prime-Ad Congruence) x 2 (Argument Quality) ANOVA on Advertisement Attitude – Editorial Prime

Table 6: Results of a 2 (Prime-Ad Congruence) x 2 (Argument Quality) ANOVA on Advertisement Attitude – Sentence Scrambling Task

	Strong Arguments		**Weak Arguments**		
	Mean	**SD (n)**	**Mean**	**SD (n)**	**M**
Congruence					
Functional Sentence Scrambling	48.60	17.82 (25)	32.45	20.51 (22)	41.04
Experiential Sentence Scrambling	43.94	19.94 (26)	39.33	20.64 (20)	41.93
M	46.22		35.73		

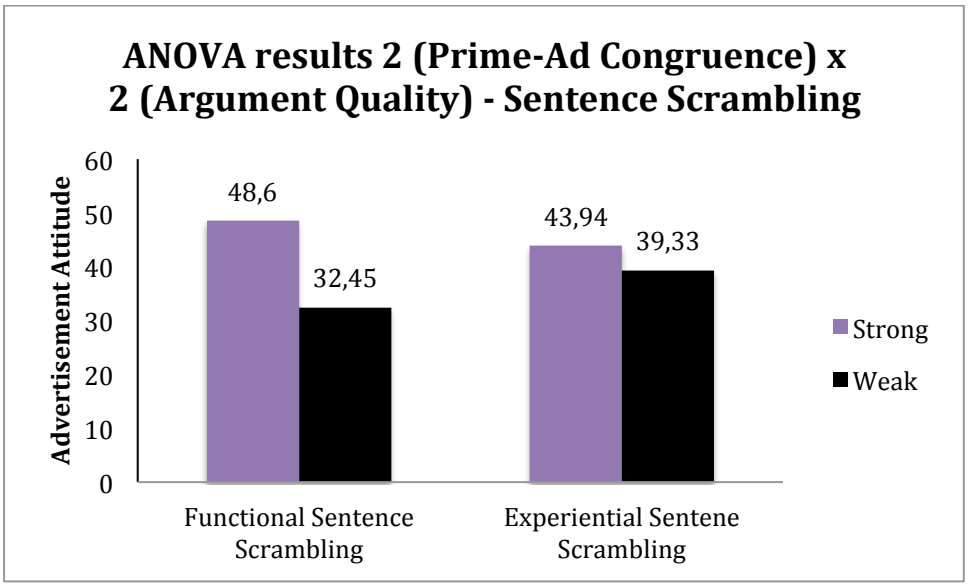

Figure 7: Results of a 2 (Prime-Ad Congruence) x 2 (Argument Quality) ANOVA on Advertisement Attitude – Sentence Scrambling Task

When it comes to editorial priming, there was only a main effect of prime-ad congruence, F(1, 85) =4.251, *p* =.042, and no longer a significant main effect of argument quality, F(1, 85) =.257, *p* =.614, *n.s*. This means that editorial participants exposed to congruent conditions were more favorable to the advertisement ($\underline{M}_{congruent}$ = 53.18) than participants in the incongruent conditions ($\underline{M}_{incongruent}$ = 43.43). However, particularly interesting is that participants exposed to editorial primes actually were insensitive to argument quality manipulations. This suggests that editorial prime participants experienced fluency effects, as they let argument strength go unnoticed. It is interesting and unexpected that this effect was found for both levels of congruence. We expected only congruently primed participants to experience fluency. In addition, the covariates, total need for cognition and total involvement, were not significant, F(1,85) = .682, *p* =.411, *n.s.,* and F(1,85) = .674, *p* = .414, *n.s.,* respectively, indicating that total need for cognition and total involvement did not have a significant effect on advertisement attitudes.

For the sentence scrambling conditions, however, the results showed that there was a significant main effect of argument quality, F(1, 87) = 7.165, *p* =.009. Participants reading strong arguments rated the advertisement higher ($\underline{M}_{strong\ arguments}$ = 46.22) than those reading weak arguments ($\underline{M}_{weak\ arguments}$ = 35.73). In other words, participants exposed to a sentence scrambling task were sensitive to argument quality manipulations. That participants exposed to the different priming methods showed different sensitivity to argument quality, gives partial support for H4. It is in accordance with our reasoning that the nature of the task given to sentence scrambling participants demands higher task involvement, making them process the stimuli more thoroughly than editorial participants. This again makes them more sensitive to the feeling of fluency/lack of fluency, leading to more or less elaboration and sensitivity towards argument quality. Although the interaction effect between argument quality and level of congruence was not significant, F(1, 87) = 2.886, *p* = .093, it approached significance, at least compared to the results for the editorial priming conditions, F(1, 85) = 0.187, *p* =.666. In addition, the covariates, total need for cognition, F(1,87) = 2.400, *p* =.125, *n.s.,* and total involvement, F(1,87) = .849, *p* = .359, *n.s.,* were not significant, indicating that total need for cognition and total involvement did not have a significant effect on advertisement attitudes.

The diagram in figure 7 shows that there seems to be larger argument quality sensitivity in the congruent sentence scrambling conditions compared to the incongruent sentence scrambling conditions. In order to check the simple main effects of argument quality at different levels of congruence within each prime method, we ran a syntax file in SPSS in combination with a 4 (prime level) x 2 (argument quality) ANOVA on total advertisement attitude, with total need for cognition and total involvement as covariates. The results showed only significant differences in advertisement attitudes as a result of argument quality within functional (congruent) sentence scrambling, ($\underline{M}_{\text{strong arguments}} = 48.6$ and $\underline{M}_{\text{weak arguments}} = 32.45$, $p = .005$), telling us that for sentence scrambling, there is in fact larger argument quality sensitivity in the congruent conditions. This is contrary to our expectations, and more in line with the reasoning by Samuelsen (2004): for congruently primed participants, it is easier to elaborate as primed memory content is both more accessible and applicable when performing the subsequent evaluation task, resulting in more thorough processing.

It is also interesting to see whether there are differences between congruent or incongruent conditions across priming methods. Two separate 2 (prime method) x 2 (argument quality) ANOVAs on advertisement attitude were run for each congruence level, with total need for cognition and total involvement as covariates. This gave the following results (see table 7, figures 8 and 9):

Table 7: Results of two 2 (Prime Method) x 2 (Argument Quality) ANOVAs on Advertisement Attitude

	Strong Arguments		**Weak Argument**		
	Mean	**SD (n)**	**Mean**	**SD (n)**	**M**
Congruent					
Editorial	52.72	21.91 (23)	53.65	23.38 (22)	53.18
Sentence Scrambling	48.60	17.82 (25)	32.45	20.51 (22)	41.04
M	50.58		43.05		
Incongruent					
Editorial	45.30	21.89 (19)	42.11	22.21 (27)	43.43
Sentence Scrambling	43.94	19.94 (26)	39.33	20.64 (20)	41.93
M	44.51		40.93		

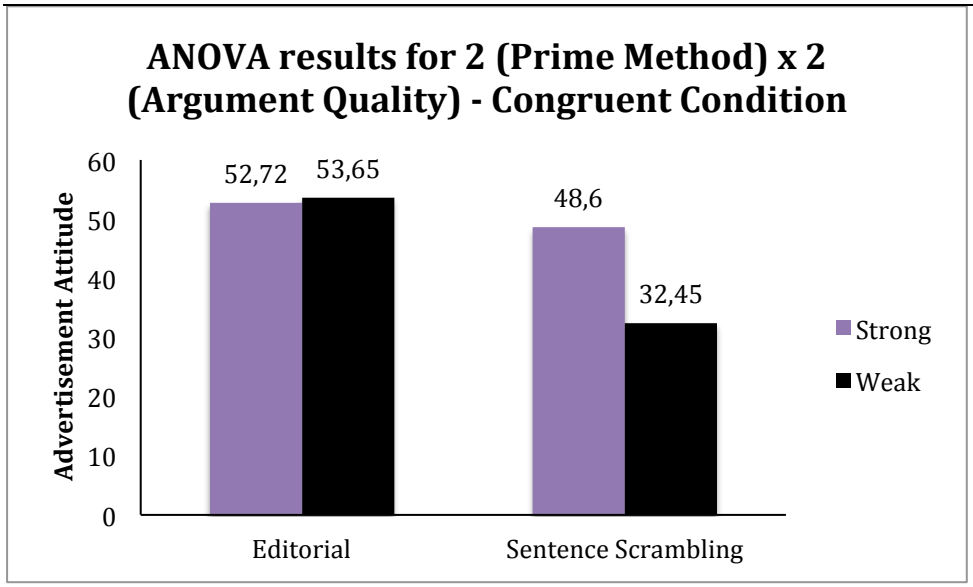

Figure 8: Results of a 2 (Prime Method) x 2 (Argument Quality) on Advertisement Attitude - Congruent Condition

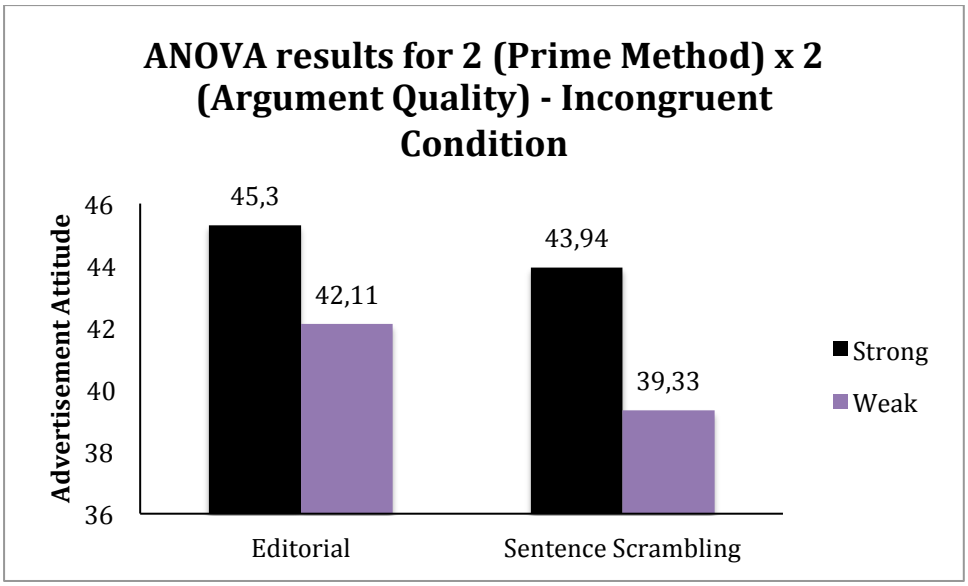

Figure 9: Results of a 2 (Prime Method) x 2 (Argument Quality) on Advertisement Attitude - Incongruent Condition

For the congruent conditions, the results showed significant main effects of both argument quality, $F(1, 86) = 4.073$, $p = .047$, and prime method, $F(1, 86) = 8.452$, $p = .005$. This tells us that participants reading strong arguments rated the advertisement higher ($\underline{M}_{\text{strong arguments}} = 50.58$) than those reading weak arguments ($\underline{M}_{\text{weak arguments}} = 43.05$), and that there are higher advertisement attitudes in editorial priming ($\underline{M}_{\text{editorial}} = 53.18$) compared to sentence scrambling priming ($\underline{M}_{\text{sentence scrambling}} = 41.04$). The interaction effect of prime method and argument quality, $F(1, 86) = 3.625$, $p = .060$, was also close to approaching significance, indicating that sentence scrambling participants had higher sensitivity to argument

quality manipulations than editorial participants. Whereas editorial participants' advertisement attitude was close to indifferent to the argument quality manipulation ($\underline{M}_{strong}$ = 52.72 and $\underline{M}_{weak}$ = 53.65), further supporting that these participants are insensitive to argument quality manipulations, sentence scrambling participants exposed to strong arguments seemed to have higher advertisement attitudes ($\underline{M}_{strong}$ = 48.60) than those exposed to weak arguments ($\underline{M}_{weak}$ = 32.45). Thus, as found previously, the sentence scrambling priming method makes a much stronger effect than the editorial priming method on argument quality sensitivity. In addition, the covariates, total need for cognition and total involvement, were not significant, F(1,86) = .845, p =.361, *n.s.,* and F(1,86) = 1.098, p = .298, *n.s.,* respectively*,* indicating that total need for cognition and total involvement did not have a significant effect on advertisement attitudes.

The analysis for the incongruent conditions, however, showed no significant main effects of argument quality, F(1, 86) =.975, p = .326, n.s, and prime method, F(1, 86) = .402, p =.528, *n.s.,* nor a significant interaction effect, F(1, 86) = .007, p = .931*, n.s*. Thus, for incongruent conditions, there were no significant main effects of either argument quality or priming method on total advertisement attitude, and the priming method did not moderate argument quality sensitivity. In addition, the covariates, total need for cognition and total involvement, were not significant, F(1,86) = 1.929, p =.168, *n.s.,* and F(1,86) = .438, p = .510, *n.s.,* respectively*,* indicating that total need for cognition and total involvement did not have a significant effect on advertisement attitudes.

Overall, these results further decline H_1 and gives only partial support for H_4. We expected to find that participants in the incongruent conditions would be more sensitive to argument quality manipulations, as the lack of fluency would make them more alert and hence aware of the quality of the arguments in the advertisement. However, as the results show, participants primed with editorial stories were not sensitive to argument quality manipulations at all – irrespective of the level of congruence between the story and the advertisement. On the other hand, participants exposed to the congruent sentence scrambling conditions were more sensitive to argument quality. While this supports our reasoning that priming method interacts with congruence, the pattern does not confirm to H_1. Contrary to

our belief, the results gives partial support for Samuelsen's (2004) finding as congruent participants are more sensitive to argument quality manipulations. However, this is also where the support ends; this finding was only evident in the sentence scrambling conditions and not in the editorial conditions.

5.6 Test of H5

The fifth hypothesis predicted higher correlations between the advertisement cognitions index and advertisement attitude in the sentence scrambling conditions compared to editorial conditions. Basically, the increased task involvement for sentence scrambling participants compared to editorial participants should make them more aware of argument quality, which should be reflected in positive or negative thoughts and a stronger relationship between cognitive responses and advertisement attitudes.

In order to test this, separate partial correlations between the advertisement cognition index and advertisement attitudes in the editorial conditions and sentence scrambling conditions were run, controlling for the covariates total need for cognition and total involvement. The analysis showed that the correlation in congruent editorial conditions and congruent sentence scrambling conditions were r = .594, p = .000 (N = 42), and r = .513, p = .000 (N = 47), respectively. Analysis for incongruent conditions showed correlations of r = .440, p = .001 (N = 45) in editorial conditions and r = .308, p = .021 (N = 45) for the sentence scrambling conditions. Each one of these correlations was significant. However, to see if these correlations had significant differences in strength, the Fisher z-test was run. The result indicated that these differences were not significant for either the congruent priming conditions (z = 0.54, p = .295) or the incongruent priming conditions (z = 0.69, p = .245). This means that the correlation between the advertisement cognitions index and advertisement attitudes was not significantly stronger in sentence scrambling than in editorial priming. Therefore, we cannot say that hypothesis 5 is supported. This finding is however not totally unexpected. As mentioned previously, priming itself could make one question whether any cognitive processes should occur at all, as it happens unconsciously.

The five hypotheses and the level of empirical support are summarized in table 8 below.

Table 8: Summary of hypotheses and results

#	Prediction	Conclusion
H1	*H_1: There will be an interaction between congruence and argument quality, so advertisement attitude will be more positive in the incongruent strong argument quality conditions, than in the incongruent weak argument quality conditions. Smaller differences will be observed between high congruent strong argument quality conditions and high congruent weak argument quality conditions.*	**Not supported** - However, the means indicated that we might find interaction effects if we looked at the two priming methods separately.
H2	*There will be more positive than negative advertisement-related thoughts in response to strong arguments in the incongruent prime conditions, and more negative than positive advertisement-related thoughts in response to weak arguments in the incongruent prime conditions. Such differences will be minimal in the congruent prime conditions.*	**Not Supported** - Not critical, as one could question whether one should find evidence of thoughts at all when participants are primed. - Results indicate that for sentence scrambling participants, congruence results in more positive thoughts towards the advertisement than incongruence. This could be evidence of fluency.
H3	*The correlation between advertisement attitude and the difference between positive and negative advertisement cognitions will be higher in the incongruent prime conditions, than the congruent prime conditions.*	**Not Supported** - However, results approached significance, indicating that the relationship between cognitive responses and advertisement attitudes is stronger for participants in the congruent conditions. This suggests that there is higher degree of elaboration in congruent conditions.
H4	*There will be an interaction between the prime method and level of congruence, so the hypothesized effects in H_1 will be more*	**Partially Supported** - Editorial priming participants are insensitive to argument quality

	evident for sentence scrambling participants, compared to editorial priming participants.	both in congruent and incongruent conditions. Evidence of fluency? - Participants in congruent sentence scrambling are sensitive to argument quality. Fluency theory is discarded for sentence scrambling.
H5	*The correlation between advertisement attitude and the difference between positive and negative advertisement cognitions will be higher in sentence scrambling priming conditions, than in the editorial priming conditions.*	**Not Supported** - However, not critical or unexpected, as priming itself could make one question whether any cognitive process should occur at all, as it is an unconscious process.

6.0 Conclusion

The overall purpose of this study was two-folded. First of all, we wanted to see whether fluency theory could explain priming's effect on elaboration and advertisement attitude - an explanation absent in several priming studies. According to this theory, we expected to find radical changes compared to those found by Samuelsen (2004). He made use of contextual priming to test whether degree of congruence between an editorial and an advertisement affected elaboration and brand attitude, but like many other researchers on contextual priming (e.g. Yi (1990b); (1993); Jiang and Tao (2011)), he forgot to mention fluency as the explanatory mechanism taking place. This is a limitation with these studies, as fluency theory proposes different effects of priming on elaboration. According to fluency theory, one should expect that incongruently primed participants, experiencing low degree of conceptual fluency, would be highly sensitive to argument quality, while congruently primed participants should be close to indifferent to argument quality as they experience high conceptual fluency.

Second, we wanted to compare two priming methods; contextual priming and sentence scrambling task, to see if the latter, more traditional priming method resulted in different, and possibly stronger, effects. We expected the priming effects to be stronger for sentence scrambling participants as they were exposed to an assignment requiring more task involvement than contextual priming

participants, who only had to read an article. Our five hypotheses gave important insights regarding these two issues. Even though the empirical evidences did not confirm to our argumentation, we dare to claim that our findings have important theoretical and practical contributions.

Our results do not support fluency theory the way we expected. For sentence scrambling participants, fluency theory is discarded, as findings actually are more in line with Samuelsen's reasoning (2004), supporting that participants in congruent conditions elaborate more. His explanation was that it is easier for them to elaborate, as the primed content is both highly accessible and applicable when facing the subsequent evaluation task. However, this is also where the support for Samuelsen's (2004) findings ends. In our case, these effects were only found for sentence scrambling participants on advertisement attitudes, and not participants in the editorial priming conditions. An especially interesting result was that participants exposed to an editorial prime actually were insensitive to argument quality – irrespective of the level of congruence between the content of the editorial and the content of the advertisement. This indicates that fluency appears for this priming method, but contrary to expectations, both for incongruent and congruent situations. This could be due to participants only skimming through the priming stimulus, thus not noticing argument quality. Overall, these findings suggest that sentence scrambling makes a much stronger effect on argument quality sensitivity than editorial priming. This is a major theoretical contribution, as there to our knowledge has not previously been done any argument quality manipulation in combination with priming research (except from Samuelsen (2004)), and especially sentence scrambling priming.

Our results also give some practical contributions. Contextual (editorial) priming might be easier and more convenient for marketers to use. A big advantage with this method is that it appears more natural for consumers, as it does not impinge on e.g. shopping experiences to a high extent. The priming stimuli could be placed in natural settings, e.g. in shopping magazines, and will therefore be perceived as natural and not draw too much attention, reducing the chance for its purpose to be revealed, and effects to be controlled for by participants. In addition, editorial priming could be a useful tool to affect advertisement attitudes in situations where one does not have especially good sales arguments compared to competitors, as

our results suggest that the nature of this type of priming makes consumers less sensitive to argument quality due to the fluency mechanism. Therefore, according to our results, as long as the prime is accessible and applicable, it does not seem that important whether the editorial content is congruent with the advertisement or not.

Despite all these advantages associated with contextual priming, there are situations in which sentence scrambling might be more suitable, as long as one manages to incorporate it in a way not obvious for the participants/consumers. The problem with sentence scrambling is exactly that it is hard for marketers to blend it into everyday life situations, in a way occurring natural for the consumer. One possible way to naturally expose consumers to a sentence scrambling task could be to invite people entering a mall or store to participate in a contest for winning e.g. a gift card. This way, it seems like a natural marketing tactic, and consumers could be primed without revealing its true purpose. As mentioned previously, fluency theory does not seem to be a sufficient explanation for the priming effects for this technique. For sentence scrambling, congruence between the prime and the advertisement matters. Especially interesting is that marketers could affect degree of elaboration by manipulating the match (congruence) between the task content and the content of the advertisement. If marketers want consumers to elaborate upon their advertisement message, they should make sure that there is a high degree of congruence. If they rather want them to elaborate less, incongruence is more suitable.

7.0 Limitations and Future Research

This study has some shortcomings that should be addressed in future research. First, we only included a functional advertisement and the congruent conditions would therefore be a situation with a functional prime and a functional advertisement. Samuelsen and Olsen (2010) found that functional benefit claims outperformed experiential claims in high-involvement situations for new entrants and for brands with superior attributes and benefits. Therefore, for those respondents highly involved with shampoos, the functional version would be best. However, as people have varying levels of involvement towards shampoos, and as NaBema is not seen to have superior benefits over other shampoo brands, a

different ad claim type might be more suitable. Even though Samuelsen and Olsen (2010) found that low involvement participants were indifferent to ad claim type, indicating that functional ad claims can work, it could also be the case that it is better to use an experiential advertisement to reach low-involved participants. They are more likely to look at cues in the advertisement, like sensory pleasure, an endorser with long, shiny hair, etc., than reading functional arguments.

Second, as we wanted to avoid creating associations to other shampoo brands, we tried to come up with a new and original brand and packaging. However, some of the respondents mentioned that they thought NaBema resembled the well-known shampoo brand, Define.

Third, we are fully aware that our advertisement setting did not look like the modern nowadays web-designs with pop-up advertisements. Further research should try to improve the design to make it more realistic.

Fourth, another limitation might be that our product seem to appeal more to women than men with it's purple color, shape and design. Some of the respondents actually mentioned this in their surveys, that the product appealed more towards women than men. It might have been wiser to use a more gender-neutral product, as men probably are less inclined to read about a shampoo, especially one with such a feminine appeal.

Fifth, our study also had some procedure shortcomings: The total sample did not have the sufficient number of respondents in each condition as is stated by the general rule. Also, as we used non-probability sampling in our study, we did not get as representative and credible findings that one would find with probability sampling. Therefore, one should be careful to generalize these findings. Moreover, as we translated Samuelsen's material into Norwegian, small differences in meaning might have occurred from what was originally intended by him – perhaps influencing answers.

It has also come to our recollection that some respondents took the survey using smartphones. Smartphones have small screens, making it harder to see details correctly. One respondent actually stated that he did not recognize the shampoo to

be a shampoo, but rather thought it was a mascara. These are all shortcomings that could be addressed in future research. For example, it might be wise to perform similar future research in a lab setting, so that researchers to a larger extent are able to control for variables, e.g. participants' use of technology.

Furthermore, the findings of this study indicate that the priming method used has important implications for the priming effects obtained. That sentence scrambling participants were sensitive to argument quality, but not editorial participants, might suggest that participants exposed to a sentence scrambling task spent longer time processing the stimulus and completing the task, than editorial participants. Unfortunately, we were not able to see if this was the case, as there was a deficiency with the time recording on this task in Qualtrics.

Another limitation, that possibly could explain why we did not get the expected findings concerning cognitive responses, could be that we did not compute a ratio. We instead computed an index by taking (positive + neutral) – negative responses. Future research should address this problem. Also, the product category itself might explain why cognitive response results did not explain much. If respondents rather were asked to give their thoughts concerning more important or controversial subjects or themes, e.g. nuclear weapons, people might have written more.

Finally, to our knowledge, prior research done in the field of priming, e.g., Samuelsen (2004) and Yi (1990b), has mainly focused on how the primed content can affect responses to a subsequent target, like judgments and perceptions. This is also the case with the current study. Future research should consider taking this a step further and do as Berger and Fitzsimons (2008), and look at how priming affects choice behavior.

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APPENDIX 1: STIMULI USED IN THE STUDY

Introduction editorial conditions

Denne spørreundersøkelsen gjennomføres for å samle data til to avsluttende masteroppgaver. Da oppgavene tar for seg hvert sitt emne, men man ønsker å spare tid og ressurser, har to spørreskjemaer blitt slått sammen til ett.

Første del vil hovedsaklig omhandle forbrukeres reaksjoner til ulike nettformater av aviser og magasiner, mens siste del tar for seg en reklame for en ny merkevare som skal lanseres.

Denne undersøkelsen er anonym og vil kun bli brukt som evalueringsgrunnlag.

Vi setter stor pris på at du tar deg tid til å gjennomføre denne undersøkelsen. Den vil ta deg cirka 10 minutter.

På forhånd takk :)

Editorial prime cover story

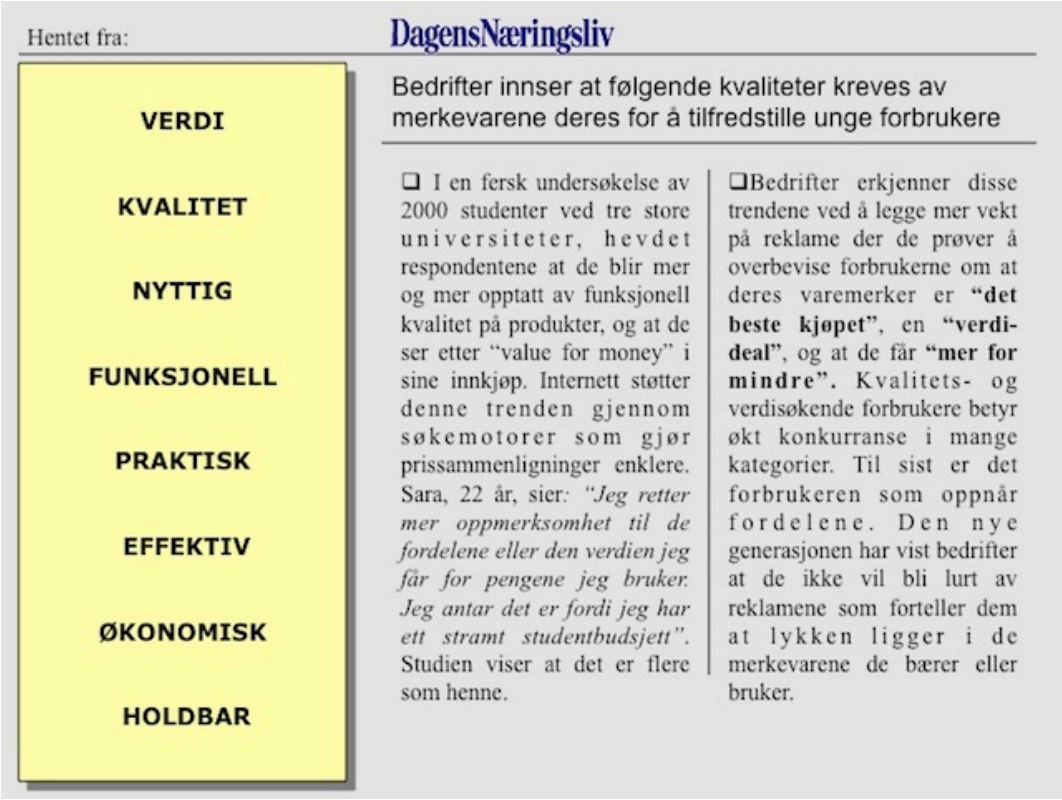
Som du sikkert allerede vet, har mange aviser og magasiner også egne nettversjoner i tillegg til sine trykte publikasjoner. Mens disse nettversjonene er gratis, kommer de i ulike formater og har ofte reklamer på samme side som artiklene.

Noen aviser og magasiner vurderer å tilby nettversjoner uten reklame, eller med en svært begrenset mengde reklame. Slike versjoner kan gjøres tilgjengelig som en abonnementstjeneste. Siden man vet lite om forbrukeres reaksjoner mot ulike nettformat (f.eks. skal den reklamefrie versjonen se ut som papirversjonen?), gjennomfører vi denne studien.

På den følgende siden vil du se et eksempel av et mulig format. Etter å ha studert denne siden, vil du bli bedt om å gi din vurdering av layouten.

Vennligst les historien grundig og bruk den tiden du trenger.

Congruent prime story editorial prime



Hentet fra: DagensNæringsliv

VERDI

KVALITET

NYTTIG

FUNKSJONELL

PRAKTISK

EFFEKTIV

ØKONOMISK

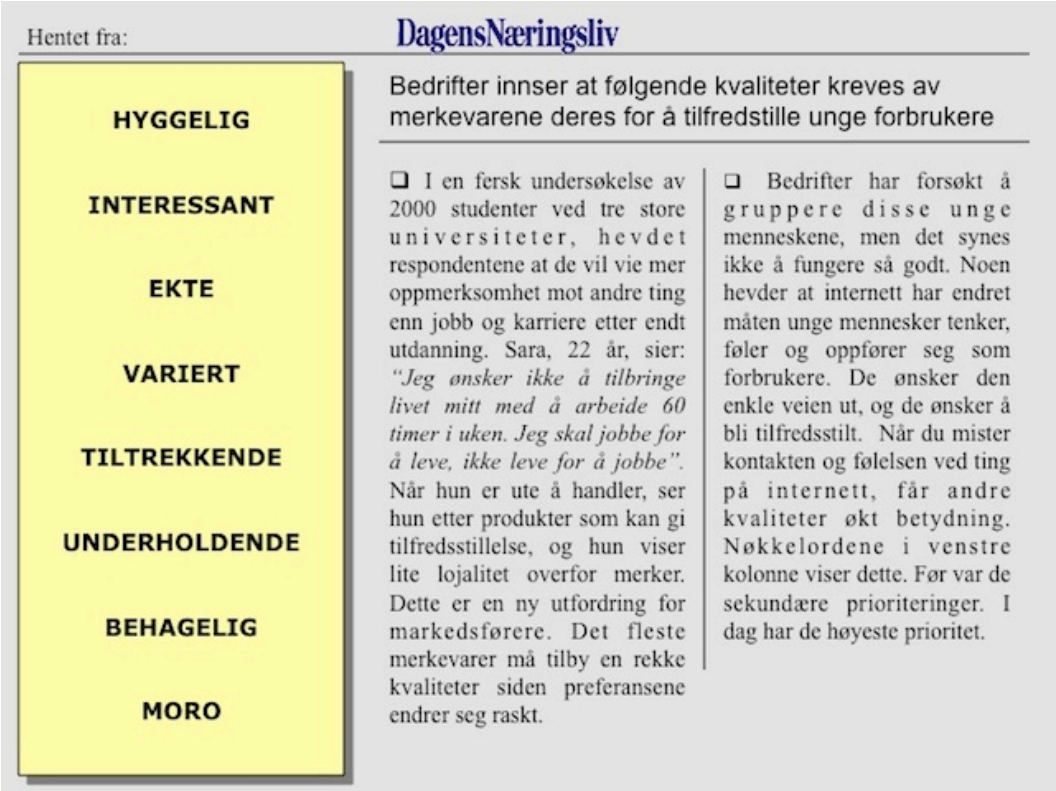
HOLDBAR

Bedrifter innser at følgende kvaliteter kreves av merkevarene deres for å tilfredstille unge forbrukere

❑ I en fersk undersøkelse av 2000 studenter ved tre store universiteter, hevdet respondentene at de blir mer og mer opptatt av funksjonell kvalitet på produkter, og at de ser etter "value for money" i sine innkjøp. Internett støtter denne trenden gjennom søkemotorer som gjør prissammenligninger enklere. Sara, 22 år, sier: *"Jeg retter mer oppmerksomhet til de fordelene eller den verdien jeg får for pengene jeg bruker. Jeg antar det er fordi jeg har ett stramt studentbudsjett"*. Studien viser at det er flere som henne.

❑Bedrifter erkjenner disse trendene ved å legge mer vekt på reklame der de prøver å overbevise forbrukerne om at deres varemerker er **"det beste kjøpet"**, en **"verdi-deal"**, og at de får **"mer for mindre"**. Kvalitets- og verdisøkende forbrukere betyr økt konkurranse i mange kategorier. Til sist er det forbrukeren som oppnår fordelene. Den nye generasjonen har vist bedrifter at de ikke vil bli lurt av reklamene som forteller dem at lykken ligger i de merkevarene de bærer eller bruker.

Incongruent prime story editorial prime



Hentet fra: DagensNæringsliv

HYGGELIG

INTERESSANT

EKTE

VARIERT

TILTREKKENDE

UNDERHOLDENDE

BEHAGELIG

MORO

Bedrifter innser at følgende kvaliteter kreves av merkevarene deres for å tilfredstille unge forbrukere

❑ I en fersk undersøkelse av 2000 studenter ved tre store universiteter, hevdet respondentene at de vil vie mer oppmerksomhet mot andre ting enn jobb og karriere etter endt utdanning. Sara, 22 år, sier: *"Jeg ønsker ikke å tilbringe livet mitt med å arbeide 60 timer i uken. Jeg skal jobbe for å leve, ikke leve for å jobbe".* Når hun er ute å handler, ser hun etter produkter som kan gi tilfredsstillelse, og hun viser lite lojalitet overfor merker. Dette er en ny utfordring for markedsførere. Det fleste merkevarer må tilby en rekke kvaliteter siden preferansene endrer seg raskt.

❑ Bedrifter har forsøkt å gruppere disse unge menneskene, men det synes ikke å fungere så godt. Noen hevder at internett har endret måten unge mennesker tenker, føler og oppfører seg som forbrukere. De ønsker den enkle veien ut, og de ønsker å bli tilfredsstilt. Når du mister kontakten og følelsen ved ting på internett, får andre kvaliteter økt betydning. Nøkkelordene i venstre kolonne viser dette. Før var de sekundære prioriteringer. I dag har de høyeste prioritet.

Introduction sentence scrambling conditions

Denne spørreundersøkelsen gjennomføres for å samle data til to avsluttende masteroppgaver. Da oppgavene tar for seg hvert sitt emne, men man ønsker å spare tid og ressurser, har to spørreskjemaer blitt slått sammen til ett.

Første del vil hovedsaklig omhandle hvordan mennesker konstruerer setninger, mens siste del tar for seg en reklame for en ny merkevare som skal lanseres.

Denne undersøkelsen er anonym og vil kun bli brukt som evalueringsgrunnlag.

Vi setter stor pris på at du tar deg tid til å gjennomføre denne undersøkelsen. Den vil ta deg cirka 10 minutter.

På forhånd takk :)

Cover story for sentence scrambling task

Fersk forskning har vist at mennesker bruker ulike kognitive prosesser når de konstruerer setninger. Det har vist seg at vi konstruerer setninger forskjellig ut i fra hvilken alder vi har. Vi ønsker å se nærmere på denne linken, og ber deg derfor om å delta i en oppgave hvor du skal konstruere setninger.

Congruent prime condition sentence scrambling task

Nedenfor får du oppgitt 15 sett med ord plassert hulter til bulter. Din oppgave er å konstruere en fullverdig setning for hvert sett, hvor du bruker fire av de fem ordene. Skriv setningene dine inn i tekstboksene.

stor hytte verdi har penger	
appelsin kan pepper nyseanfall gi	
kvalitet har overgang stoffet fin	
nyttig lærte mye fin hun	
stor er funksjonell lite bilen	
hadde er asfalt lagt ny	
rettet praktisk var oppgaven kravstor	
var deres mellom arbeidsfordelingen effektiv	
tenke studenter må vaske økonomisk	
akkurat lite melken holdbar er	
mellom meget avtalen formålstjenlig er	
arbeidskraft er etterspurt fra billig	
slitt hans anvendelig var antrekket	
hans beslutningstakingen kul rasjonell er	
bra flyge seg følte han	

Incongruent prime condition sentence scrambling task

Nedenfor får du oppgitt 15 sett med ord plassert hulter til bulter. Din oppgave er å konstruere en fullverdig setning for hvert sett, hvor du bruker fire av de fem ordene. Skriv setningene dine inn i tekstboksene.

var som han hyggelig svært	
kjedelig var mannen interessant veldig	
lengst kjærlighet ekte bil varer	
best variert mat ski er	
tiltrekkende han for kjører fort	
grønn komikere publikum underholdende drar	
moro hennes bursdagsselskapet blå var	
ute behagelig temperaturen stilig er	
usunt potetgull salt er som	
veldig som sjarmerende var hun	
krimbøker best spennende er interessant	
om møtet fornøyelig deres var	
oppgaver hadde fascinerende de temaet	
sement støpes muren av eple	
mindre lystbetont var stemningen huske	

Cover question sentence scrambling task

Hva er din alder?

Cover story before advertisement exposure

Mange bedrifter er usikre på hvordan informasjon om merkevarene deres bør presenteres. I dag synes informasjon om merkevarer å drukne i andre typer informasjon, som for eksempel bannerannonser og så videre. Vi vil be deg om å evaluere en merkevare for et selskap som vurderer å presentere merkevaren sin i fullskjermsformat. Presentasjonen du er i ferd med å se er ikke helt ferdig utviklet - du skal derfor ikke legge for mye vekt på annonsegjennomføringen. Bildet er bare illustrativt.

Din oppgave vil være å gi en helhetlig vurdering av merkevaren og måten den blir presentert på. Du skal vurdere informativ verdi av presentasjonen.

Som du vil observere, er det ingen informasjon om pris i presentasjonen. Dette skyldes at merkevaren ennå ikke er lansert. Du bør imidlertid anta at prisen vil være fornuftig i forhold til konkurrerende merker av samme kvalitet.

Advertisement strong argument condition

Advertisement weak argument condition

APPENDIX 2: MEASUREMENT ITEMS USED IN THE STUDY

Need for cognition (Cacioppo, Petty and Kao 1984)

7-poengsskala, 1 = svært lite karakteristisk, 7 = svært karakteristisk

NFC_1: Jeg foretrekker komplekse fremfor enkle problemer:

NFC_2: Jeg liker å ha ansvaret for å håndtere situasjoner som krever mye tenking

NFC_3: Å tenke er ikke noe gøy

NFC_4: Jeg vil heller gjøre noe som krever lite tenking enn noe som utfordrer mine evner til å tenke

NFC_5: Jeg forsøker å oppfatte og unngå situasjoner hvor det er sannsynlighet for at jeg må tenke grundig på noe

NFC_6: Jeg finner det tilfredsstillende å overveie ting grundig over lengre tid

NFC_7: Jeg tenker bare så hardt som jeg må

NFC_8: Jeg foretrekker å tenke på små daglige prosjekter foran de med lengre tidsperspektiv

NFC_9: Jeg liker oppgaver som krever lite tenking så snart jeg har lært de

NFC_10: Ideen om å stole på egen tenking for å nå toppen tiltaler meg

NFC_11: Jeg liker oppgaver som involverer å finne nye løsninger på et problem

NFC_12: Jeg foretrekker at livet er fylt med ulike nøtter som må løses

NFC_13: Tanken om å tenke abstrakt er tiltalende

NFC_14: Jeg ville foretrekke en oppgave som er intellektuell, vanskelig og viktig foran en som er litt viktig men ikke krever mye tenking

NFC_15: Jeg føler lettelse mer enn tilfredsstillelse etter å ha fullført en oppgave som krevde mye mental innsats

NFC_16: Det er tilstrekkelig for meg at noe får jobben gjort; jeg bryr meg ikke om hvordan eller hvorfor det fungerer.

NFC_17: Jeg ender vanligvis opp med å overveie problemstillinger selv om de ikke berører meg personlig

NFC_18: Å lære nye metoder å tenke tiltaler meg ikke noe særlig.

NFC_19 (Control question): Du skal ikke merke av noen sirkel på dette spørsmålet. Gå videre til neste spørsmål.

Category involvement (Laurent & Kapferer, 1985; Mittal and Lee, 1988)

7-poengsskala, 1 = svært uenig, 7 = svært enig

Instruction: Vennligst merk av i hvilken grad du er enig i følgende påstander:

Involv_1: Jeg bryr meg veldig om hvilken shampoo jeg bruker.

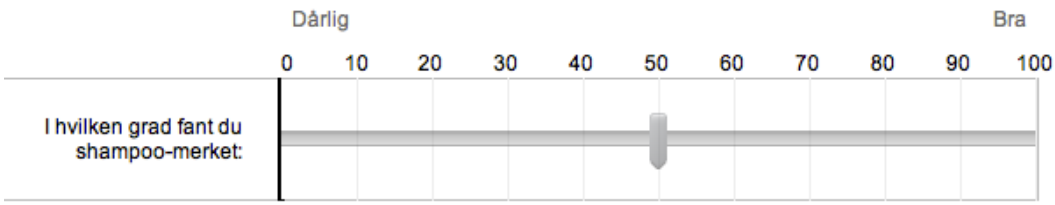
Involv_2: Jeg synes det innebærer en stor risiko hvis en velger feil shampoo for håret sitt.

Involv_3: Valg av shampoo er viktig for meg.

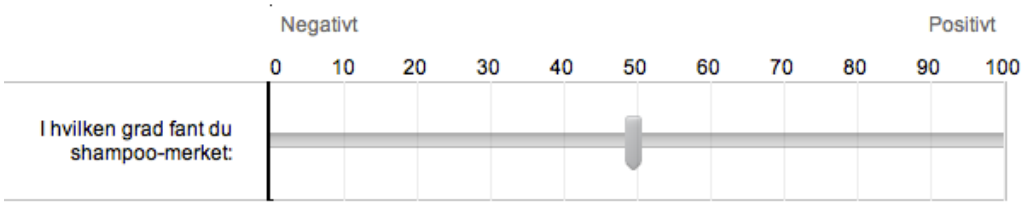
Attitude toward the brand (Haugtvedt and Petty, 1992; Yi, 1990)

Instruction: Vennligst sett markøren på det punktet som best beskriver din vurdering av shampoo-merket.

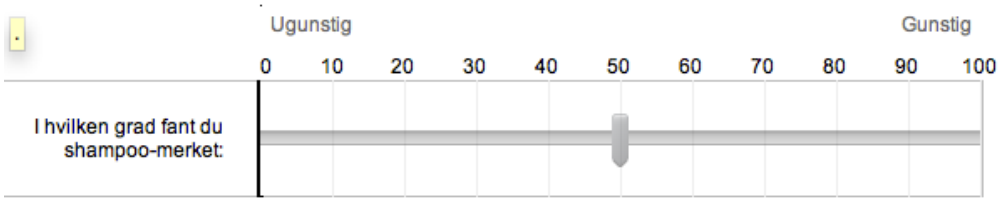
Bratt1_1



Bratt2_1



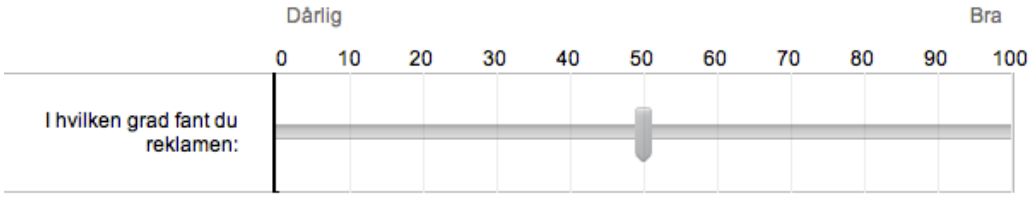
Bratt3_1



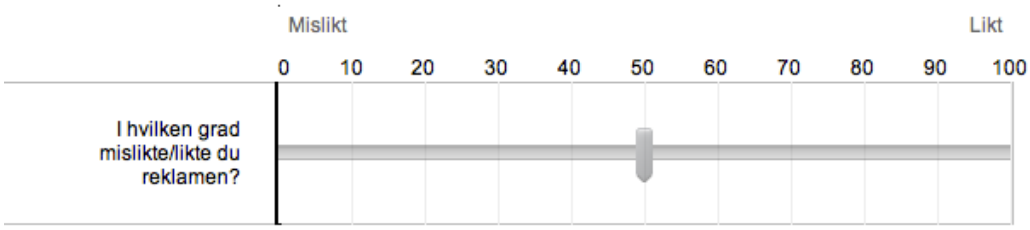
Attitude toward the advertisement (Aylesworth and MacKenzie, 1998; MacKenzie and Spreng, 1992)

Instruction: Vennligst sett markøren på det punktet som best beskriver din vurdering av reklamen.

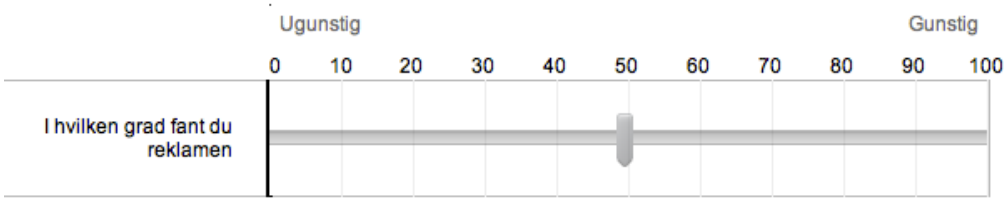
AttAd1_1



AttAd2_1



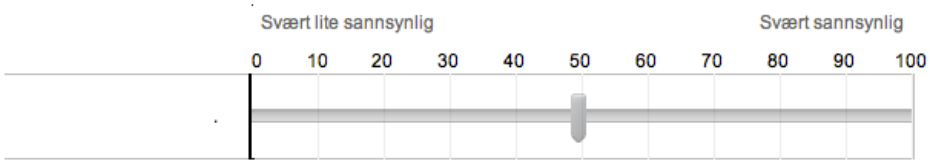
AttAd3_1



Purchase intention

Purint_1

Vennligst sett markøren på det punktet som best beskriver sannsynligheten for at du vil kjøpe NaBema når merket blir tilgjengelig på markedet.



Thoughts listings

Her vil vi at du skriver ned alle tankene som gikk gjennom hodet ditt da du leste reklamen for NaBema. Vi ønsker dine oppriktige tanker - ingenting er feil her!

Manipulation checks

Editorial prime task

Instructions: Vennligst merk av i hvilken grad du er enig i følgende påstander:

- *Congruent prime* Sara bryr seg om funksjonaliteten og kvaliteten på de varene hun kjøper.
- *Incongruent prime* Sara kjøper kun det som tilfredsstiller henne, og hun lever i nuet.

Skala 1(svært uenig) – 7(svært enig)

Sentence scrambling task Da du laget setningene, la du merke til om noe spesielt tema gikk igjen? 1=ja, 2=nei, 3=vet ikke
Hvis ja, hvilket tema?

Argument strength Merk av i hvilken grad du synes informasjonen i reklamen er sterk
Skala 1-100 (1=veldig svak, 100=veldig sterk)

In order to see if participants understood they had been primed:

Hadde svarene du gav tidlig i undersøkelsen innvirkning på dine senere svar?
1=ja, 2=nei, 3=vet ikke

Hvis ja, kan du si på hvilken måte?

APPENDIX 3: PRELIMINARY REPORT

The following preliminary report was based on our term paper in GRA 64331 – Theories and methods in marketing communication, which was written together with Rita Cecilie Fossmann.

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‘BI Norwegian Business School - Preliminary Thesis Report’

-How priming influence choice behavior-

The underlying mechanism of conceptual fluency and the moderating role of familiarity

Hand-in-date:
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Program:
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Bendik Samuelsen

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Summary

The current paper presents a proposal for an experiment done on priming, which through the underlying mechanism conceptual fluency, is expected to have an effect on choice behavior. The first part of the paper reviews prior literature related to the topic. Based on this, a research question and two hypotheses are formed. The second part of the paper presents the research methodology - in essence how the research is to be conducted in terms of an experiment consisting of two phases. Results of this experiment will provide a good foundation for future studies and have relevant practical value.

1.0 Introduction

Consumer behavior has shown to be influenced by different marketing tactics, including brand names, slogans, endorsers, pricing and sales people. These tactics' influence often happen automatically, in subtle ways that consumers are not aware of or cannot control for. (Laran, Dalton and Andrade 2010, 999). Moreover, in recent years, marketers have realized the importance of environmental cues on consumer behavior. A new growing topic within the field of marketing, that deals with unconscious influence, is priming, which has received a lot of attention the last decade.

Theory, as referred to by Berger and Fitzsimons (2008, 2), suggest that perceptually or conceptually related stimuli (primes) can influence product choice and evaluations (Gordon and Holyoak 1983, Whittlesea 1993), as they can automatically activate associated representations in memory and make them more accessible (Higgins, Rholes, and Jones 1977). This suggest that marketers should develop brand names, logos and slogans etc. according to prevalent cues in their environment in order to achieve desired effects. The aim of the current research is to provide a deeper understanding of the effects of priming. Our research question is: "How can a prime, through the underlying mechanism conceptual fluency, influence choice behavior - and what is the moderating effect of familiarity in this context?"

The brand Apple will be used as the target-brand in this experiment, which has succeeded in developing a strong and religious-like customer base. Apple is a multinational company engaged in design, development and marketing of personal computers, media devices, and portable digital music players (Datamonitor 2011). Seeing that many people are familiar with the Apple logo and products, we want to investigate whether the prime of pears can be used to influence the choice behavior of people with high familiarity towards the Apple brand. Our independent variable consists of primes in four levels, which reflect different degrees of conceptual fluency. The dependent variable is choice behavior, which reveals the effect of the prime. Choice behavior will be investigated by measuring the propensity of respondents choosing a gift card of iTunes, an Apple product, over a gift card of Spotify, a popular non-Apple

product with somewhat similar features. We have chosen iTunes as the important measurement of choice behavior seeing that it can be used for both Mac and PCs, and because it is an Apple product, which appeal to several people. It also concerns downloading and organization of digital audio and video files, which is highly popular at the moment (Datamontior 2011). Moreover, we see familiarity with Apple (high vs. low) as a potential moderator of this effect. Furthermore, attitudes will be included in the experiment as a covariate, however it will not be tested per se as familiarity is the focal objective in this experiment. The results of this study can be an important contribution to marketing theory, as it suggests a way companies can affect consumers' choice behavior.

2.0 Literature Review

For years, marketers' use of subliminal persuasion as a tool to persuade consumers unconsciously has caused concerns. The hysteria started in 1957 when the researcher James Vicary faked a study where he opposable displayed subliminal messages during the screening of a movie with the slogans; "Hungry? Eat popcorn" and "Drink Coca-Cola", which could not be processed by the human eye consciously. He claimed that the subliminal messages displayed increased sales of popcorn and Coca-Cola. This caused monster-like debacles, as people believed that subliminal messages were already in use in films and that it was implemented in order to spread propaganda or political persuasion. As a result, many countries banned this type of advertisement. (Experiment-Resources.com 2008). However, as mentioned by Samuelsen (2011) in class, even though subliminal persuasion exists, it will only be effective as long as we do not think.

2.1 Prior Research Done in the Field of Priming

Priming manipulations is a tool that can be used in order to influence consumers' behavior without them knowing (Wheeler and Berger 2007, 357). Priming is a process where content is made accessible unconsciously and temporarily in memory (Samuelsen 2004). Higgins (1996), as sited by Samuelsen (2004, 10), define (conceptual) priming as "the influences on target impression formation that are the result of any non-target factor that makes particular knowledge relatively

accessible - be it primed attributes or traits, exemplars of the target category, moods, emotions or even personal goals or motivations".

Priming can be used both subliminally – the prime is not accessible to the individual and thereby one has no chance of controlling the influence, or supraliminally – where the individual is aware that there is a prime, without knowing of its influence (Samuelsen 2004, 4, 20). The current research will test the use of subliminal priming, as this is a highly debated topic within the current field. Shapiro (1999, 16) found that while a person focuses his/her attention on a primary task, other information that is not the object of attention could be processed. Hence, the use of subliminal priming can cause an unconscious effect in the mind of the respondent. Prior research done in the field of priming has mainly focused on how the primed content can affect judgments, perceptions, and responses to a subsequent target (Samuelsen 2004). The current research will take this a step further and evaluate how a prime affects the respondent's choice behavior.

According to the theory of information integration, to arrive at an overall judgment, one integrates specific features of the target and assesses their evaluative implications. Which features we attend to, or recall from memory, might be integral or incidental influences to the target. Incidental influences can determine how ambiguous features are interpreted (Anderson 1981, as sited in Winkielman et al. 2003, 2). Moreover, Higgins (1990, as sited in Samuelsen 2004, 11) mention that it is only stored constructs that can be activated, meaning that one needs some prior knowledge of the construct in memory. The present research will therefore divide the respondents into cells based on their familiarity towards the target brand. Familiarity will be further elaborated upon in 2.3 Familiarity below.

2.2 Processing Fluency - Conceptual and Perceptual

As mentioned by Samuelsen (2011) in class, processing fluency is the underlying mechanism producing the priming effects. According to Jacoby and Dallas' (1981) definition, as referred to by Lee and Labroo (2004, 151), processing

fluency is "the ease with which consumers identify and recognize the target." The underlying assumption is that high fluency is positive (Reber, Schwarz and Winkielman 2004, 367). High fluency refers to a positive state of affairs, either within the cognitive system or environment (Winkielman et al. 2003, as referred to by Reber, Schwarz and Winkielman 2004, 367). Reber, Schwarz and Winkielman (2004, 367) suggest that this is because high fluency is associated with progress toward successful recognition of the stimulus, error-free processing, or the availability of appropriate knowledge structures to interpret the stimulus (Carver & Scheier, 1990; Derryberry & Tucker, 1994; Fernandez-Duque, Baird, & Posner, 2000; Schwarz, 1990; Simon, 1967; Ramachandran & Hirstein, 1999; Vallacher & Nowak, 1999). Moreover, high fluency may also feel good because it signals familiarity with an external stimulus, making it unlikely that the stimulus is perceived as harmful (Zajonc, 1968, 1998, as referred to by Reber, Schwarz and Winkielman 2004, 367). Prior exposures enhance this fluency, which leads to a more favorable attitude towards the target (Anand and Sternthal (1991), Bornstein (1989) and Seamon et al. (1995), as referred to by Lee and Labroo 2004, 154). Moreover, prior exposure makes a brand come easier to mind, which increases the probability that a brand is part of the consideration set and gets chosen (Lee 2002, Nedungadi 1990, Shapiro, MacInnis, and Heckler 1997, as referred to by Lee and Labroo 2004, 152).

Processing fluency can be conceptual or perceptual (Tulving and Schacter 1990, as referred to by Lee and Labroo 2004, 151). Perceptual fluency reflects the ease with which one can identify a target stimulus and involves the processing of physical features, such as modality and shape (Jacoby and Dallas 1981, as referred to by Lee and Labroo 2004, 151). According to Reber, Schwarz and Winkielman (2004, 367), variables like perceptual priming, clarification, presentation duration, repetition or figure-ground contrast influence perceptual fluency. Conceptual fluency, on the other hand, reflects the ease with which the target comes to mind and pertains to the processing of meanings (Hamann 1990, as referred to by Lee and Labroo 2004, 151). Berger and Fitzsimmons (2008, 11) found that frequency of exposure to conceptually related cues affects an object's conceptual fluency, and that this conceptual fluency makes conceptual priming elicit positive evaluations. While research (Anand and Sternthal 1991; Bornstein 1989, referred to by Lee and Labroo 2004, 151-152) on perceptual fluency has shown an effect

on affective judgment, research on conceptual fluency mostly facilitates inclusion in the consideration-set and memory-based choice, as the result of increased accessibility of the target in memory (Lee 2002; Nedungadi 1990; Shapiro, MacInnis, and Heckler 1997, as referred to by Lee and Labroo 2004, 151-152). Furthermore, while conceptual fluency benefits from elaboration at the time of exposure, perceptual fluency does not. In addition, perceptual fluency is sensitive to changes in surface features, whereas conceptual fluency is not. (Lee and Labroo 2004, 152). The current research will focus on conceptual fluency, as we believe that activation of pear will spread to the category "fruits" and thus transfer to apples when conceptual fluency is considered compared to perceptual fluency.

Winkielman et al. (2003, 5) further divide fluency into objective- and subjective fluency in relation to whether or not it is being reflected as a conscious experience. Objective fluency refers to an efficient mental process characterized by high speed, low resource demands, high accuracy etc. without necessarily assuming that these processes are reflected on a subjective level. Subjective fluency is a conscious experience of processing ease, low effort, high speed, etc. (Winkielman et al. 2003, 5). The current research will consist of objective fluency, as the respondents are not aware of the prime during the experiment.

According to the discrepancy-attribution hypothesis (Whittlesea and Williams 1998, 2001a,b, as referred to by Berger and Fitzsimons (2008, 2)), processing ease (a result of being exposed to a prime) will only influence judgment positively if the participants do not expect fluency. Then people will not reflect on or correct for it. However, as soon as the respondents start reflecting on why they are exposed to fruits, and see the link with gift cards, we assume this elaboration will lead to correction, and therefore increase the chance of choosing Spotify instead of iTunes.

2.3 Familiarity

As mentioned by Samuelsen (2004, 20-21), there are two important prerequisites for a priming effect to occur - accessibility and applicability. The latter refers to that there needs to be a sufficient match between the features of the mental

construct, and the features of the stimulus (Samuelsen 2004, 21). The following discussion will however deal with accessibility.

For a priming effect to occur, the content needs to be accessible. This means that there needs to be an activation potential of available knowledge (Higgins (1996) as sited in Samuelsen 2004, 20). Higgins, Rholes, and Jones (1977, as referred to by Berger and Fitszimmons 2008, 2) mention that situational cues or primes automatically can activate associated representations in memory, thus are making them more accessible. Many researchers in cognitive and social psychology have found that the accessibility of a certain concept is enhanced by prior exposure to the concept (Higgins and King 1981, as referred to by Yi 1990, 216). The more recently a concept is activated, the greater the accessibility (Yi 1991, 417). This can be related to Wyer and Srull`s "storage bin" model, where a recently activated concept is placed to the top of a layered bin, and the construct at the top is most likely to be used in interpreting new incoming information (Yi 1991, 423). This could be explained by the processing fluency/attribution model, which propose that when exposed to the stimulus at an earlier phase, the stimulus is easier to perceive, process and encode when exposed to it at a later stage (Bornstein and D'Agostino 1992, 1994, as referred to by Janiszewski and Meyvis 2001, 18) and thus leading to a feeling of familiarity (Higham and Vokey 2000, 574). Hence, prior exposure and encounters with a target, leading to a sense of familiarity, must be present in order for the prime to sufficiently increase accessibility (Wheeler and Berger 2007, 358). In addition, familiarity-based recognition can be described as an automatic, unconscious process of memory that does not involve retrieval of contextual detail (Higham and Vokey 2000, 574) and the fluency of the item provides an important basis for familiarity (Wolk et al. 2004, 150).

To sum up, conceptual fluency will increase the ease with which Apple comes to mind, and the resulting positive feeling will enhance the choice likelihood of iTunes. Moreover, we suggest that this effect is moderated by familiarity with Apple, as familiarity increases the likelihood of accessibility, which is a necessary condition for priming effects to occur. Increased accessibility will enhance the likelihood of priming effects of pears, oranges and broccoli - however in different degrees, as will be explained subsequently. In other words, the respondent needs to have some prior knowledge - familiarity about iTunes and know that it is part

of the Apple brand, in order to be primed into choosing iTunes. In a somewhat similar study, Berger and Fitzsimmons (2008, 9, 11) suggested and found support for their proposition that exposure to dog images should increase evaluations of Puma sneakers, however only to the extent that participants have a conceptual link between the cue (dogs) and the products (Puma sneakers).

3.0 Determination of Hypotheses

There is evidence that cognitive associations in memory might make the activation of one construct spread to related constructs, in accordance with Collins and Loftus' (1975) spreading activation theory. As a direct example of this, we turn to Berger and Fitzsimons (2008, 9) who suggest that being exposed to dog images might activate the cat category, since, as mentioned by Smith, Shoben and Rips (1974), these animals have feature similarities leading to a strong cognitive association in memory. Moreover, research (Collins and Loftus 1975; Collins and Quillan 1969, 1972, as referred to by Berger and Fitzsimons 2008, 9) have shown that activation spreads from the category label, e.g. cat, to members of that category. Berger and Fitzsimons (2008) therefore assumed that when the cat category is primed, pumas become more accessible. As already mentioned, they found that if people had a conceptual link between the cue (dogs) and the puma brand, they evaluated the Puma brand more favorably. Moreover, they found that such conceptual priming effects emerge without deliberate learning and outside of conscious awareness. (Berger and Fitzsimons 2008,11). In addition, they found, in other experiments, that increased accessibility influences product choice (Berger and Fitzsimons 2008, 1).

Based on this evidence we believe that the results can be applied in other cases as well. We propose that if a person is exposed to pears, the activation of the construct "pear" will spread to the related construct "fruit", which further spreads to other members of the "fruit"-category, e.g. apples. Pears and apples are high in conceptual fluency, as in everyday speech, we talk of apples and pears. Apples and pears are also somewhat similar in taste. They are therefore likely to be closely linked in memory. As we all know, an apple is a highly visible part of the Apple logo. Therefore, when pears are used as a prime - Apple will become more accessible and applicable through the link between apples and pears. Moreover, as

Berger and Fitzsimmons found when there was a conceptual link between the cue and the target, the respondents evaluated the target more favorably; we therefore assume that if respondents see a conceptual link between pears and the Apple brand, they will choose iTunes. On the other hand, when respondents are primed with oranges, one will use perceptual fluency as apples and oranges are more similar in shape. We assume that the link between oranges and the Apple brand will be less apparent than for pears. Broccoli will have an even less apparent link, as neither the shape nor category link is present. Moreover, when consumers are presented with the control cue (nothing at all) the accessibility of Apple will be non-existent. When not presented with anything at all, respondents will not see any link to the Apple brand, hence will not be influenced into choosing iTunes. Based on this, we propose the following hypothesis:

H1: The respondents that are primed with pears will be more influenced to choose iTunes, than respondents primed with oranges, broccoli or nothing at all.

As mentioned above, in order for the respondents to connect pears to the brand Apple, they first and foremost need to know of Apple, hence a feeling of familiarity must be present. We therefore propose that when familiarity is present there is a better chance that the respondents choose iTunes as a consequence of the prime of pears, seeing that they are more aware of Apple through prior encounters and thus will unconsciously link different primes to the Apple brand automatically. Based on the following argumentation we propose the next hypothesis:

H2: The respondents with high familiarity to Apple are more likely to choose iTunes, as a consequence of the prime of pears, than less familiar respondents.

However, an alternative scenario can occur seeing that respondents with high familiarity of the Apple brand might choose iTunes regardless of the primes, as a consequence of familiarity and prior exposure. The respondents might feel that choosing iTunes compared to Spotify is the safest alternative that involves less risk as they have some prior knowledge about the brand. The concept of attitudes will also play a part in this scenario, as a positive attitude towards the brand connected with high familiarity will positively affect the respondent's choice of

iTunes over Spotify. Figure 1 below shows the conceptual model for the current experiment.

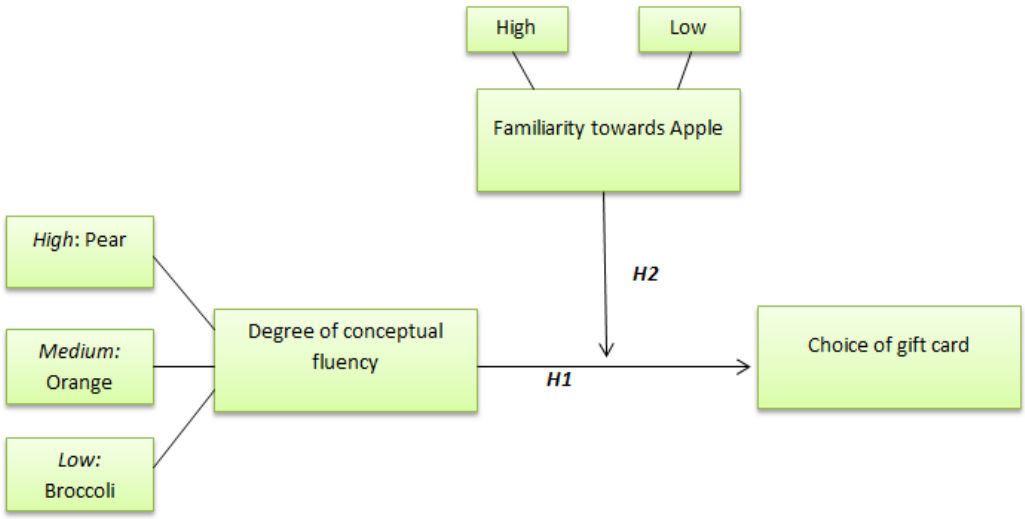

Figure 1: **Conceptual model**

4.0 Methodology

4.1 Procedure and Design

The experiment will be divided into two phases. In the first phase, respondents will be asked to answer a questionnaire consisting of three parts. The first part will measure the respondents' recall of specific electronics, software, hardware and appliance brands. We have included a large range of product categories in order to disguise the true meaning of the research and ensure internal validity. The respondents will be asked the following question: "Please write down the brands that comes to mind when faced with the different product categories". The second part of the questionnaire will measure the respondent's recognition of different brands within the product categories mentioned above. This part will provide the respondents with 10 logos from the following brands; Phillips, Microsoft, Apple, Bosch, Electrolux, Opera software, Whirlpool, Android, Blackberry and Sony Ericsson. We have chosen to include brands that have a logo and do not display the brand name, so the respondents cannot without knowing the brand place the right logo with the right brand name. The respondents will be asked: "Please write the brand that is connected to each logo". It is important that the respondents know the Apple logo in order to investigate whether conceptual fluency influence

the respondents with familiarity towards the Apple brand. The last part of the questionnaire will measure the respondent's attitude towards the brands mentioned in the second part of the questionnaire as well as their attitudes towards iTunes, Spotify and other products from the different providers. This is done because it is likely that the respondent's attitude will have an effect on choice likelihood. We therefore include attitudes as a covariate, in order to control for it. The respondents will be asked to rate the different brands on a 7-point Likert scale: anchored by the phrases "I like this brand (7) - I do not like this brand (1)", "I prefer this brand to other providers (7)- I do not prefer this brand (1)" and "I would choose this brand in the specific product category (7)- I would not choose this brand (1)". It is important to mention that the respondents will not receive the whole questionnaire at once, but one part at a time in order to eliminate the possibility of bias answers by flipping through the whole questionnaire at ones. By measuring the respondent's familiarity towards the Apple brand and the products they offer, in terms of recall and recognition, we can easily divide the respondents into groups and thus provide each group with different primes.

After finishing the first part of the experiment, the respondents will be asked if they would volunteer to participate in a seemingly unrelated study about "healthy food consumption." Moreover, they will be informed that as a token of appreciation they will be able to choose a gift card with a value of $35 after finishing the second study. By offering the respondents an incentive to participate in the second phase of the experiment we believe that more will sign up. In addition, the incentive of a gift card will be used to measure the dependent variable: choice behavior. The second phase of the experiment will be conducted one week after the first study and will consist of a similar questionnaire as provided in the first part of the experiment. When entering the room, six of the groups/cells will be told that they are welcome to choose a fruit/vegetable (independent variable) from the basket on the table, which is visible throughout the entire study. They will then be asked to mention food that they consider healthy and then rate different healthy foods on a 7-point Likert scale anchored by the phrase; "I consider this a healthy alternative (7)- I do not consider this a healthy alternative (1)". The true purpose is hidden as we really are interested in whether priming influences choice behavior. Before leaving, they can choose among two gift cards (which will reflect our dependent variable) - one from

iTunes (an Apple product) or one from Spotify (non-Apple product). The effect of the prime as well as the effect of brand familiarity will be determined as a consequence of their choice of gift card. Thus, the main study's design is a 4 (Prime: High, medium, low, control) x 2 (Familiarity: high vs. low) randomized between-subjects design, with choice of gift card as dependent variable.

4.2 Participants

We will use a systematic random sample of middle-aged people between the ages of 30-60 years living in the Oslo area for the two seemingly unrelated phases of the experiment. This is a probability sampling design, meaning that the likelihood of each population entity being included in the sample is known (Easterby-Smith, Thorpe and Jackson 2008, 216). We choose to use probability sampling as we want to generalize our findings to the population. Norstat - a data gathering company, will, based on a randomly organized list consisting of people with the above mentioned criteria, pick participants in a systematic way that will be biased free. It is positive for our recruitment of participants for the second phase of the experiment that all participants live in Oslo, making it more convenient for them to participate.

As mentioned in Wheeler and Berger's article (2007, 358), participants need some amount of knowledge for the prime to sufficiently increase accessibility. In order to test our hypotheses, we need people reflecting both high- and low- familiarity with Apple. Middle-aged people is a convenient group for this study as we believe there are differences in how familiar this age group is with Apple and electronic brands in general. They differ in how technology ready they are - e.g. some of them use computers at work and are interested in technological gadgets, others not. This age-group were not exposed to technology to the same degree in their childhood as today's youths. As an alternative, we thought about using a convenience sample of students from the University of Oslo, but we decided not to as we believe most of them are very familiar with the Apple brand.

4.3 Sample-Size

In order to achieve a credible sample, one should always think of combining precision and representativeness (Easterby-Smith, Thorpe, and Jackson 2008, 213-215). According to Hayes (2008, 93) precision is "the degree of sampling error" - that is the amount that sample statistics vary from the population parameter. Greater sampling error leads to less precision, but sampling error could be reduced by having a larger sample size. By building on this relationship, and a formula suggested by Hayes (2008, 95), we can determine the sample size we need in order to reach a specific level of precision in our estimate. The formula includes the standard deviation (s), the confidence level (t) and the tolerable error (TE). By choosing a 95% confidence level (t=2.0), a tolerable error (TE) of 0.20, and setting the standard deviation (s) to 1.0, which according to Hayes (2008, 95) is the average standard deviation for survey items, we should have the following sample size:

$$n = \frac{t^2 x s^2}{TE^2} = \frac{2.0^2 x 1.0^2}{0.20^2} = 100$$

However, as probably not all of the respondents are willing to participate in the second phase of the experiment run a week later, we need to have something to go on in terms of sample size. Based on the following formula (Hayes 2008, 99), we should distribute our first-phase questionnaire to the following number of participants:

Distribution size: Needed sample size/ Response rate = 100 / 0.5 = 200

4.4 Manipulations and Measurement of Independent Variables

Manipulation of the independent variable will be done by changing the prime (pear, orange, broccoli and no prime) in accordance with the different cells in the experiment. The manipulation will be done in order to reveal whether there is a connection between the different primes and the choice of gift cards. Hence, two groups will be exposed to pears (high conceptual fluency), two groups to oranges (medium conceptual fluency), two groups to broccoli (low conceptual fluency) and two groups will not be exposed to any prime. This provides us with eight different cells. Thus, conceptual fluency will be manipulated by showing related and unrelated primes during the experiment. The different cells are illustrated in

figure 2 below:

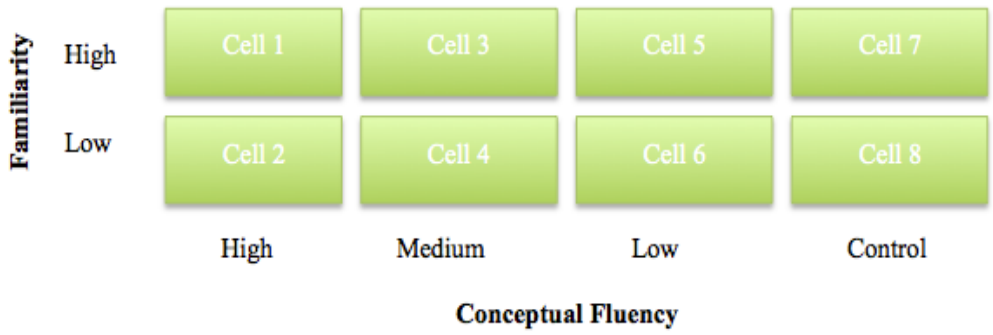

Figure 2: Different cells in the experiment

The moderating function of familiarity will work as a segmentation tool when arranging the different cells in the experiment. Two groups will be exposed to the same prime, however one of the groups has a high familiarity towards Apple whereas the other group has low familiarity towards Apple. Moreover, we measure the effect of the moderator by investigating whether familiarity does increase the chance of choice when exposed to conceptual fluency in terms of a prime.

4.5 Measurement of Dependent Variable(s)

Measurement of the dependent variable (choice of gift card) will be done by registering how many in the particular cells that chose iTunes over Spotify and in which cell(s) the choice of iTunes is the largest. Thus, conclusions can be drawn on whether some of the primes, if any, actually influence the propensity of choosing iTunes (an Apple product).

4.6 Manipulation Checks

In order to test the manipulation; the different conceptual fluency levels, a pretest will be conducted. The pretest will be run on a sample of respondents that will not participate in the main experiment. We want to test whether there is a connection

between the different primes and apples, and if the levels (high, medium and low) of conceptual fluency in regards to the primes are correct. The respondents will be asked to make an associative map on apples. In this way we are able to reveal whether or not the different primes are connected to apples in the mind of the consumer. We are also able to reveal which of the primes that first comes to mind when thinking of apples, thus testing the different levels of conceptual fluency.

4.7 Statistical Analyses

This research consists of two hypotheses, one testing the main effect between dependent- and independent variables, and the other testing the interaction effect between the moderator (familiarity) and the prime (pear) on the dependent variable. In terms of the first hypothesis; testing the effect of the prime pear on choice behavior, logistic regression should be conducted, as we want to predict which of two possible events are going to happen (choice of iTunes or Spotify) given some other information. There are one categorical dependent variable (choosing iTunes) which can be coded as 0=no and 1=yes. Moreover, there are four levels of primes; pears, oranges, broccoli and nothing at all - each representing degree of conceptual fluency - high, medium, low, and control, respectively. These need to be coded into three dummy variables as they are categorical (see Malhotra 2010, 621). Logistic regression allows us to assess how well the set of predictor variables actually predict or explain the categorical dependent variable (Pallant 2007). We will therefore discover which of the primes influences the respondent's probability of choosing iTunes the most.

In order to test the second hypothesis and the interaction effect, we will also run a logistic regression, but include familiarity and the interaction between the prime (pear) and familiarity in the regression, in addition to the prime pear itself. Familiarity will be recoded into one dummy variable where 1= High, 0 = Low, while the prime will be recoded as 1=pear, 0= no pear.

5.0 Conclusion

We expect that priming with pears will, through high conceptual fluency, lead to

more respondents choosing iTunes compared to Spotify, seeing that pears are more directly connected with apples in the mind of the consumer. Moreover, we expect primes of oranges and broccoli to have a smaller effect on choice as a consequence of lower conceptual fluency. In terms of familiarity, we expect that people with high familiarity towards the Apple brand will be more influenced by the primes seeing that they already know of Apples and can unconsciously make the connection between the fruits and Apple. Figure 3 shows the forecasted choice likelihood.

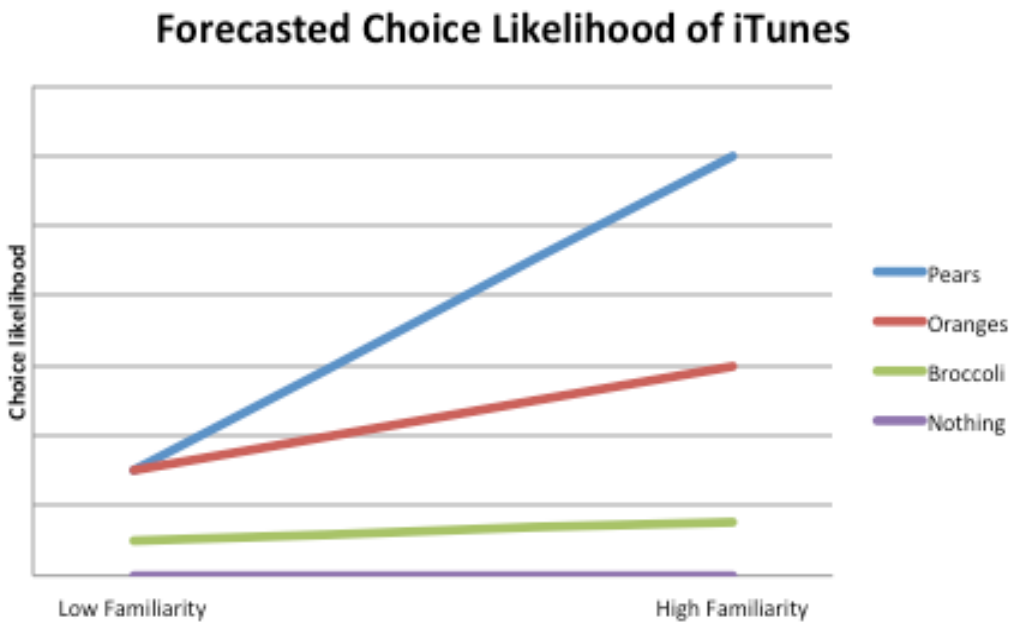

Figure 3: Forecasted Choice Likelihood of iTunes

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