Making Consumers Switch: Not as Easy as It Seems?

The Effects of Brand Preference and Resistance to Advertising on Consumers' Attitudes and
Behaviour

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Abstract

Does advertising merely reinforce existing brand preferences or can consumers still be triggered to switch brands? This study examined if brand preference explains the use of resistance strategies while watching a television commercial, and if the use of resistance strategies mediates the effects of brand preference on consumers' attitudes and behaviour (i.e., product attitude, advertisement attitude, and purchase intention). This made it the first research to study brand preference as the possible antecedent of resistance strategies, in combination with its effects on consumers. According to existing literature, consumers dislike information that opposes their existing position or that threatens their freedom. Thus, when people are confronted with an advertisement and this information is not in line with their beliefs, it will elicit more resistance. To resist attitudinal change and to protect their freedom, consumers can use cognitive resistance strategies (i.e., counterarguing) and affective resistance strategies (i.e., negative affect) to not be persuaded by advertisements. It was hypothesised that consumers who have a stronger preference for a brand use less resistance strategies, because the advertisement is congruent to their beliefs. On the other hand, more resistance will be evoked when consumers with weaker preferences for the brand are exposed to the ad. Subsequently, this cognitive and affective resistance negatively affects their product attitude, advertisement attitude, and purchase intention. To test these hypotheses, an online survey was distributed among an existing online panel, containing a television commercial of a toothpaste brand. Among others, questions were asked about respondents' preference for that brand (prior to exposure to the ad), their attitudes towards the product and the advertisement, and their intentions to purchase that product. The total sample size was 265. The results found direct positive effects of brand preference on consumers' attitudes and behaviour. However, no effects of brand preference on the use of resistance strategies were found. Nonetheless, resistance strategies did negatively impact how consumers evaluated the product and the advertisement. Moreover, resistance strategies indirectly affected purchase intentions via advertisement attitude and product attitude. Thus, these findings do suggest the importance of both prior brand preferences and the use of resistance strategies on consumers' attitudes and behaviour. Future research could further explore under which circumstances brand preference does influence the use of resistance strategies. To conclude, it could still be argued that advertising efforts merely reinforce existing preferences rather than stimulate consumers to switch brands.

Table of Contents

1. Introduction

Does branding really matter? This question is posed in many marketing studies (e.g., De Wulf, Odekerken-Schröder, Goedertier, & Van Ossel, 2005; Kühn & Gallinat, 2013; Luis Méndez, Oubiña & Rubio, 2011). Very illustrative is, for instance, previous research that found that consumers cannot distinguish between the taste of premium cola brands and weaker (private label) cola brands, but do base their preference on the perceived brand equity (De Wulf et al., 2005; Luis Méndez, Oubiña & Rubio, 2011). In research by Kühn and Gallinat (2013), all participants tasted the same cola, but were told to be drinking either Coca-Cola, Pepsi Cola, or another weaker brand. The results showed that participants liked the so-called Coca-Cola best, pointing out that brand equity (i.e., the added value of a brand name; Chang & Liu, 2009) can influence how people value certain products. Moreover, this implies that consumers form brand associations, which they link to the product itself (Kühn & Gallinat, 2013).

For advertisers, this would mean that creating a strong brand preference leads to positive brand associations, which then improves product evaluations. This relates to what was suggested by Tellis in 1988: Advertising would, in the first place, have an effect on the reinforcement of an existing brand preference. Moreover, Tellis (1988) argued that advertising would only have a small effect on new customers. In other words, advertising would reinforce existing brand preferences rather than trigger consumers to switch brands. Although this paper was published over 30 years ago, the argument is still very interesting today, as academics and advertisers are still keen to know how existing and new customers make decisions and can be persuaded. The current research, therefore, aims to find out how an existing brand preference plays a role when consumers are exposed to advertising. Thus, brand preference is a key concept in this research and can be defined as "the extent to which the customer favours the designated service provided by his or her present company, in comparison to the designated service provided by other companies in his or her consideration set" (Hellier, Geursen, Carr, & Rickard, 2003, p. 1765). In other words, it is "the bias a customer holds toward a particular brand" (Chang & Liu, 2009, p. 1690). Advertisements consumers are confronted with, are thus designed to communicate product benefits, such as social, emotional, or functional attributes (Fransen, Verlegh, Kirmani, & Smit, 2015). Such persuasion attempts are taking place on a daily basis and play an important role in people's decision making processes (Fransen, Smit, & Verlegh, 2015).

Although advertising might seem to bring many advantages in a business perspective, the attempt to persuade consumers often generates limited results, because consumers themselves are generally not very willing to be influenced (Fransen et al., 2015a; Fransen et al., 2015b; Knowles & Linn, 2004; Jacks & Cameron, 2003; Ringold, 2002). This resistance to being influenced is evoked by a feeling of losing one's freedom of choice and being misled (Brehm & Brehm, 1981; Fransen et al., 2015a). According to Knowles and Linn (2004), the bottom line of resistance is that it is "a reaction against change" (p. 4). Consumers often feel sceptic or distrusting about commercial content and

subsequently response defensively (Fransen et al., 2015b). In this case, consumers have a true motivation to resist such persuasions (Fransen et al., 2015a). When people have an understanding of the persuasive nature of the advertisement they are exposed to, they may activate – to a certain degree – their *persuasion knowledge* (Friestad & Wright, 1994). According to the persuasion knowledge model, consumers have a personal set of interrelated beliefs and knowledge about the tactics used in persuasion attempts by marketeers and advertisers. This knowledge helps consumers to interpret advertisements and to adaptively respond during persuasion episodes.

If consumers activate this persuasion knowledge and when they are motivated to resist such persuasions, they can use what are called *resistance strategies* (Fransen et al., 2015a; Fransen et al., 2015b; Jacks & Cameron, 2003; Meyers-Levy & Malaviya, 1999). In other words, people use certain strategies in order to decrease the persuasive effect of the message (e.g., to change their attitude or behaviour) and maintain their existing position (Fransen et al., 2015a). Examples of such resistance strategies are avoidance, self-empowerment, counterarguing, biased processing, experiential or affective responding, and source derogation (Fransen et al., 2015a; Fransen et al., 2015b; Jacks & Cameron, 2003; Meyers-Levy & Malaviya, 1999). In this research, a distinction is made between cognitive resistance strategies and affective resistance strategies, which is in line with prior research (Dillard & Shen, 2005; Rains, 2013; Van Reijmersdal et al., 2016). More specifically, cognitive resistance strategies are operationalised as the extent to which people use counterarguments to oppose the persuasive message (i.e., 'counterarguing') and affective resistance strategies as the extent to which people experience negative feelings such as irritation or anger (i.e., 'negative affect') (Dillard & Shen, 2005; Rains, 2013; Van Reijmersdal et al., 2016).

Prior research has demonstrated that when consumers feel manipulated by television advertisements, this will negatively affect their attitude towards the advertisement, their attitude towards the brand, and their purchase intentions (Campbell, 1995). However, contemporary insights into the process that underlies these effects are scarce. Previous research primarily focused on the effects of utilizing resistance strategies (e.g., Jacks & Cameron, 2003) or only provided a theoretical framework lacking empirical evidence (e.g., Meyers-Levy & Malaviya, 1999), without specifically testing brand preference as a possible antecedent of the use of these strategies. Therefore, this study combines researching the effect of brand preference on the use of resisting strategies, while at the same time testing its outcomes on consumers, making this a truly innovative approach. Thus, this study researches the existing knowledge gap of how brand preference might be an explaining factor in the use of resistance strategies, and to what extent resistance strategies could mediate effects on consumers' attitudes and behaviour. This approach makes the current study scientifically relevant, as well as new and insightful for advertising researchers. Specifically, this research studies the effects of brand preference on product attitude (i.e., the overall evaluation of the product; Lee, Park, & Han, 2008), advertisement attitude (i.e., consumer evaluations of the advertisement as a whole; Mitchell & Olson, 1981), and purchase intentions (i.e., a customer's plan to buy a specific brand; Chang & Liu,

2009). Then, this study examines to what extent brand preference relates to the use of resistance strategies, which has not been researched to date, and if those, in turn, affect product attitude, advertisement attitude, and purchase intention. In short, this research aims to find out if these resistance strategies mediate the effect of brand preference on consumers' attitudes and behaviour. Hence, the research question is formulated as follows:

> *RQ*: To what extent does brand preference predict the use of cognitive and affective strategies to resist persuasion when seeing a television commercial of the same brand, and to what extent do these resistance strategies subsequently affect the product attitude, advertisement attitude, and purchase intention of that brand?

The results of this research could help marketeers and communication practitioners overcoming the possible wall in their advertising campaigns: People not wanting to let in the information and be persuaded. Specifically, if a stronger brand preference would indeed lead to less resistance to advertisements and if this, in turn, would create more positive attitudes and higher purchase intentions, this would mean that companies should focus their advertisements on strengthening existing brand preferences, instead of merely trying to convert new, disinterested customers. This is because consumers who have an existing disinterest in the brand are likely to develop even more negative perceptions after seeing the ad, while consumers who do prefer that brand are likely to be more open to the ad and thus also form positive attitudes towards the product. Moreover, if disinterested consumers are indeed showing more resistance to traditional television advertising, marketeers could consider other forms of persuasion that are perceived as less obtrusive, such as product placement or influencer marketing. This last example can benefit business, because social influencers who promote a brand on social media are regarded as more trustworthy, enhancing the brand's reputation (De Veirman, Cauberghe, & Hudders, 2017). This way, a brand can indirectly advertise their products through recommendations of admired people. To conclude, this research contributes to the debate if advertisers should indeed shift their focus from new customer conversions to their existing customer base and new forms of advertising.

The next chapter will provide an overview of contemporary research on brand preference and the use of resistance strategies, as well as several more established theories on persuasion. The distinction between cognitive and affective resistance strategies will be further elaborated and the possible effects on product attitude, advertisement attitude, and purchase intentions will be explored. Moreover, the hypothesised mediating role of the use of resistance strategies is explained. Chapter 3 will then justify the choice for a survey design to test if resistance strategies indeed mediate the effect of brand preference on consumers' attitudes and purchase intentions. This chapter will also give more background to the research design, procedures, and sample. Then, chapter 4 will test the hypothesised relationships between brand preference, resistance strategies, and consumers' attitudes and behaviour, which is followed by an interpretation of the results. Lastly, chapter 5 will draw a final conclusion and

answers the question if brand preference indeed predicts the use of resistance strategies, and if these strategies subsequently affect consumers' attitudes and behaviour. Finally, this last chapter discusses possible limitations and suggestions for future research, as well as the implications on the scientific and societal debate around advertising resistance.

2. Theoretical Framework

As discussed in the introduction, limited research studied the antecedents of the use of resistance strategies in combination with its effects. Therefore, this research aims to examine if resistance strategies mediate the effects of brand preference on consumers' attitudes and behaviour. Thus, this study combines measuring the effects of the use of resistance strategies on product attitude, advertisement attitude, and purchase intention, with the possibly explanatory factor of brand preference. To analyse this model (see Figure 2), this research tests four directions of effects: the direct effects of brand preference on consumers' attitudes and behaviour (H1) and the indirect effects of brand preference on consumers' attitudes and behaviour, mediated by the use of resistance strategies (H2 to H4).

The theoretical framework is twofold. First, it explains the relevant models and theories related to brand preference, resisting persuasion, and consumers' attitudes and behaviour, which will help answer the research question. Specifically, it starts with conceptualising brand preference, after which the process of dissonant information is described. Then, persuasion knowledge and resistance to change is explained, leading to the use of resistance strategies and the distinction in this research between cognitive and affective resistance strategies. Finally, product attitude, advertisement attitude, and purchase intention are conceptualised and are grouped together as consumers' attitudes and behaviour.

In the second part of the theoretical framework, the relationships between the research concepts are described, leading to the four hypotheses. Thus, firstly, the hypothesised effects of brand preference on product attitude, advertisement attitude, and purchase intention are described. Then, the relationship between brand preference and the use of cognitive and affective resistance strategies will be explained. Lastly, the hypothesised effects of the use of cognitive resistance strategies on product attitude, advertisement attitude, and purchase intention are illustrated, followed by the effects of the use of affective resistance strategies on these three components.
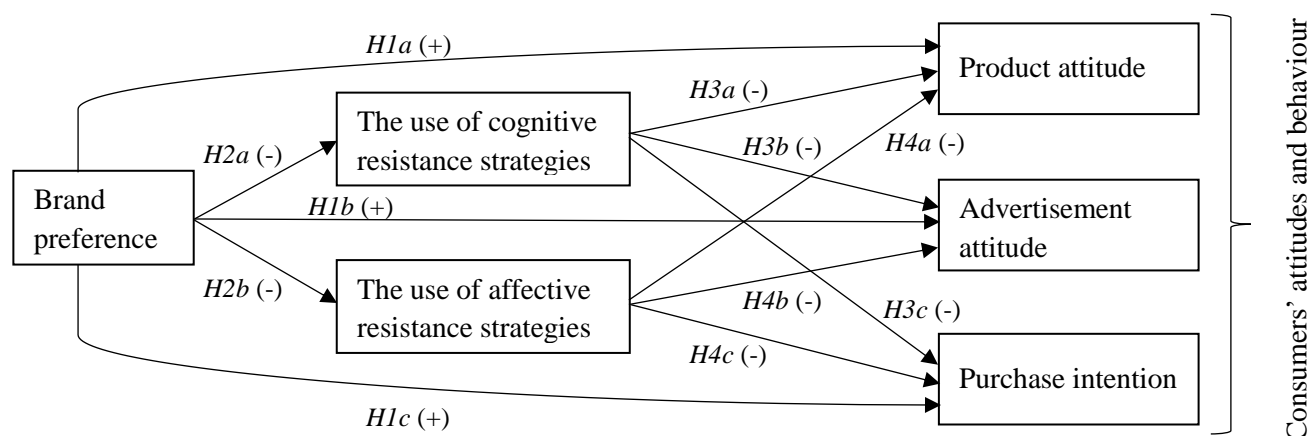

Figure 2. Conceptual Model and Hypotheses.

2.1. Brand Preference

The cola anecdote presented in the introduction demonstrates how powerful a brand name can be. It illustrates that brand equity affects consumers' perception of brand attributes, and in the end, of the product itself. Thus, creating a stronger brand preference can lead to more positive brand associations. To elucidate brand preference, Hellier, Geursen, Carr, and Rickard (2003) defined the concept as "the extent to which the customer favours the designated service provided by his or her present company, in comparison to the designated service provided by other companies in his or her consideration set" (p. 1765). In other words, consumers compare the attributes of the different alternatives they have available in their consideration set. Therefore, commercials are often designed to convey product attributes, such as social, emotional, and functional aspects (Fransen, Verlegh, Kirmani, & Smit, 2015).

This does not imply, however, that every choice a consumer makes about a brand, is a contemplated and conscious decision. In fact, this is often an unconscious process where brand preference is "the bias a customer holds toward a particular brand" (Chang & Liu, 2009, p. 1690). This bias could simply be, for example, the familiarity with the brand. The ease of recall of information about a brand can determine whether or not people will feel familiar with a brand (Chira, Adams, & Thornton, 2008). Consumers will choose for the brand or product that they feel most comfortable with. That is, the brand of which they can retrieve most information the fastest. In the end, this information will influence their decision-making process. Meyers-Levy and Malaviya (1999) also argued that a familiar feeling with the brand could be attributed to a presumed top-market position of that brand, causing a consumer to form a preference for this particular brand. In the case of the cola example, people who are unfamiliar with the weaker brands, might automatically gravitate to the familiar Coca-Cola brand, simply because they can retrieve most information about this brand. This theory has been confirmed by, for example, Chaudhuri (2002), who found that brand familiarity has a positive effect on brand reputation.

Numerous other studies have tried to find out how brand preference can be explained, as well as how it can determine a brand's performance (e.g., Chang & Liu, 2009; Hellier, Geursen, Carr, & Rickard, 2003; Jalilvand, Pool, Nasrolahi Vosta, & Kazemi, 2016). These studies all found that brand equity, that is, the added value of a brand name (Chang & Liu, 2009), positively influences brand preference. Again thinking of the cola example where brand preference determined consumers' perceived brand attributes, this could indicate a certain reciprocity between brand equity and brand preference. Moreover, research revealed that brand preference has a positive influence on, for example, purchase intentions (Chang & Liu, 2009; Hellier et al., 2003; Jalilvand et al., 2016) and word-of-mouth (Jalilvand et al., 2016). However, it must be noted that all three studies focused on service products, such as insurances (Hellier et al., 2003) and restaurants (Jalilvand et al., 2016), while the current study focuses on tangible goods.

In order to explain how brand preference could affect how people process advertisements and how this, in turn, has consequences for people's attitudes and shopping behaviour, the next part describes the cognitive dissonance theory and other models that describe the mechanisms of processing dissonant information.

2.2. Processing Dissonant Information

According to the cognitive dissonance theory, people generally strive to internal consistency (Festinger, 1962). When inconsistency or dissonance occurs, they will feel uncomfortable and frustrated. Therefore, people will try to reduce this undesirable feeling by avoiding situations and information that conflict their own position (Festinger, 1962). Within the cognitive dissonance theory, cognition refers to "the things a person knows about himself, about his behaviour, and about his surroundings" (Festinger, 1962, p. 9). People's opinions and attitudes, which are part of their cognition, are internally clustered to remain consistent and achieve consonance. A well-known example of inconsistent cognitions is that smokers have sufficient knowledge about the health risks that result from their smoking, while at the same time, they believe that it gives them pleasure and will not harm them (Bawa & Kansal, 2008). They use this argument to defend their smoking behaviour and thus, to reduce the uncomfortable feeling. The cognitive dissonance theory could also be applied to a branding experiment. If people who greatly value the Coca-Cola brand will drink a weaker cola brand they do not appreciate, but are told to be drinking Coca-Cola, they are likely to respond positively to the taste. However, if they would be told it is a weaker brand, they will probably negatively evaluate the taste, because the idea that an – in their eyes – brand of pour quality tastes good, is dissonant to their beliefs. Thus, they will reject this idea and favour the Coca-Cola brand.

Although the cognitive dissonance theory originates from the fifties, it is still very relevant today and has often been researched in relation to marketing (e.g., Bawa & Kansal, 2008; Kim, 2011). As the state of cognitive dissonance is perceived as uncomfortable by a consumer, businesses benefit from reducing this state (Bawa & Kansal, 2008). Consequently, reduced dissonance enhances positive attitudes and repurchase intentions. For instance, Kim (2011) found that word-of-mouth messages that are not consistent with consumers' prior beliefs lead to cognitive dissonance, which has a strong negative impact on their repurchase intentions, even for satisfied customers. However, this research focused on the service industry. Therefore, these results could be different when tested for goods, as in the current research. To reduce this unwanted cognitive dissonance amongst consumers when choosing a product, companies could, for instance, praise the consumers' choice, offer warranties, and increase the attractiveness of the preferred alternative and decrease the attractiveness of the non-preferred alternative (Bawa & Kansal, 2008).

Moreover, if consumers are not familiar with the message or product, but are accidentally or forced exposed to this new, dissonant information, they are likely to try to avoid it (Bawa & Kansal, 2008). This means that advertisements or products that are familiar are more likely to be accepted than

ads or products that are new or dissonant to the consumer (Chira, Adams, & Thornton, 2008; Machleit & Wilson, 1988), which is also related to familiarity bias, as previously explained. Chira, Adams, and Thornton (2008) also speak of a confirmation bias, meaning that people who are exposed to information, are likely to interpret that information in a way that coincides with their preconceptions. At the same time, ideas that contradict their existing beliefs will be avoided. In their research, Chira, Adams, and Thornton (2008) focus on behavioural finance, and thus give an example in a marketing context: If a consumer has a preconceived feeling about a specific brand, he or she will try to select only that information that is consonant with their existing beliefs. Thus, anything a consumer wants to belief will be accentuated, while other information will be ignored.

As explained, the cognitive dissonance theory assumes that people try to avoid or reject information that is incongruent to their own beliefs or attitudes. Research on persuasion processes has also shown that people with high elaboration, involvement, or personal relevance are more resistant to attempts of attitudinal change (Jacks & Cameron, 2003; Knowles & Linn, 2004; Tormala & Petty, 2004a; Tormala & Petty, 2004b; Wegener, Petty, Smoak, & Fabrigar, 2004). Wegener, Petty, Smoak, and Fabrigar (2004) explain this mechanism with the Elaboration Likelihood Model (ELM). The ELM is a widely embraced model that is part of the dual-process theories (Meyers-Levy & Malaviya, 1999). These theories assume that people have two routes that lead to persuasion: the central route (extensive and critical elaboration) and the peripherical route (intuitive and automatic judgments). Which route people use during a persuasion episode depends on several factors, such as how much effort someone can bring up to resist the change or how relevant the message is (Meyers-Levy & Malaviya, 1999). People with high elaboration attitudes have cognitive and affective structures that are more strongly interlinked than the structures of people with low elaboration. The strong, interconnected structures of the high elaboration individuals are also more closely linked to related attitudes and behaviour (Wegener et al., 2004). Hence, the information that these developed structures provide, can help people defend their attitudes when a persuasion attempt arises. Moreover, this motivates people to resist future attitudinal persuasion, because more information that supports cognitive consistency can be retrieved (Wegener et al., 2004). Thus, here again, cognitive dissonance plays a role.

To conclude, people are generally not comfortable with dissonance between their existing attitudes and the messages they are exposed to. Therefore, they will try to avoid or reject such incongruent information. When this information is personally important or if individuals have high elaboration, attitudinal change will be harder to accomplish. Prior attitudes and beliefs are likely to be reinforced when such messages are presented. In relation to marketing and advertising, this would mean that brands or products that are already positively valued, are more likely to be accepted and liked by the consumer when they are exposed to this brand or product.

2.3. Resistance Strategies

2.3.1. Persuasion Knowledge and Resistance to Change

As briefly discussed in the introduction, resistance can be described as "a reaction against change" (Knowles & Linn, 2004, p. 4). The term can be operationalised in two ways: It can be defined as an outcome (i.e., a person has or has not been changed by the persuasive pressure) or as a motivational state (i.e., the state in which a person is motivated to oppose changes) (Knowles & Linn, 2004). These two definitions are not the same, but they are related. As this study researches the use of resistance strategies *while* watching a television commercial, this is best to describe as a *state* in which people try to resist the advertising while seeing it. Many researchers have tried to find out how this motivational state can affect, for example, effects of persuasive messages (e.g., Boerman, Van Reijmersdal, & Neijens, 2012; Lewinski, Fransen, & Tan, 2016; Tormala & Petty, 2004; Van Reijmersdal et al., 2016). These effects – in this research the product attitudes, ad attitudes, and purchase intentions – are the *outcomes* of the persuasion attempt and the resistance during that episode.

This motivational state of persuasion resistance is also linked to another mechanism that many of these studies researched: persuasion knowledge. That is, consumers' personal set of interrelated beliefs and knowledge about the tactics used in persuasion attempts by marketeers and advertisers (Friestad & Wright, 1994). According to the persuasion knowledge model, this knowledge helps consumers to better understand how advertising is trying to influence them. Moreover, with this knowledge, consumers are better equipped to adaptively respond to persuasion attempts and to resist advertising that is not in line with their own goals. Persuasion knowledge can also influence consumers' attitudes towards the products that are advertised and the marketeers or sponsors themselves (Friestad & Wright, 1994). Knowledge about persuasion attempts can be used in two ways. First, people can be open to the information in the commercial, for example when it is personally relevant or when they have an interest in the message. People are thus aware of the persuasive attempt and choose to be persuaded. However, the more likely response is to resist the persuasion. This response is expected, as people generally do not want to be persuaded (Fransen, Smit, & Verlegh, 2015; Ringold, 2002; Van Reijmersdal et al., 2016). This is because the persuasion could threaten their freedom of choice and evoke feelings of being manipulated, which they will try to avoid (Brehm & Brehm, 1981; Fransen et al., 2015a). Moreover, people are naturally motived to retain consistency and therefore try to stay away from change (Fransen et al., 2015a). Hence, reluctance to change is motivated by the need to stay the same or remain the current situation. When consumers both activate their persuasion knowledge and have a motivation to resist persuasion attempts, they can use *resistance strategies* to try to not be influenced (Fransen et al., 2015a; Fransen, Verlegh, Kirmani, & Smit, 2015; Jacks & Cameron, 2003). In the current research, resistance strategies are conceptualised as "strategies to actively resist persuasion" or "the different strategies that individuals apply to resist persuasion", as proposed by Fransen, Smit, and Verlegh (2015). Thus, consumers can use different

strategies in order to decrease the persuasive effect of the advertisement (e.g., to change their attitude or behaviour) and maintain their existing position (Fransen et al., 2015a).

2.3.2. Cognitive and Affective Resistance Strategies

These strategies to resist persuasion have been divided into different categories by different researchers. Moreover, it has been researched in the context of different schools, such as communication science, business administration or behavioural economics, and psychology (Fransen, Smit, & Verlegh, 2015). A general theoretical approach is characterising resistance strategies into cognitive and affective components (Knowles & Linn, 2004). Here, the cognitive component places emphasis on the rational evaluations and the affective component on the emotional elements. Similarly, Hass and Grady (1975) distinguished two different levels: the cognitive level (counterargument model) and the motivational level (reactance theory). The cognitive level assumes that people produce counterarguments to protect their attitudinal freedom. The motivational level, on the other hand, describes a psychological reactance to the persuasive messages, which causes arousal and the feeling of a threat to one's attitudinal freedom. The higher the perceived threat to someone's freedom, the more arousal is induced (Hass & Grady, 1975). Hass and Grady (1975) stress how these two levels should be seen as complementary instead of mutually exclusive. This means that both cognitive and motivational activities could be performed simultaneously and could be increasing each other. Although this research is not very contemporary, this distinction is still supported today (e.g., Dillard & Shen, 2005; Miceli, Rosis, & Poggi, 2006; Rains, 2013).

A similar distinction in resistance is made in the Elaboration Likelihood Model (ELM) and dual-process theories that were named earlier. Here, it is assumed that persuasion is accomplished through the central route or the peripherical route (Meyers-Levy & Malaviya, 1999; Wegener, Petty, Smoak, & Fabrigar, 2004). Thus, when people are exposed to a commercial or other commercial content, they use a deliberate, systematic approach (or strategy) to form attitudes and judgments or they use a more automatic, heuristic approach (Meyers-Levy & Malaviya, 1999). Moreover, judgments and attitudes are not necessarily based on thoughts, but also on emotions or feelings that are arise when being confronted with an advertisement by the mere act of engaging in processing (Meyers-Levy & Malaviya, 1999; Strack, 1992). An example of such a sensation could be a warm or familiar feeling towards a brand or advertisement. This is caused by the ease and speed of processing the information in the commercial (Chira, Adams, & Thornton, 2008; Meyers-Levy & Malaviya, 1999), because when the cognitive effort is lower, this subsequently leads to a more comfortable and familiar feeling. Thus, attitudes can be affected by the emotions or sensations that people experience while processing information.

The abovenamed theories on reactance and resistance strategies, for example the counterargument and reactance models (Hass & Grady, 1975) and ELM (Wegener et al., 2004), are still very theoretical. The models do not specifically focus on advertising and are not always strongly

empirically supported. Other researchers, however, did take on a more practical approach to empirically test and categorise resistance strategies (e.g., Fransen, Smit, & Verlegh, 2015; Fransen, Verlegh, Kirmani, & Smit, 2015; Jacks & Cameron, 2003). Moreover, this research was conducted in the specific context of advertising. Fransen et al. (2015a), for example, describe how people can use cognitive avoidance strategies (e.g., not paying attention to an ad) or empowerment strategies (i.e., people reinforce or defend their existing attitudes and try to refute the opposing attitude).

Furthermore, Fransen et al. (2015a) argue that consumers can use biased processing strategies when they are exposed to an ad. Here, people will try to make a message match one's existing attitudes or to diminish the message's relevance. Firstly, people can attach more weight to the attributes of a message that are consonant to their own attitude and less weight to the aspects of that message that are not congruent to their beliefs (Ahluwalia, 2000; Fransen et al., 2015a). Secondly, negative attributes of brands, products, or messages that are incongruent to the current positive attitude, can be isolated from the overall attitude (Ahluwalia, 2000; Fransen et al., 2015a). In other words, the impact of this negative information about one attribute will be minimised so the overall evaluation will remain positive. For example, if a customer of Coca-Cola hears that the sugar level in cola of that particular brand is much higher than in other brands, this person will try to diminish this argument and only adjusts his or her opinion about that single attribute, while remaining positive about the brand as a whole. Customers who have less favourable attitudes to Coca-Cola will, on the other hand, adjust their attitudes about the entire brand.

In addition, consumers can use contesting strategies, where they will try to counter the advertisements' message, source, or persuasive tactics (Fransen et al., 2015b). Contesting the persuasive message or content itself, is often called 'counterarguing' (Fransen et al., 2015a; Fransen et al., 2015b; Jacks & Cameron, 2003). It is a cognitive process that involves generating arguments against the message that people are exposed to, while refuting the arguments that are presented to them (Fransen et al., 2015b). This way, attitudes that do not agree with one's own are countered. Previous research found that the activation of persuasion knowledge also increases the use of counterarguments (Van Reijmersdal et al., 2016). Moreover, research by Jacks and Cameron (2003) tested seven different resistance strategies (i.e., attitude bolstering, counterarguing, social validation, assertions of confidence, selective exposure, negative affect, and source derogation) and found that out of these, counterarguing was actually the most effective means to resist persuasion.

Although the abovenamed research is quite elaborate, it does not take into account the affective mechanisms of resistance to persuasion attempts. Also, the affective element of resistance has been studied less than the cognitive element. However, the aforementioned theories, like the ELM, do suggest the importance of the affective system during persuasion episodes (Hass & Grady, 1975; Knowles & Linn, 2004; Meyers-Levy & Malaviya, 1999; Miceli, Rosis, & Poggi, 2006; Strack, 1992; Wegener et al., 2004). Moreover, Jacks and Cameron (2003), found that not only counterarguing belongs to the most prevalent responses, but negative affect as well. That is, "responding to the

persuasion attempt by getting angry, irritated, or upset" (Jacks & Cameron, 2003, p. 146). Thus, consumers can use such negative emotions to protect themselves from being persuaded. Van Reijmersdal et al. (2016) similarly found that persuasion knowledge activates negative affect. In other words, when people were more aware of the advertising tactics used in the commercial content, they were more likely to try to affectively resist the persuasion.

To conclude, different research that specifically focused on the use of resistance strategies in relation to persuasion attempts, propose a distinction between cognitive and affective strategies to resist persuasion (Dillard & Shen, 2005; Rains, 2013; Van Reijmersdal et al., 2016). Specifically, these studies operationalised the use of cognitive resistance strategies as the extent to which people use counterarguments to oppose the persuasive message (i.e., 'counterarguing') and the use of affective resistance strategies as the extent to which people experience negative feelings such as irritation or anger (i.e., 'negative affect'). Thus, the current research operationalises these concepts accordingly.

2.4. Consumers' Attitudes and Behaviour

So far, brand preference and the processes of resisting persuasion have been described. Now product attitude, advertisement attitude, and purchase intention will be conceptualised. Together, these three components are named consumers' attitudes and behaviour. In contrast to the hierarchy of effects model (introduced by Lavidge & Steiner, 1961), the concepts will not be tested as subsequent elements, because so far, the impact of brand preference and resistance strategies on these three concepts has not been tested extensively. Therefore, no conclusions about the individual effects of brand preference and resistance strategies on product attitude, advertisement attitude, and purchase intention can be drawn. Thus, to test the distinct effects of brand preference and the use of resistance strategies on each of these three concepts, they are researched concurrently.

As mentioned before, brand preference can influence the linkages people make between a brand and a product. It can, therefore, affect consumers' brand evaluations and decision-making processes. Hence, this research examines consumer's product attitude, which can be defined as someone's overall evaluation of the product (Lee, Park, & Han, 2008). Petty, Cacioppo, and Schumann (1983) found that both informational (i.e., the argumentation) and other manipulations (e.g., credibility and likeability of certain elements) of an advertisement can affect product attitude, depending on the circumstances. More recently, Berens, Van Riel and Van Bruggen (2005) found that a corporate branding strategy can influence the relationship between corporate associations and product attitudes. Therefore, product attitude is a relevant and interesting concept for this research. Product attitude is the first research concept in the model, as it can be seen as the most important *attitudinal* outcome of a commercial that advertisers are aiming for. Because it is seen as an outcome of the commercial, the current study measures product attitude after exposure to the advertisement.

Mitchell and Olson (1981) were one of the first to argue that advertising researchers should not only take notice of people's product attitudes, but also of people's attitudes towards an advertisement itself. That is, a "person's evaluation of the advertisement as a whole" (Mitchell & Olson, 1981, p. 325). Mitchell (1986) explains that advertisement attitude is a segregated construct and not a surrogate for product attribute beliefs. Other researchers have also investigated the role of advertisement attitude as a dependent variable of, for example, affective responses to an ad (Derbaix, 1995; Homer & Yoon, 1992). However, although the role of advertisement attitude is often discussed, more recent studies about what influences people's advertisement attitudes are scarce (e.g., Hassan, Fatima, Akram, Abbas, & Hasnain, 2013; Kim, Baek, & Choi, 2012). Therefore, the current study will also include advertisement attitude in its analysis.

Regarding consumers' attitudes and behaviour, this study will lastly research people's purchase intentions. Purchase intention can be described as "the individual's judgement about buying a designated service from the same company, taking into account his or her current situation and likely circumstances" (Hellier, Geursen, Carr, & Rickard, 2003, p. 1764). This relates to these researchers' definition of brand preference, by assuming consumers make a conscious decision about their purchase by weighing the agreements between a company's attributes and their personal preferences. Spears and Singh (2004) define purchase intentions as "an individual's conscious plan to make an effort to purchase a brand" (p. 56), which is similar to Chang and Liu's (2009) definition: "a customer's plan to buy a specific brand" (p. 1690). Here again, purchase attention is presented as an elaborate decision from the consumer, although these last two definitions are more action-oriented than the definition of Hellier et al. (2003). Spears and Singh (2004) also explain that purchase intentions are different from attitudes. Whereas purchase intentions are personal motivations to carry out conscious behaviour regarding a brand, attitudes are simply "summary evaluations". Therefore, this study will make a distinction between people's attitudes and their actual purchase intentions. However, the concepts are closely related, as people's attitudes influence behaviour through behavioural intentions (Spears & Singh, 2004).

2.5. Effects of Brand Preference on Consumers' Attitudes and Behaviour (H1a, H1b, and H1c)

Again, the current study asks the following research question: To what extent does brand preference predict the use of cognitive and affective strategies to resist persuasion when seeing a television commercial of the same brand, and to what extent do these resistance strategies subsequently affect the product attitude, advertisement attitude, and purchase intention of that brand? As previously discussed, four main hypotheses (H1 to H4) will be tested to answer this question. The rationale provided in the previous parts aimed to explain the underlying processes of how people process information that is, or is not, congruent to their existing attitudes and beliefs, and what effect

this has on consumers. The more specific relations between the research concepts will now be described. Moreover, the more concrete findings in relation to the hypotheses will be discussed.

To start, research by Machleit and Wilson (1988) found a strong relationship between people's prior brand attitudes (measured two weeks in advance of the experiment) and their attitudes towards that same brand directly after seeing an advertisement of that brand. In other words, a higher (more positive) brand attitude before exposure to the ad was related to a higher brand attitude after exposure to the ad. More recently, Lee (2010) also found that people with a positive prior brand attitude had a more positive brand attitude after seeing an advertisement of that brand, compared to people with negative or neutral prior brand attitudes. Therefore, it is also expected that a prior preference for a brand is related to a more positive attitude towards an advertised product of that brand:

H1a: The stronger the preference for the brand in the television commercial, the more positive the product attitude of the same brand will be after seeing the television commercial of that brand.

Interestingly, research by Siddarth and Chattopdahyay (1998) found that the more products people had purchased of the advertised product category, the less likely they were to switch channels during television commercials of that product category. This indicates that people who value the advertised concept or item, will also have a more positive attitude towards the advertisement itself. This was confirmed by a more recent experimental study that found that a positive prior attitude towards a brand is related to a higher advertisement attitude after seeing the commercial (Lee, 2010). Therefore, the following is hypothesised:

H1b: The stronger the preference for the brand in the television commercial, the more positive the advertisement attitude of the same brand will be after seeing the television commercial of that brand.

Previous research also found that brand loyalty and brand affect were positively related to purchase loyalty (Chaudhuri & Holbrook, 2001; Pritchard, Havitz, & Howard, 1999). Moreover, there is substantial empirical evidence of a direct effect of brand preference on purchase intention (Chang & Liu, 2009; Hellier, Geursen, Carr, & Rickard, 2003; Tellis, 1988). First, according to Tellis (1988), predetermined preferences would be the strongest determinant of purchase behaviour, while advertising itself would only have a small effect. Although this research is slightly outdated, it is still a very interesting finding. Hellier et al. (2003) surveyed respondents about insurance companies and agree on the existence of a causal relationship between brand preference and people's willingness to repurchase from a specific supplier. Additionally, Chang and Liu (2009) find evidence of the impact of brand preference and purchase intentions in the telecom industry. Because of this substantial evidence, the following is hypothesised:

H1c: The stronger the preference for the brand in the television commercial, the higher the purchase intention of the same brand will be after seeing the television commercial of that brand.

2.6. Effects of Brand Preference on Resistance Strategies (H2a and H2b)

As previously discussed, high elaboration and personal importance can lead to a stronger certainty of an existing attitude (Tormala & Petty, 2004; Wegener, Petty, Smoak, & Fabrigar, 2004; Jacks & Cameron, 2003). Pritchard, Havitz, and Howard (1999) also suggest that consumers who identify with the values of a certain brand and who are more committed to their preference for that brand, will also show more resistance to changes to that preference. Moreover, when people are confronted with a threat to their freedom – like during an advertisement – they are likely to contest the message (Brehm & Brehm, 1981; Fransen, Verlegh, Kirmani, & Smit, 2015; Silvia, 2006). Lee (2010) also suggests that people with more positive attitudes towards a brand could have lower levels of resistance to the persuasive message of that same brand, because it coincides with their initial attitude. On the other hand, people with a more negative initial attitude to that brand will try to find counterarguments against the promoted message because it is not congruent to their existing opinion (Lee, 2010). Hence, the following is hypothesised:

H2a: The stronger the preference for the brand in the television commercial, the less a respondent uses cognitive resistance strategies (i.e., 'counterarguing') during exposure to the television commercial of that brand.

Thus, watching an advertisement from a brand that people are committed to or that does match the existing attitude, will decrease resistance (Lee, 2010; Pritchard, Havitz, & Howard, 1999). Conversely, it is expected that being confronted with dissonant persuasive messages will elicit a sense of emotional discomfort (Festinger, 1962). These negative feelings regarding an advertisement could express in getting angry, irritated, or emotionally upset (Dillard & Shen, 2005; Jacks & Cameron, 2003; Rains, 2013), especially when the attributes are personally important. Therefore, it is expected that when people are confronted with persuasive messages from a brand they are not committed to, this will not only elicit more cognitive resistance, but also more affective resistance. This effect is also expected in the opposite direction: When people are confronted with a persuasive message they *are* committed to, this will reduce affective resistance (i.e., negative affect), as formulated in the next hypothesis:

H2b: The stronger the preference for the brand in the television commercial, the less a respondent uses affective resistance strategies (i.e., 'negative affect') during exposure to the television commercial of that brand.

2.7. Effects of Cognitive Resistance Strategies on Consumers' Attitudes and Behaviour (H3a, H3b, and H3c)

As discussed, people naturally do not want to be changed and see advertisements as a threat to their freedom (Brehm & Brehm, 1981; Fransen et al., 2015b; Silvia, 2006). When this threat occurs, people are likely to contest the message and produce counterarguments. In turn, this cognitive resistance can affect attitudes (Lee 2010; Silvia, 2006). Moreover, Van Reijmersdal et al. (2016) found that the use of cognitive resistance strategies has a negative effect on brand attitude. Terms such as brand attitude and product attitude are sometimes used interchangeably in the literature to describe customers' dispositions or evaluations of a product (Hellier, Geursen, Carr, & Rickard, 2003). Thus, it is expected that with the use of cognitive resistance strategies, product attitudes will also be negatively influenced:

> *H3a*: The more a respondent uses cognitive resistance strategies (i.e., 'counterarguing') during exposure to the television commercial, the more negative the product attitude of the same brand will be after seeing the television commercial of that brand.

Campbell (1995) found that when people have an impression of being manipulated by an ad, this has a negative effect on their attitudes towards the advertisement. It could thus be argued that people activate their persuasion knowledge when they recognize an ad as such, which then induces the use of cognitive resistance strategies, which ultimately negatively affects ad attitudes. Moreover, Kim, Baek, and Choi (2012) found that cognitive elaboration (i.e., the amount of thought that is produced) during exposure to an ad can lead to less favourable attitudes towards the advertisers and the advertisement itself. Also, as counterarguing involves refuting the presented arguments in the advertisement (Fransen et al., 2015a; Fransen et al., 2015b; Jacks & Cameron, 2003), it is expected that the advertisement itself will be refuted as well, resulting in negative attitudes. Thus, the following is hypothesised:

> *H3b*: The more a respondent uses cognitive resistance strategies (i.e., 'counterarguing') during exposure to the television commercial, the more negative the advertisement attitude of the same brand will be after seeing the television commercial of that brand.

Campbell (1995) also found that perceptions of the manipulative intent of advertisements negatively affected purchase intentions. As the activation of persuasion knowledge can lead to the use of cognitive resistance strategies (Van Reijmersdal et al., 2016), these strategies could subsequently lead to lower purchase intentions. Moreover, previous research found that cognitive dissonance has a negative impact on purchase intentions (Bawa & Kansal, 2008; Kim, 2011). It can also be argued that cognitive dissonance relates to the use of counterarguments, because people will try to remain their existing position by contesting information that opposes it. As products that are dissonant to the

consumer are likely to be avoided (Bawa & Kansal, 2008; Chira, Adams, & Thornton, 2008), it is also hypothesised that:

> *H3c*: The more a respondent uses cognitive resistance strategies (i.e., 'counterarguing') during exposure to the television commercial, the lower the purchase intention of the same brand will be after seeing the television commercial of that brand.

2.8. Effects of Affective Resistance Strategies on Consumers' Attitudes and Behaviour (H4a, H4b, and H4c)

Previous research found that affective responses to advertising have an impact on the attitude people have towards that brand (Derbaix, 1995; Homer & Yoon, 1992). More recently, Spears and Singh (2004) confirmed a relationship between negative feelings and brand attitude. As previously discussed, advertisements or the feeling of being manipulated can evoke negative affect, like feeling angry or upset (Campbell, 1995; Jacks & Cameron, 2003; Van Reijmersdal et al., 2016). Subsequently, these negative emotions could create a carryover or conditioning effect where affective stimuli from the commercial are linked to the brand itself (Crano & Prislin, 2006; Sweldens, Van Osselaer, & Janiszewski, 2010). In other words, negative affect that is induced by exposure to an advertisement could be attributed to the sponsor of that ad (Jacks & Cameron, 2003). The carryover effect of negative affect (Crano & Prislin, 2006) or evaluative conditioning (Sweldens, Van Osselaer, & Janiszewski, 2010) could then also affect attitudes towards the advertised product of that brand. Also, Van Reijmersdal et al. (2016) found that the use of affective resistance strategies lowered the attitude towards the advertised brand. Thus, it is also expected that:

> *H4a*: The more a respondent uses affective resistance strategies (i.e., 'negative affect') during exposure to the television commercial, the more negative the product attitude of the same brand will be after seeing the television commercial of that brand.

The same process of negative affect transfer to the product itself (Crano & Prislin, 2006; Sweldens, Van Osselaer, & Janiszewski, 2010) could also unfold for the attitude towards the advertisement. Also, Kim, Baek, and Choi (2012) found that affective elaboration (i.e., the amount of emotion that is produced) when watching an advertisement could negatively impact advertisement attitudes. More specifically, prior research suggests that negative feelings can directly or indirectly impact attitudes towards the advertisement (Derbaix, 1995; Homer & Yoon, 1992; Machleit & Wilson, 1988; Spears & Singh, 2004). This results in the following hypothesis:

> *H4b*: The more a respondent uses affective resistance strategies (i.e., 'negative affect') during exposure to the television commercial, the more negative the advertisement attitude of the same brand will be after seeing the television commercial of that brand.

Previous research found that positive brand affect was related to purchase loyalty (Chaudhuri & Holbrook, 2001), which implies that negative affect decreases loyalty and purchase intention. Moreover, as previously explained, a perception of being manipulated can negatively affect purchase intentions (Campbell, 1995). Likewise, Van Reijmersdal et al. (2016) found that persuasion knowledge motivates the use of affective resistance strategies, which then negatively affects brand attitudes, and ultimately lowers people's intentions to buy from that brand. Furthermore, Spears and Singh (2004) confirmed a negative relationship between negative affect and purchase intention. Therefore, it is expected that:

> *H4c*: The more a respondent uses affective resistance strategies (i.e., 'negative affect') during exposure to the television commercial, the lower the purchase intention of the same brand will be after seeing the television commercial of that brand.

To summarize, this chapter provided an overview of several well-established theories on persuasion and resistance, as well as contemporary research on brand preference, resistance strategies, and consumers' attitudes and behaviour. Overall, it can be concluded that brand preference is an important factor in consumers' advertising processing mechanisms and their decision-making processes. A stronger brand preference is expected to lead to less resistance and more positive attitudes towards the product and advertisement, as well as to higher purchase intentions. To answer the research question and to determine whether the use of resistance strategies mediates the effect of brand preference on consumers' attitudes and behaviour, a survey design was used. The choice of method, the research design, and the procedures will be elaborated on in the next chapter. Moreover, the following methodology chapter will discuss the sample and measurements of the survey.

3. Method

3.1. Choice of Method

The aim of this research is to examine if brand preference influences the use of resistance strategies while watching a television commercial, and if these resistance strategies mediate the effect of brand preference on consumers' attitudes and behaviour. The theoretical framework provided theories and prior empirical research that suggest that a stronger brand preference reduces the use of both cognitive and affective resistance strategies, and that subsequently, product attitude, ad attitude, and purchase intentions decrease. To collect information on these variables and to test the expectations as formulated in the hypotheses in the previous chapter, a quantitative online survey was distributed in The Netherlands. The quantitative nature of the survey (i.e., all questions in the questionnaire consisted of close-ended questions) allows to perform statistical analyses and to generalise results from the sample to a general population (Toepoel, 2016). The most appropriate method to test the use of resistance strategies during exposure to a television commercial, is conducting an online survey in which the stimulus material, the Dutch television commercial, is embedded. There was no need to divide the respondents into different conditions (i.e., using an experimental design), as the focus of this research is not to study the effects of different forms of advertisements, but the effects of different levels of brand preference, which information is collected in the questionnaire itself. Moreover, an online survey allows to reach a large sample relatively quickly and easily (Toepoel, 2016). Further choices on the research design, procedures, sample, and measurements will be elaborated in this chapter.

3.2. Research Design and Procedure
3.2.1. Choice of Product Category and Commercial

Most research on persuasion has focused on high involvement settings (e.g., asking the respondents for much cognitive efforts to process arguments), which is not an accurate representation of how advertisements are processed in everyday life (Olson & Thjømøe, 2003). Olson and Thjømøe (2003), who also studied brand preference, argued that the most common situation in which people are exposed to advertising, is a low involvement setting in which commercials are only processed lightly, or even ignored. Therefore, Olson and Thjømøe (2003) propose to study a low involvement product category, meaning that the product is generally not in people's personal interest or that they are not very willing to learn about the product. As toothpaste is a product with low involvement (Olson & Thjømøe, 2003) that highly relies on habitual purchases (including factors such as purchasing patterns of one's parents, price insensitivity, and time saving) (Wood, 2004), toothpaste was also chosen as the most suitable product category for this research. Moreover, it is expected that everyone uses this product category and, therefore, can answer questions about the product.

As previously mentioned, the online survey included a Dutch television commercial as stimulus material. One of the largest toothpaste brands in The Netherlands was selected for this study: Prodent. Prodent was chosen because it was expected that most respondents would recognise the brand. Moreover, it was expected that respondents would have large variations in their evaluation of Prodent and, therefore, a larger range in brand preferences could be captured, enabling to study its effects. An existing Dutch television commercial of Prodent was used. The 30-second commercial shows a father together with his young son. They are standing in front of a mirror and are brushing their teeth with Prodent toothpaste. They make silly faces, showing their teeth, and say in Dutch: "I cannot see anything". Then, a female voice-over says: "You cannot see it, but your teeth do erode, because daily acid attacks can cause tooth erosion. Renewed Prodent with ActiFluor+ strengthens the tooth enamel, which helps to protect the teeth against tooth erosion. So, even when you do not see anything, brush your teeth strong with Prodent". This last sentence was the brand's tag line. During the voice over, an animation of the functioning of the toothpaste is shown. Then, the product itself is presented (four types or flavours of Prodent toothpaste). The commercial was particularly suitable for this study, as it contains multiple claims that could be cognitively countered (i.e., respondents could use cognitive resistance strategies). Moreover, various elements of the commercial, such as the music, people, and voice-over, could elicit different emotional responses. These responses could be both positive (e.g., feeling happy) and negative (e.g., feeling annoyed). These negative affective responses are seen as the use of affective resistance strategies.

3.2.2. The Questionnaire

The questions of the survey were first composed in English, using existing, validated scales, which will be described in the measurements section. Yet, the population of this research includes Dutch people (who are 18 years and above). Answering questions in their own language would be easier for respondents and would, therefore, also shorten completion time. Thus, the questionnaire was translated into Dutch. Then, the Dutch version was compared to the original English version by a second translator with perfect knowledge of both Dutch and English. Minor adjustments were made to the translation, after which the questionnaire was pre-tested among six participants. Again, several adjustments were made, which were mostly textual, for example to stimulate completion (e.g., "You have almost reached the end of the questionnaire!") and to increase the clarity of the questions (e.g., specific underlining to emphasise certain words). Moreover, the question that tests negative affect (as described in the measurements section) firstly only contained negative words. However, adding positive words would prevent homogeneous answers among participants. The final questionnaire can be found in Appendix A (original English version) and Appendix B (Dutch version as distributed among respondents). The completion time of the survey was approximately five to seven minutes. In the end, 295 respondents had started the questionnaire and 265 of them finished it completely. Thus, the overall sample size was 265. The sample will further be described in section 3.3.

Before the start of the questionnaire, respondents agreed to the terms, including the guarantee that all participants would remain anonymous and that their answers would only be used for academic purposes. Moreover, respondents were made aware of the voluntary nature of the research. Respondents were also told that they were participating in a study about toothpaste brands and that they were about to see a commercial, for which they needed a working video and sound system. No cover story about the purpose of the research was needed, although the exact measurements of the survey were not disclosed (e.g., that their use of resistance strategies would be measured). If respondents would be aware of this, their answers could have been biased. Furthermore, the contact information of the researcher was presented, so if any questions or comments about the research would arise, the respondents were able to address the researcher. However, no enquires were made.

As mentioned, the population of this research included all Dutch people aged 18 years and above. Therefore, the questionnaire started with a filter question on respondents' age. Respondents who were 17 years or younger would be forwarded to a message saying that they did not fit the target group of interest. However, none of the respondents indicated to be 17 years or younger. Moreover, a test video was used to be certain that respondents were able to see and hear the commercial that would follow. The test video showed a red ball that turned into a bird and included background music. Respondents were asked if they could both see and hear the test video. Moreover, as an extra test, they were asked what they had seen in the test video. If respondents could not see and hear the video or if they did not answer the extra test question correctly, they were directed towards the end of the questionnaire and were shown a message saying that they could not participate. This applied to five respondents. After these filter questions, respondents could resume the questionnaire, starting with their demographics (i.e., gender and educational level).

Next, respondents were tested on their involvement with toothpaste. That is, how much they value having the right brand, how much they think this brand choice says something about a person, and how informed they feel about toothpaste. Thereafter, respondents were asked to choose their preferred toothpaste brand from a list of toothpaste brands that are offered in The Netherlands. Multiple answers could be selected, except when they indicated to not have a preference. Brand preference was initially measured by five questions. These were divided into two parts, because at this point in the survey, respondents were not yet aware that the questionnaire was about Prodent. Therefore, the two questions about respondents' interest in other brands were asked first. That is, if they were interested in trying other brands and if they intended to replace their current brand. After, they proceeded to a next screen saying they were randomly assigned to Prodent. In reality, there were no different conditions and every respondent had the same set of questions about Prodent. This way, it would appear like respondents were filling out a questionnaire about their opinions about different toothpaste commercials, preventing them from guessing its real purpose. Then, the remaining three questions about brand preference, which were specific to Prodent, were asked.

After testing respondents' brand preference, they were shown the Dutch Prodent commercial that was previously described. The size of the video was set to automatically adjust to the screen size of the respondents. Therefore, desktop computers, tablets, and smartphones were all suitable for watching the video. A timer of 30 seconds was included, so respondents could not skip the commercial. Moreover, before the start of the commercial, respondents were asked to pay attention to the upcoming ad. This was done to ascertain that they watched the ad attentively and were able to answer the following questions. Directly after the commercial, respondents were asked if they had seen it before. Then, they were tested on their use of cognitive and affective resistance strategies. Subsequently, respondents were asked for their attitudes towards the advertisement and the advertised product (Prodent toothpaste). Lastly, their purchase intentions and general scepticism towards advertising were measured.

The questionnaire ended with room to leave comments or questions. Most respondents left this box empty, but the overwhelming number of comments that were left, were positive about the research. For example, respondents said to have enjoyed the questionnaire (e.g., a respondent who felt nostalgic about the Prodent song), asked if they could be notified of the results, or wished good luck with the research. This indicates that no technical or other errors occurred during the completion of the questionnaire. Moreover, if respondents generally felt positive about completing the questionnaire, this contributed to their motivation to complete the questionnaire with contemplation. This benefits the reliability of the research.

3.2.3. Data Collection and Ethical Considerations

The questionnaire was programmed using the software of Qualtrics. The data was collected in cooperation with a Rotterdam based market research company, which is involved in advertising research as well. This company moderates several online communities (i.e., panels) with a variety of topics and target groups. Each online community has its own members, who are regularly invited to participate in market research. For the current study, the members of one of these communities, 'the general Dutch public', were invited to participate in the questionnaire through a newsletter notification. After this newsletter was sent out, the survey was accessible for a period of one week. Specifically, data was collected between April 26 and May 3, 2019. To stimulate participation, one of the participants could win a gift voucher worth 10 euros of a large online retailer in The Netherlands. The winner was announced after the survey was closed. Normally, the members of the online community receive credits for participating in research. As they could not earn credits by partaking in this research, the use of another incentive was desired.

The answers to the questions were not regarded as sensitive information. However, distributing the questionnaire online did give respondents the opportunity to fill in the questionnaire in a secure place, like their homes, if needed. Moreover, as described, respondents were informed about the terms of agreement prior to the start of the questionnaire. Therefore, respondents could make an

informed decision, and if respondents did not feel comfortable with participating, they could still quit the survey. Moreover, the respondents were informed about the identity of the researcher and the purpose of the study. In the newsletter that was sent out by the market research company, the members of the community were made aware that this questionnaire was not part of any market research, but functioned as academic research, part of the master thesis of one of the colleagues of that company.

3.3. Sample

As described, the population of this research included all Dutch people aged 18 years or older and the survey was distributed among an online community. This online panel consists of 'the general Dutch public' and all members are aged 18 or above. Using a volunteer opt-in panel is based on a non-probability sample. Consequently, there could be bias in subjects who do and do not opt-in and, therefore, real generalisations to the entire Dutch population cannot be made (Toepoel, 2016). However, the members of this panel represent the general Dutch population closely. To join the online community, members have to meet several selection criteria based on, for example, age and educational level. Thus, the online community is managed is such a way it ensures a representative sample. Still, 76% of the panel is female, while only 24% is male.

Of the 514 active members of the community, 295 had started the survey and 265 finished the entire questionnaire. Five respondents closed the survey immediately after the consent form. The remaining 290 respondents all met the age criterium. However, 10 of the respondents did not continue with the test video. Moreover, two of them could not hear the video and three of them could not see it. Then, another five respondents quit the survey and one respondent answered the extra test question incorrectly. At this point, one more respondent quit the survey and the remaining 269 respondents indicated their gender. However, as four other respondents did not finish the entire questionnaire, these were also excluded from further analyses. Thus, only the respondents who finished the entire questionnaire were included, making the overall sample size 265. All valid respondents were aged between 18 and 77 years old ($M = 44.30$, $SD = 13.59$), indicating a good representation of age. Of these respondents, 77.0% were female and 23.0% were male. For 18.1% of the respondents, primary or secondary school was the highest educational level they had followed. For 29.8%, a technical or vocational degree in tertiary education was their highest level. For the largest group, consisting of 32.1% of the respondents, a bachelor degree in applied university was their highest educational level. Then, for 7.2% of the respondents, a bachelor degree in university was their highest educational level and for 11.3%, a master degree in university. Lastly, 1.5% had followed a PhD, MBA, or equivalent. Thus, the sample had a good representation of educational level.

3.4. Measurements

All main variables were measured on a continuous scale and had been validated in prior research. Nonetheless, a factor analysis and reliability analysis were performed to validate each scale

and confirm usability for the current research. These scores are described below. Some of these scales were originally measured on a 7-point Likert scale and others on a 5-point Likert scale. Moreover, some scales ranged from 'strongly agree' to 'strongly disagree' while others ranged from 'strongly disagree' to 'strongly agree'. To be consistent throughout the survey and to prevent confusion among respondents, all scales were measured on a 5-point Likert scale and ranged from 'strongly disagree' to 'strongly agree'. This also shortened the completion time of the survey, which was beneficial for collecting truthful answers and therefore high quality data. Moreover, a 5-point Likert scale provides sufficient information and valid data.

3.4.1. Independent Variable

Brand preference. Based on the validated scale of Chang and Liu (2009), brand preference was measured by five statements: 'I am interested in trying other brands' (reversed), 'I intend to replace my toothpaste with other brands' (reversed), 'I think Prodent is superior to other competing brands', 'I prefer Prodent', and 'When considering purchasing toothpaste, I would consider Prodent first'. Respondents were asked to indicate on a scale of 1 (*strongly disagree*) to 5 (*strongly agree*) whether the statement applied to them. The scores on the last two items were reversed, as these two question interest in other brands. Reversing the scores thus indicates a disinterest in trying new brands

Table 3.1

Factor and Reliability Analyses for Scales for Brand Preference ($N = 265$)

Item	Brand preference	Disinterest in other brands
I am interested in trying other brands (r)	.31	**.83**
I intend to replace my toothpaste with other brands (r)	.40	**.79**
I think Prodent is superior to other competing brands	**.84**	-
I prefer Prodent	**.93**	-
When considering purchasing toothpaste, I would consider Prodent first	**.92**	-
R^2	.53	.29
Eigenvalue	2.67	1.46
Cronbach's α	.91[a]	.74
M	2.65[a]	2.77
SD	0.98[a]	0.91

Note. [a] Cronbach's α, *M*, and *SD* of *brand preference* were computed with the three last items, indicated in bold font.

and thereby a stronger brand preference. The three items about Prodent were shown on a subsequent screen, after respondents were told they were assigned to Prodent. To determine the scale's validity, the five items were entered into a factor analysis using Principal Components extraction with Varimax rotation based on Eigenvalues (> 1.00), $KMO = .69$, χ^2 ($N = 265$, 10) = 717.38, $p < .001$. The resultant model explained 82.5% of the variance in overall brand preference. Two factors with an Eigenvalue above 1 were found, indicating the presumed measure for brand preference with all five items would not be appropriate to use. The first factor included the three items about the preference for Prodent, while the second factor consisted of the two items measuring disinterest in other brands (see Table 3.1 for individual factor loadings). Because this study is aimed at measuring the brand preference for the brand included in the advertisement specifically, Prodent's brand preference is the only factor that is used in further analyses. This scale had an excellent reliability score, as determined by a Cronbach's α of .91. Although the score could be improved to .93 by deleting the item 'I think Prodent is superior to other competing brands', all three items were maintained, as this improvement was very minor and the reliability of the scale was already very high. A new variable called *brand preference* was created by averaging the three items and the observed range was 1.00 to 5.00 ($M = 2.65$, $SD = 0.98$).

3.4.2. Mediating Variables

Cognitive resistance strategies. The use of cognitive resistance strategies was measured as 'counterarguing' (Dillard & Shen, 2005; Rains, 2013; Van Reijmersdal et al., 2016). Respondents were asked to indicate to what extent they agreed with four statements about the Prodent commercial. The statement 'While watching, I … the information in the commercial' was completed by four items: 'Contested', 'Refuted', 'Doubted', and 'Countered' (adapted from Jacks & Cameron, 2003; Van Reijmersdal et al., 2016). Again, respondents were asked to indicate if the statement applied to them on a scale of 1 (*strongly disagree*) to 5 (*strongly agree*). To determine if a valid scale could be formed with the four items, they were entered into a factor analysis. Again, Principal Components extraction was used with Varimax rotation based on Eigenvalues (> 1.00), $KMO = .81$, χ^2 ($N = 265$, 6) = 670.46, $p < .001$. As expected, one factor with an Eigenvalue above 1 was found which included all four items. The resultant model explained 77.4% of the variance in the use of cognitive resistance strategies. The factor loadings of individual items were .86, .89, .88, and .88 respectively (presented in Appendix C, Table C.1). The scale had a high level of internal consistency (Cronbach's α = .90), which could not be improved by deleting any items. Thus, the variable for *cognitive resistance strategies* was computed using the average of the four items and the observed range was 1.00 to 5.00 ($M = 2.45$, $SD = 0.79$).

Affective resistance strategies. The use of affective resistance strategies was measured as 'negative affect' (Dillard & Shen, 2005; Rains, 2013; Van Reijmersdal et al., 2016). Similar to the measurement of counterarguing, negative affect was measured by asking respondents to what degree they agree with four statements about the Prodent commercial. 'While watching the commercial, I felt

…' was completed by 'Angry', 'Irritated', 'Annoyed', and 'Nervous' (adapted from Jacks & Cameron, 2003; Van Reijmersdal et al., 2016). Following previous research (Zuwerink Jacks & Devine, 2000), the negative words were mixed with positive words ('Good', 'Happy', 'Comfortable', and Optimistic') to prevent homogeneous answers among participants. Only the words related to negative affect were used for the analysis. The answering categories ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). A factor analysis with Principal Components extraction was used to determine the validity of the scale. The analysis used Varimax rotation based on Eigenvalues (> 1.00), *KMO* = .76, χ^2 (*N* = 265, 6) = 624.45, *p* < .001. One factor with an Eigenvalue above 1 was found. All four items were included and the resultant model explained 73.6% of the variance in the use of affective resistance strategies. The individual factor loadings were .84, .87, .90, and .83 respectively (Appendix C, Table C.2). The new scale proved to be internally consistent (Cronbach's α = .88), which could not be improved by deleting any items. The variable *affective resistance strategies* was created with the average scores of the four items and the observed range was 1.00 to 5.00 (*M* = 1.81, *SD* = 0.75).

3.4.3. Dependent Variables

Product attitude. To determine product attitude, the average of four bipolar semantic scales was used. Respondents were asked to indicate how they evaluate the advertised product (Prodent toothpaste) using the words 'Bad–Good', 'Uninteresting–Interesting', 'Unfavourable–Favourable', and 'Unpleasant–Pleasant' on a 5-point Likert scale (similar to Kamins & Marks, 1987; Lee, Park, & Han, 2008). For example, 'Bad' had a score of 1 and 'Good' a score of 5. To test the scale's validity, a factor analysis with Principal Components extraction was used with Varimax rotation based on Eigenvalues (> 1.00), *KMO* = .85, χ^2 (*N* = 265, 6) = 1155.39, *p* < .001. One factor was found with an Eigenvalue above 1. All four items were found to be appropriate to construct a scale, which resultant model explained 87.5% of the variance in product attitude. The factor loadings of individual items were .92, .91, .96, and .95 respectively (presented in Appendix C, Table C.3). A Cronbach's α of .95 proved the scale's excellent reliability. The scale could not be improved by deleting any items. Hence, the average scores of all four items were used for the new scale *product attitude* and the observed range was 1.00 to 5.00 (*M* = 3.60, *SD* = 0.90).

Advertisement attitude. According to prior research, advertisement attitude was measured on four bipolar items; respondents were asked how they would evaluate the commercial using the words 'Bad–Good', 'Dislike–Like', 'Not irritating–Irritating', and 'Uninteresting–Interesting' (Mitchell, 1986; Mitchell & Olson, 1981). Again, it was measured on a 5-point Likert scale, where three of the four items indicated a very negative attitude towards the ad with a score of 1 (e.g., 'Bad' had a score of 1) and a very positive attitude with a score of 5 (e.g., 'Good' had a score of 5). One item, 'Not irritating–Irritating', indicated a very positive attitude towards the ad with a score of 1 and a very negative attitude with a score of 5. Therefore, in order to combine the items, the scores of this last item were later reversed (i.e., a score of 1 indicated a very negative attitude and a score of 5 a very positive

attitude). A factor analysis with Principal Components extraction was used to determine the validity of the scale. The analysis used Varimax rotation based on Eigenvalues (>1.00), $KMO = .80$, χ^2 ($N = 265$, 6) = 547.90, $p < .001$. One factor with an Eigenvalue above 1 was found, which individual loadings were .87, .90, .82, and .82 respectively (Appendix C, Table C.4). All four items were found to be appropriate for the scale. The resultant model explained 72.7% of the variance in advertisement attitude. The new scale scored a Cronbach's α of .87 and, therefore, proved to be internally consistent. The reliability could not be improved by deleting any items. Thus, the average of the four items were all used to create the new variable *advertisement attitude* which observed ranged was 1.00 to 5.00 ($M = 3.53$, $SD = 0.92$).

Purchase intention. To measure purchase intention, respondents were asked to what extent they agree with the following three statements: 'I want to buy Prodent', 'I intend to buy Prodent', and 'I will look for Prodent in a store' (adapted from Spears & Singh, 2004; Van Reijmersdal et al., 2016). The answering categories again ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). To test if a valid scale could be formed with the three items, they were entered into a factor analysis using Principal Components extraction with Varimax rotation based on Eigenvalues (> 1.00), $KMO = .77$, χ^2 ($N = 265$, 3) = 895.65, $p < .001$. One factor with an Eigenvalue above 1 was found with all three items. The resultant model explained 92.5% of the variance in purchase intention. The factor loadings of individual items were .96, .97, and .96 respectively (Appendix C, Table C.5). The scale was found to have excellent reliability (Cronbach's α = .96) and could not be improved by deleting items. The average scores of the three items were thus used to create the new variable *purchase intention* and the observed range was 1.00 to 5.00 ($M = 2.77$, $SD = 1.05$).

3.4.4. Control Variables

To control for alternative explanations, six control variables are included in the analyses: age, gender, educational level, familiarity with the ad, product category involvement, and general scepticism towards advertising. Age was included, as previous research indicated that when a threat to one's freedom occurs, younger people exert more reactance than older people (Brehm & Brehm, 1981; Hong, Giannakopoulos, Laing, & Williams, 1994; Woller, Buboltz, & Loveland, 2007). Gender could also play a role, because prior research found that men were more likely to perceive negative affect as a useful resistance strategy, compared to women (Jacks & Cameron, 2003). Moreover, Woller et al. (2007) found that men show more reactance than women when their freedom is threatened. Lastly, educational level was included as a control variable, because Jacks and Cameron (2003) found that it could influence the likelihood of using certain resistance strategies. The remaining three control variables (familiarity with the ad, product category involvement, and general scepticism towards advertising) will now be described.

Familiarity with the ad. People's familiarity with the ad was used as a control variable, as it is assumed that it can affect brand and ad attitudes in a way that positive attitudes increase with the

number of ad impressions, but decrease after a certain level of excessiveness (e.g., McCoy, Everard, Galletta, & Moody, 2017; Reinhard, Schindler, Raabe, Stahlberg, & Messner, 2014; Schmidt & Eisend, 2015). To test if the respondents were familiar with the ad, one question was asked: 'Have you seen this commercial before?'. Respondents could choose between 'Yes', 'No', and 'Not sure'. After data collection, the category 'Not sure' was combined with the category 'No', because it is expected that people who are not completely certain, are not familiar with the ad to such an extent that it could influence their responses. In total, 75.1% of the respondents had not seen the commercial before (or was not sure) and 24.9% did see the commercial before.

Product category involvement. Product category involvement was included as a control variable, because it is expected that people who have a greater interest in the product category process that information differently (Olson & Thjømøe, 2003). Moreover, personal importance was found to have a positive effect on negative affect and resistance to change (Jacks & Cameron, 2003). Thus, high-elaboration on the product category (toothpaste) could strengthen prior attitudes. To measure product category involvement for toothpaste, three items were included: 'When I buy toothpaste, it is important for me that I get exactly the right brand', 'The toothpaste brand chosen says a lot about a person', and 'I feel well informed about toothpaste' (Olson & Thjømøe, 2003). Respondents were asked to indicate on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) to what extent they agreed with those statements. To test if a valid scale could be constructed with the three items, a factor analysis was performed. A Principal Components extraction was used with Varimax rotation based on Eigenvalues (> 1.00), $KMO = .64$, χ^2 ($N = 265, 3$) $= 85.77$, $p < .001$. One factor with an Eigenvalue above 1 was found with the three items. The factor loadings of the individual items were .74, .75, and .76 respectively (also see Appendix C, Table C.6). The resultant model explained 56.8% of the variance in product category involvement. The scale's reliability was not high (Cronbach's $\alpha =$ .61), but still acceptable to use for further analyses when interpreted with caution (Schmitt, 1996). The scale's reliability could not be improved by deleting any items. The average scores of the three items were then used to create the new variable *product category involvement* which ranged from 1.33 to 5.00 ($M = 3.16$, $SD = 0.75$).

Scepticism towards advertising. Lastly, people's scepticism towards advertising in general was used as a control variable, as it could influence attitudes towards advertisements and increase the use of counterarguments (Obermiller & Spangenberg, 1998). As a result, people who are more sceptical towards advertising are less likely to be persuaded by the ad and less likely to adjust their brand attitudes (Obermiller & Spangenberg, 1998). Scepticism towards advertising was measured by five items: 'We can depend on getting the truth in most advertising', 'Advertising is a reliable source of information about the quality and performance of products', 'In general, advertising presents a true picture of the product being advertised', 'I feel I've been accurately informed after viewing most advertisements', and 'Most advertising provides consumers with essential information'. Respondents will be asked to indicate on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) to what

extent they agree with these statements. The five items were part of a scale developed by Obermiller and Spangenberg (1998), which originally constituted of nine items. However, to keep the questionnaire shorter, to prevent respondents closing the survey without completing it or answering untruthfully, only the five items with the highest factor loadings ($\geq$ .65 in both administrations) were used for the current study. As a higher score indicated more trust in advertising and a lower score more scepticism towards advertising, the scores were reversed. Thus, after reversion, a score of 1 indicated a low level of scepticism towards advertising and a score of 5 a high level of scepticism towards advertising. To test the scale's validity with the five items, a factor analysis was performed using a Principal Components extraction with Varimax rotation based on Eigenvalues (> 1.00), *KMO* = .90, χ^2 (*N* = 265, 10) = 1051.40, *p* < .001. One factor with an Eigenvalue above 1 was found and the resultant model explained 78.7% of the variance in scepticism towards advertising. The factor loadings of the five individual items were .88, .91, .87, .90, and .87 respectively (Appendix C, Table C.7). The scale proved to be very reliable (Cronbach's α = .93) and could not be improved by deleting any items. Thus, the average of the scores of the five items were used to construct the variable *scepticism towards advertising* which observed range was 1.00 to 5.00 (*M* = 3.34, *SD* = 0.88).

3.5. Preview of Further Analyses

This chapter argued why an online survey design was used and why a low involvement product such as toothpaste was most suitable. Moreover, it was described how the questionnaire was constructed, including the choice for the commercial, and how it was distributed among an online panel. Lastly, the ethical considerations, sample, and measurements were described. All scales had been tested on validity and reliability and could be used for further analyses.

The next results chapter will first describe the correlations between the research concepts. Then, as the independent, mediation, and dependent variables are all measured on continuous scales, multiple regression analyses are performed to test the hypotheses. The next chapter will describe the five models that are examined with the regression analyses. After testing these five models, an overview of the hypotheses, and whether or not they can be accepted, will be given.

4. Results

4.1. Correlations

In order to examine the bivariate relationships between the research concepts, correlations between the variables were constructed first (see Table 4.1). As expected, brand preference was negatively related to the use of cognitive resistance strategies, although this effect was small ($r = -.14$, $p < .001$). The higher the preference for the brand, the less respondents used cognitive resistance strategies. However, no significant relationship was found between brand preference and the use of affective resistance strategies ($r = -.00$, $p = .981$). Nonetheless, brand preference was found to be positively related to all three components of consumers' attitudes and behaviour. The highest correlation was found between brand preference and purchase intention ($r = .76$, $p < .001$), which indicates a strong positive association between the two variables. Then, brand preference was also found be positively related to product attitude ($r = .33$, $p < .001$) and advertisement attitude ($r = .26$, $p < .001$), which indicate a medium and a small relationship respectively.

Additionally, the bivariate relationships between the use of resistance strategies and consumers' attitudes and behaviour were tested. The correlations show that the use of both cognitive and affective resistance strategies are negatively related to product attitude ($r = -.53$, $p < .001$, a strong association; $r = -.42$, $p < .001$, a medium association), advertisement attitude ($r = -.50$, $p < .001$; $r = -.51$, $p < .001$; both strong associations), and purchase intention ($r = -.27$, $p < .001$; $r = -.15$, $p < .001$; both small associations). In other words, respondents who used cognitive or affective resistance strategies had more negative attitudes towards the product and the ad and had less intentions to purchase the product. Moreover, the use of resistance strategies was found to have a stronger relationship with consumers' attitudes, while brand preference was more strongly related to purchase intention.

Table 4.1

Correlation Matrix ($N = 265$)

	M	*SD*	1	2	3	4	5
1. Brand preference	2.65	0.98					
2. Cognitive resistance strategies	2.45	0.79	-.14*				
3. Affective resistance strategies	1.81	0.75	-.00	.64***			
4. Product attitude	3.60	0.90	.33***	-.53***	-.42***		
5. Advertisement attitude	3.53	0.92	.26***	-.50***	-.51***	.75***	
6. Purchase intention	2.77	1.05	.76***	-.27***	-.15*	.48***	.42***

Note. Significance levels: * $p < .05$ ** $p < .01$ *** $p < .001$ (2-tailed).

Although the correlations between the research concepts give an indication of the bivariate relationships between the variables, it cannot provide more profound information on multivariate relationships. Thus, in order to test the hypotheses more thoroughly, multiple regression analyses have been performed, which will now be described.

4.2. Predictors of Cognitive and Affective Resistance Strategies

First, a multiple OLS regression analysis was used to assess the effect of brand preference on the use of cognitive resistance strategies (H2a). Both variables were measured on a continuous scale; for that reason, a regression analysis could be used. The six control variables (age, gender, educational level, familiarity with the ad, product category involvement, and scepticism towards advertising) were included as well. Gender and familiarity with the ad were included as dummy variables and the remaining four control variables were measured on continuous scales, making them appropriate for the use in the regression analysis. The model (see Table 4.2, Model 1), with brand preference as predictor, was found to be significant, $F(7, 257) = 4.54$, $p < .001$, $R^2 = .11$. The model explained 11.0% of the variance in the use of cognitive resistance strategies. However, brand preference itself was not a significant predictor ($b^* = -.03$, $t = -0.49$, $p = .623$). Therefore, H2a is not supported.

Table 4.2

Regression Models for Predicting Resistance Strategies ($N = 265$)

	Cognitive resistance strategies – Model 1	*Affective resistance strategies* – Model 2
Constant	3.21	1.96
Brand preference	-.03	.07
Control variables		
Age	-.03	-.04
Gender (0 = male; 1 = female)	-.01	.04
Educational level	-.02	.03
Familiarity with the ad (0 = no; 1 = yes)	.02	-.00
Product category involvement	.07	.06
Scepticism towards advertising	.34***	.23**
R^2	.11	.05

Notes. The presented values are standardised regression coefficients. Significance levels: * $p < .05$ ** $p < .01$ *** $p < .001$ (2-tailed).

To test the effect brand preference on affective resistance strategies (H2b), a second multiple OLS regression analysis was performed (see Table 4.2, Model 2). The same six control variables were

included in the model. The model was found to not be significant, $F(7, 257) = 1.74$, $p = .099$, $R^2 = .05$. Thus, the model with brand preference as predictor ($b^* = .07$, $t = 1.10$, $p = .623$), could not sufficiently predict the use of affective resistance strategies and, therefore, H2b must be rejected.

Of the control variables, age, gender, educational level, familiarity with the ad, and product category involvement were found to have no influence on the use of cognitive and affective resistance strategies. Interestingly however, respondents' scepticism towards advertising in general was found to be a significant predictor of both the use of cognitive resistance strategies ($b^* = .34$, $t = 5.03$, $p < .001$) and affective resistance strategies ($b^* = .23$, $t = 3.27$, $p = .001$). Thus, a higher level of general scepticism towards advertising led to more cognitive and affective resistance among the respondents.

4.3. Predictors of Consumers' Attitudes and Behaviour

To test which factors influence consumers' product attitudes, a multiple OLS regression analysis was used. Brand preference, cognitive resistance strategies, and affective resistance strategies were included as the predictors of product attitude (H1a, H3a, and H4a). Both the predictors and the dependent variable were measured on a continuous scale and, therefore, this type of analysis could be used. Similar to the previous models, age, gender, educational level, familiarity with the ad, product category involvement, and scepticism towards advertising were included as control variables. With the

Table 4.3

Regression Models for Consumers' Attitudes and Behaviour ($N = 265$)

	Product attitude – Model 3	Advertisement attitude – Model 4	Purchase intention – Model 5
Constant	3.48	3.54	2.00
Brand preference	.19***	.15**	.70***
Cognitive resistance strategies	-.31***	-.18**	-.08
Affective resistance strategies	-.17**	-.35***	-.07
Control variables			
Age	-.00	-.05	.03
Gender (0 = male; 1 = female)	-.10*	-.05	.02
Educational level	.01	.02	.03
Familiarity with the ad (0 = no; 1 = yes)	.13**	.07	.02
Product category involvement	.07	.15**	-.06
Scepticism towards advertising	-.27***	-.21***	-.19***
R^2	.47	.45	.64

Notes. The presented values are standardised regression coefficients. Significance levels: * $p < .05$ ** $p < .01$ *** $p < .001$ (2-tailed).

three predictors, the model for product attitude (see Table 4.3, Model 3) was found to be significant, $F(9, 255) = 24.78$, $p < .001$, $R^2 = .47$, and explains 46.7% of its variance. First, brand preference was found to have a significant positive influence on product attitude ($b^* = .19$, $t = 3.77$, $p < .001$), supporting H1a. Then, the use of cognitive resistance strategies was also found to be a significant predictor: the model indicated that cognitive resistance strategies had a significant negative influence product attitude ($b^* = -.31$, $t = -5.08$, $p < .001$). Thus, the more respondents used cognitive resistance strategies, the lower their levels of product attitude would be, which confirms H3a. The effect of the use of cognitive resistance strategies on product attitude was the strongest of this model. In addition, the use of affective resistance strategies was found to have a significant negative influence on product attitude ($b^* = -.17$, $t = -2.80$, $p = .005$), which supports H4a. Of the control variables, gender, familiarity with the ad, and scepticism were also found to have a significant effect on product attitude. First, gender was found to have significant influence: being a woman predicted a more negative attitude towards the advertised product ($b^* = -.10$, $t = -2.10$, $p = .035$). Moreover, familiarity with the ad had a small positive effect on product attitude ($b^* = .13$, $t = 2.80$, $p = .006$) and scepticism towards advertising was found to have a negative influence product attitude ($b^* = -.27$, $t = 4.90$, $p < .001$).

To predict advertisement attitude, another multiple OLS regression analysis was performed. Again, brand preference, cognitive resistance strategies, and affective resistance strategies were included as predictors (H1b, H3b, and H4b). Moreover, age, gender, educational level, familiarity with the ad, product category involvement, and scepticism towards advertising were again included as control variables. The model (see Table 4.3, Model 4) was found to be a significant predictor of advertisement attitude, $F(9, 255) = 23.33$, $p < .001$, $R^2 = .45$. This model could explain 45.3% of the variance in consumers' attitudes towards the advertisement. Individually, all three main predictors were found to be significant. To start, brand preference was found to have a significant positive influence of advertisement attitude ($b^* = .15$, $t = 3.01$, $p = .003$), which supports H1b. Moreover, the model showed that advertisement attitude could significantly be predicted by the use of cognitive resistance strategies ($b^* = -.18$, $t = -2.93$, $p = .004$). Higher levels of cognitive resistance thus resulted in a more negative attitude towards the advertisement. This confirms H3b. Lastly, the use of affective resistance strategies was found to be a significant predictor of advertisement attitudes and negatively impacted attitudes towards the ad ($b^* = -.35$, $t = -5.83$, $p < .001$), thus supporting H4b. Moreover, the use of affective resistance strategies was the most important predictor of advertising attitude. In regard to the control variables, both product category involvement and scepticism towards advertising in general were found to significantly impact advertisement attitudes. Involvement with the product category had a positive influence on ad attitudes ($b^* = .15$, $t = 2.97$, $p = .003$), while scepticism towards advertising had a negative influence on ad attitudes ($b^* = -.21$, $t = -3.77$, $p < .001$).

The last model tried to explain the variance in purchase intention. Again, a multiple OLS regression analysis was performed, using brand preference, cognitive resistance strategies, and affective resistance strategies as predictors (H1c, H3c, and H4c). The same control variables were

included (age, gender, educational level, familiarity with the ad, product category involvement, and scepticism towards advertising). The model, as presented in Table 4.3 (Model 5), was found to be significant, $F(9, 255) = 50.20$, $p < .001$, $R^2 = .64$, and explained 63.9% of the variance in purchase intention. Thus, of all three models trying to explain consumers' attitudes and behaviour, this model had the most predictive power. Moreover, this means that 63.9% of consumers' purchase intention can be explained by using the predictors in this model. Brand preference was found to be the most important predictor and had a strong positive influence on purchase intention ($b* = .70$, $t = 17.12$, $p < .001$). This is in line with the expectation of H1c. However, both the use of cognitive resistance strategies ($b* = -.08$, $t = -1.47$, $p = .144$) and the use of affective resistance strategies ($b* = -.07$, $t = -1.45$, $p = .148$) could not significantly predict purchase intention. Therefore, H3c and H4c must be rejected.

Although no effects of cognitive nor affective resistance strategies on purchase intentions were found, it could be argued that these effects are mediated by consumers' attitudes. In this case, resistance strategies would affect advertisement attitudes first. Subsequently, attitudes towards the ad could influence product attitudes, which in turn affect purchase intentions. To test this alternative framework, two more multiple OLS regression analyses were performed (Model 7 and 8, Appendix D). The same predicting variables and control variables as in the previous models were used. Model 6, which depicts the effects on advertisement attitudes, is identical to Model 4 (Table 4.3), but is also presented in Appendix D to create an overview. Model 7 presents the predictors of product attitude. In contrast to the previous model to predict product attitude (Model 3, Table 4.3), advertisement attitude was also included as a predictor. The model was found to be significant, $F(10, 254) = 44.17$, $p < .001$, $R^2 = .64$. Moreover, advertisement attitude was found to be a significant predictor of product attitude ($b* = .55$, $t = 10.82$, $p < .001$). Then, the effects on purchase intentions were tested (Model 8). In this model, both advertisement attitude and product attitude were included to test whether these attitudes would have an effect on purchase intentions. The model was found to be a significant, $F(11, 253) = 45.50$, $p < .001$, $R^2 = .66$. First, it was found that advertisement attitude could, to a certain degree, predict purchase intention ($b* = .11$, $t = 1.92$, $p = .056$). This effect was marginally significant. As the bivariate relationship between advertisement attitude and purchase intention was found to be moderately strong and significant ($r = .42$, $p < 001$), it is very likely that ad attitude indeed has an effect on purchase intention. Then, product attitude was also found to have a positive significant influence on purchase intention ($b* = .13$, $t = 2.15$, $p = .033$). All in all, these three models indicate an alternative explanation: The indirect effects of resistance strategies on purchase intention suggest a partial mediation by ad attitude and product attitude. That is, advertisement attitude was found to influence product attitude and purchase intention, and product attitude affected purchase intentions.

4.4. Summary of Results

This chapter started with the presentation of the correlations between each of the research concepts. Multiple significant bivariate relationships were found. For example, brand preference was found to be negatively related to the use of cognitive resistance strategies and to be positively related to all three components of consumers' attitudes and behaviour. Moreover, both the use of cognitive and affective resistance strategies were negatively associated with consumers' attitudes and behaviour.

Next, multiple regression analyses were performed to test the multivariate relationships and to be able to test the hypotheses. The first hypotheses tested the direct effects of brand preference on consumers' attitudes and behaviour. These were found to be significant (see Figure 4). To examine if the use of resistance strategies mediate these effects, the second hypotheses tested if brand preference influences the use of cognitive and affective resistance strategies. Although it was hypothesised that brand preference would have an influence, no significant effects were found. Lastly, the effects of the use of resistance strategies on consumers' attitudes and behaviour were tested with hypotheses three and four. Here, mixed results were found. Both product attitude and advertisement attitude could be predicted by the use of resistance strategies. However, no direct influence on purchase intention was found. An alternative model was presented, suggesting a partial mediation of advertisement attitude and product attitude on purchase intention.

Although no indirect effects of brand preference via resistance strategies on consumers' attitudes and behaviour were found, these results include several very interesting findings. The next chapter will draw a final conclusion on these findings, leading to the answer to the research question. Then, the results of this research will be further discussed in relation to theory. In addition, the current study and its methodology will be reflected on, including limitations, strengths, and suggestions for future research. Finally, the implications for science and society will be elaborated on.
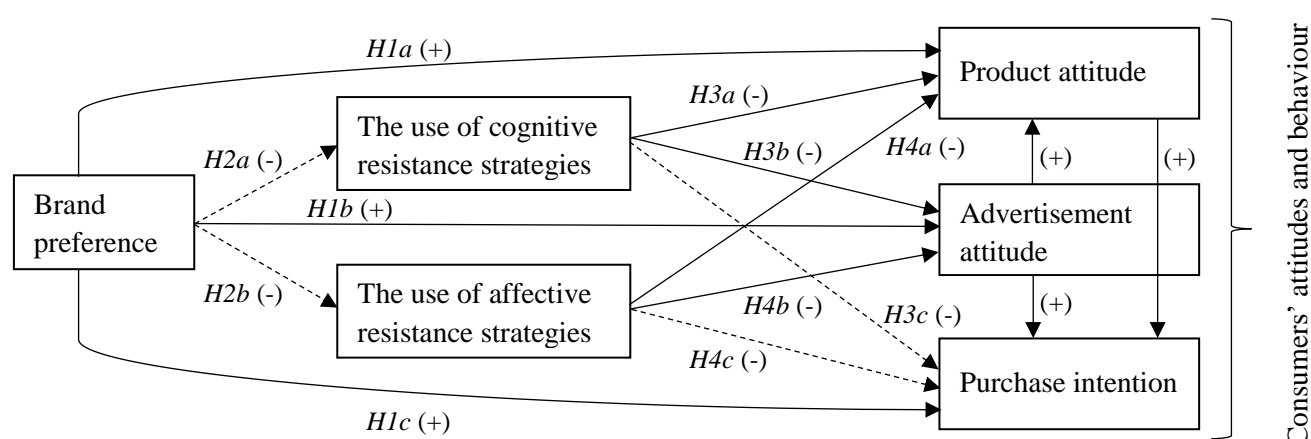

Figure 4. Results of Regression Analyses.

Note. Significant results are presented with solid lines and non-significant results are presented with interrupted lines.

5. Conclusion and Discussion

All in all, the aim of this study was to answer the following research question: To what extent does brand preference predict the use of cognitive and affective strategies to resist persuasion when seeing a television commercial of the same brand, and to what extent do these resistance strategies subsequently affect the product attitude, advertisement attitude, and purchase intention of that brand? Based on the findings, it can be concluded that brand preference does not predict the extent to which people use cognitive and affective resistance strategies, although the use of resistance strategies can, in fact, predict product attitudes and advertisement attitudes. Thus, consumers who try to resist the persuasive message, either by counterarguing the message or by eliciting negative affect, form more negative attitudes towards the product and the ad. It can also be concluded that cognitive resistance strategies had a stronger effect on product attitudes, while affective resistance strategies had a stronger effect on advertisement attitudes. Furthermore, brand preference was found to be a powerful predictor of consumers' attitudes and behaviour. These direct effects of brand preference on consumers' attitudes and behaviour, and the effects of resistance strategies on product attitude and advertisement attitude, are interesting findings that deserve further explorations. Moreover, the effects of the use of resistance strategies on product attitude and advertisement attitude suggest the importance of people's cognitions and affection while watching a commercial in their formation of attitudes. In combination with the effects of brand preference, it can be concluded that initial opinions about a brand, and the extent to which people try to resist persuasion attempts, are important in determining their final attitudes and shopping behaviour. Thus, the statement of Tellis (1988) – that advertising would reinforce existing brand preferences rather than stimulate consumers to switch brands – does still hold.

5.1. Detailed Discussion of Findings

The first hypotheses (H1a, H1b, and H1c) tested the direct effect of brand preference on consumers' attitudes and behaviour. First, brand preference was found to have a positive influence on respondents' attitudes towards the advertised product. This confirmed the expectation of H1a and is in line with previous research (Lee, 2010; Machleit & Wilson, 1988). Then, brand preference was also found to be a significant predictor of the advertisements' attitudes, which confirmed H1b. Previous research has also suggested that existing preferences are related to positive attitudes towards the ad (Lee 2010; Siddarth & Chattopdahyay, 1998). Lastly, brand preference was found to have a significant influence on purchase intentions. The stronger the preference for the brand, the more respondents were willing to purchase the brand. This means that H1c could be accepted. This expectation was strongly supported by prior research. For example, previous studies found that brand preference was related to people's willingness to repurchase from a specific supplier (Chang & Liu, 2009; Hellier, Geursen, Carr, & Rickard, 2003).

Overall, established theories, such as the cognitive dissonance theory (Festinger, 1962) and familiarity and confirmation biases (Chira, Adams, & Thornton, 2008), suggest that prior attitudes and beliefs are likely to be reinforced when people are confronted with messages that are incongruent to their existing position. Thus, people naturally gravitate to brands or products that they know and value most. This explains why respondents who had a stronger preference for the brand, also had more positive attitudes towards the product and the ad, and were more likely to purchase the advertised product after seeing the commercial. Especially the positive effect of brand preference on advertisement attitude was a relatively new, and therefore relevant, finding. This finding implies that when people have existing favourable beliefs or opinions about a brand, this also positively influences how they perceive messages about that brand. In other words, their prepositions are an important factor in their evaluations of advertising efforts, which can have large consequences for marketeers, which will be discussed later.

Then, the second hypotheses (H2a and H2b) tested whether a higher level of brand preference leads to the use of cognitive and affective resistance strategies. Although a negative bivariate association was found between brand preference and cognitive resistance strategies, the regression analyses indicated that there was no significant influence of brand preference on cognitive nor affective resistance strategies. Hence, both H2a and H2b had to be rejected. This is surprising, as prior research does suggest a relationship between prior preferences and the extent to which people try to resist persuasion attempts (e.g., Lee, 2010; Pritchard, Havitz, & Howard, 1999). As the bivariate associations between brand preference and cognitive resistance strategies were found to be significant and previous studies do suggest a relationship between brand preference and both cognitive and affective resistance, it is still likely that such effects could be found in different circumstances. Therefore, two explanations of why these effects were not found in the current study are now presented.

First, many researchers contend that a feeling of a threat to one's freedom is a prerequisite for using resistance strategies (Brehm & Brehm, 1981; Fransen, Verlegh, Kirmani, & Smit, 2015; Rains, 2003). To further explore this path from perceived threat to one's freedom to resistance, Silvia (2006) found that in some cases the threat *directly* caused disagreement. In other words, no mediating effect of cognitive responses (i.e., counterarguing) was found, but only a direct effect of a perceived threat to disagreement with the message. This is one argument of why this research could not find differences in the use of cognitive resistance strategies as a result of stronger brand preferences, but did find direct effects of brand preferences on consumers' attitudes and behaviour. Thus, possibly, the perceived threat did not cause more cognitive response and only affected consumers' attitudes and behaviour directly. Alternatively, it could be argued that the respondents of this research did not perceive the commercial or the persuasive message as threatening in the first place. Future research could, therefore, test the level of perceived threat to one's self-agency and if this influences respondents' use of resistance strategies. Moreover, a different commercial could be used that is perceived as more

threatening to respondents self-agency, for example by using a commercial in which advertisers speak badly about their competitor or use other forms of pressure. A manipulation check could test the level of threat that is induced by the commercial, prior to the actual test.

Secondly, previous research indicated that when people are exposed to a message that is personally relevant or contains attributes that are important to them, this can increase negative thoughts and feelings if it concerns a counterattitudinal commercial (Jacks & Cameron, 2003; Lee, 2010; Pritchard, Havitz, & Howard, 1999). In the current study, the commercial that was used as stimulus material included a father with his son. Perhaps, many of the respondents could not identify with these characters. For example, because they do not have children, making it less personally relevant. This could have resulted in less affective resistance towards the advertisement. Here again, future research could measure this level of identification with different commercials, and if this affects the level of affective resistance.

As formulated in the third hypotheses (H3a, H3b, and H3c), it was expected that the use of cognitive resistance strategies would have a negative impact on consumers' attitudes and behaviour. The correlations between these components indeed indicated significant negative associations. First, the regression analysis confirmed that cognitive resistance strategies are a significant predictor of product attitudes. Therefore, H3a could be accepted, which corresponds to existing literature (Lee, 2010; Silvia, 2006). Then, the regression analysis indicated that cognitive resistance strategies can significantly influence advertisement attitudes. Thus, H3b could also be accepted. This is in line with previous studies that found, for example, that persuasion knowledge and cognitive elaboration can lead to less favourable attitudes towards the advertisement (Campbell, 1995; Kim, Baek, & Choi, 2012). Lastly, a negative association was found between cognitive resistance strategies and purchase intentions. However, the results of the regression analysis could not confirm a significant influence of cognitive resistance strategies on purchase intention and, therefore, H3c had to be rejected.

As explained in the theoretical framework, the three components of consumers' attitudes and behaviour (product attitude, advertisement attitude, and purchase intention) were measured concurrently, as opposed to the hierarchy of effects model (Lavidge & Steiner, 1961). This decision was based on the lack of empirical evidence of the effects of resistance strategies on each of the concepts. Therefore, measuring the effects of the use of resistance strategies on these three elements individually could provide a more detailed presentation of the hypothesised effects. Although this argumentation is still valid, it could explain why no direct effects of resistance strategies on purchase intention were found. Possibly, the use of resistance strategies did not affect purchase intentions directly, but did have an influence mediated by consumers' attitudes. To test this alternative framework, an extra test was performed, which indeed found a partial mediation by consumers' attitudes (see Appendix D). Thus, advertisement attitude was found to influence product attitude, which in turn affected purchase intention. This is an important finding, as it suggests that resistance strategies can indeed influence purchase intentions, even though the effects are indirect.

Finally, the fourth hypothesised effects (H4a, H4b, and H4c) of the use of affective resistance strategies on consumers' attitudes and behaviour were tested. The results of the correlations suggested a negative relationship between affective resistance strategies and product attitude. This was confirmed by the regression analysis, indicating that the use of affective resistance strategies can significantly predict product attitudes. Hence, H4a could be accepted. The same effects of the use of affective resistance strategies were found on advertisement attitudes. Thus, affective resistance strategies were found the be a significant predictor of ad attitudes, confirming H4b. This could theoretically be explained by the carryover effect of negative affect and evaluative conditioning (Crano & Prislin, 2006; Sweldens, Van Osselaer, & Janiszewski, 2010). That is, the affect that was evoked by watching the commercial, for example feeling annoyed (negative affect), was attributed to the product in that commercial. On the other hand, when a respondent felt good while watching the commercial, he or she did not use affective resistance strategies, and thus did not evaluate the product more negatively. The same reasoning of the transfer of negative affect could result in attitudinal changes towards the ad. Moreover, many studies did indeed suggest that negative effect could influence people's attitudes towards an advertisement (Derbaix, 1995; Homer & Yoon, 1992; Machleit & Wilson, 1988; Spears & Singh, 2004).

Lastly, a significant negative association was found between affective resistance strategies and purchase intention. However, the regression analysis could not confirm this relationship and did not find a significant effect of affective resistance strategies on purchase intentions. Thus, H4c had to be rejected. As argued above, this lack of evidence could be explained by the decision to not follow the hierarchy of effects model (Lavidge & Steiner, 1961), but to research all three elements of consumers' attitudes and behaviour concurrently. Still, a partial mediation via advertisement attitude and product attitude was found.

Another intriguing finding of this research is that product attitude was best to predict by cognitive resistance strategies, while advertisement attitude was best to predict by affective resistance strategies. It could be argued that the construction of an attitude towards a product is more of a cognitive process, whereas the construction of an attitude towards an advertisement is more of an affective process. First, the cognitive process involves consumers who consider different attributes, which are available in their consideration set, about the product (similar to the process of constructing a brand preference; Hellier, Geursen, Carr, & Rickard, 2003). Moreover, previous research indicated that product attitudes are constructed through information processing (Lee, Park, & Han, 2008). This is also related to cognitive resistance, as people who use cognitive resistance strategies are involved in rational evaluations (Knowles & Linn, 2004) and generate arguments against the promoted message or in favour of their existing attitude (Fransen et al., 2015a; Fransen et al., 2015b; Jacks & Cameron, 2003). On the other hand, the construction of people's attitudes towards an advertisement could be more of an affective process, where feelings that are evoked while watching the commercial are directly transferred to their evaluation of the ad (Crano & Prislin, 2006; Kim, Baek, & Choi, 2012;

Sweldens, Van Osselaer, & Janiszewski, 2010). The attitude towards the ad could also be more dependent on affect than on cognition, because people have less time to process argumentation and immediately experience emotion when they are exposed to a commercial. In turn, this could impact consumers' attitudes towards the ad (Derbaix, 1995; Homer & Yoon, 1992; Machleit & Wilson, 1988; Spears & Singh, 2004).

Finally, this study found interesting effects of scepticism towards advertising in general on cognitive and affective resistance strategies and on product attitude, advertisement attitude, and purchase intention. First, as expected (based on Obermiller & Spangenberg, 1998), general scepticism towards advertising evoked cognitive and affective resistance from the respondents. Thus, when consumers were sceptic about the commercial nature and the truthfulness of advertisements in general, this increased their opposition to the commercial, manifested in the use of resistance strategies. Moreover, this scepticism decreased consumers' attitudes towards the product and the advertisement. Thus, the more sceptic consumers were towards advertising in general, the less favourable evaluations they constructed towards the content. Additionally, intentions to purchase the advertised product decreased as the level of general scepticism increased. This has serious consequences for advertisers and marketeers, which will be discussed with the implications of this research.

5.2. Limitations and Future Research

Although the results of this study are very interesting, there are several methodological limitations to the research. First, it assumed respondents' familiarity with the brand Prodent. The questionnaire contained several questions about Prodent, which could not have been answered without knowledge of the brand. Although the familiarity with the advertisement itself was tested, a question about the familiarity with Prodent was lacking. Respondents were not able to skip these questions about Prodent or to answer 'Not applicable' or 'Don't know'. However, none of the respondents commented on this issue at the end of the questionnaire. Therefore, it is assumed that the lack of this question did not have a large impact on the results. Another limitation regarding the survey concerns the gender distribution, as gender was not equally represented within the sample. Of all 265 respondents, approximately three quarters were female, while only one quarter was male. However, this distribution was almost identical to the gender distribution in the actual panel. Therefore, the possibility of a non-response bias related to gender can be excluded. Still, the smaller sample of male respondents could have had implications on the results, as it is not a representative sample for the entire population. However, gender was used as a control variable and was found to not have any effects on the use of resistance strategies, nor on advertisement attitude and purchase intention. A small effect was found on product attitude though: Women were slightly more negative towards the product than men. Fortunately, this effect could be controlled for.

Then, this research could have been limited by the decision to measure resistance strategies as quantitative measures, according to previous research (e.g., Silvia 2006; Van Reijmersdal et al., 2016).

Thus, respondents were asked to what extent they counterargued the information in the advertisement (for cognitive resistance strategies) and the extent to which they felt negative affect while watching the commercial (for affective resistance strategies). They were asked to rate these responses on a 5-point Likert scale. The average scores were then used to determine their level of cognitive resistance and their level of affective resistance. This method was chosen, because it would take less time for respondents to answer these questions, compared to open-ended qualitative questions. A longer questionnaire would not have benefitted the reliability of the survey data. However, several researchers used a qualitative thought-listing method for measuring the use of resistance strategies (e.g., Dillard & Shen, 2005; Jacks & Cameron, 2003; Rains, 2013; Zuwerink Jacks & Devine, 2000). In this case, respondents are asked to self-report their thoughts about the persuasive message, after which the researchers code these cognitions and feelings, creating quantitative categories. As this content analysis method asks respondents to self-report their thoughts, respondents are not influenced by the questions themselves. For example, a respondent could watch the commercial and not feel any irritation. However, when he or is asked to what extent the commercial elicited irritation, this question itself could cause this affect. Therefore, it is proposed that an open-ended question (i.e., a qualitative method) would be better suitable for similar studies to resistance strategies, given that more time is available for the coding process. Moreover, this method requires multiple researchers to ensure coder-reliability.

Thus, future research could use this qualitative method to measure resistance strategies. Moreover, it is advised to repeat this study with different commercials in different product categories. This can have multiple advantages. First, as explained, this could impact the extent to which people feel a threat to their attitudinal freedom. Advertisements that are more obtrusive, giving the viewer the idea that he or she has a low level of self-agency, could evoke a stronger feeling of a threat. In turn, this feeling could affect the level of resistance to the ad. For example, when an advertiser compares its own offers to that of their competitors, while badmouthing about that competitor, this could be perceived as a threat, which in turn could elicit more resistance. Secondly, testing different commercials could provide more information about the effect of the level of personal relevance or level of identification with the commercial on the use of resistance strategies. For example, if the commercial contains characters that are similar to the viewer (e.g., in regard to ethnicity, gender, age, behaviour, or social environment), it could be easier to identify with this character, and thus the commercial. Subsequently, this could result in less resistance. Similarly, the product category itself could be relevant or irrelevant to the viewer. For instance, if a consumer is a vegetarian and watches a commercial promoting meat, this is not relevant to the consumer and could thus elicit more resistance.

Another interesting direction for future research would be to further investigate how individuals' strength of brand preferences relates to their levels of involvement and how they process a commercial's message. According to the ELM, both the central and the peripherical route can lead to persuasion (Meyers-Levy & Malaviya, 1999). Amongst others, the amount of effort that an individual

can bring up to resist changes and the relevance of the message can influence which route is used at that time. Moreover, it is generally assumed that high involvement individuals are more involved in cognitive processing (i.e., the central route), while low involvement individuals are more engaged in affective processing (i.e., the peripherical route) (Wegener, Petty, Smoak, & Fabrigar, 2004). It is also assumed that high involvement individuals are more resistant to attitudinal change compared to low involvement individuals (Wegener et al., 2004). Future research could examine if the strength of someone's brand preferences determines their level of involvement and which route they use to process the persuasive message (i.e., central or peripherical route). In relation to this, it could be researched which resistance strategies people adopt (i.e., cognitive or affective) and the extent to which their initial attitude has or has not been altered. It would then be expected that people with stronger brand preferences are more likely to have a high level of involvement, are more likely to use the central route, adopt more cognitive resistance strategies, and ultimately show less change in their attitudes. Conversely, individuals with weaker brand preferences are expected to be less involved, to use the peripherical route more often, to be more likely to use affective resistance strategies, and to be more prone to attitudinal change.

Related to the distinction of cognitive and affective processing of persuasive messages, it could be interesting to further research the different persuasive tactics used by advertisers. That it, cognition- and affect-based strategies advertisers use to persuade consumers (Haddock, Maio, Arnold, & Huskinson, 2008). For example, incorporating an expert, like a dentist, into a toothpaste commercial could be part of a cognitive strategy to convert a message of trust and expertise, using cognition-based argumentation. On the other hand, using a celebrity endorser to promote a whitening toothpaste is an example of an affect-based persuasive strategy, which makes use of consumers' positive feelings towards that celebrity. These cognition- or affect-based tactics would be very interesting to study in relation to brand preferences. Future research could, for example, question if individuals with lower levels of brand preference are more prone to cognition-based persuasive tactics, while perhaps people with stronger brand preferences are easier to persuade by affect-based tactics. This expectation can be rationalised by the hierarchy of effects model (Lavidge & Steiner, 1961), in which it is argued that the first two stages of persuasion are cognitive phases (i.e., awareness and knowledge about the product) and the following stages are affective phases (i.e., liking and preference of the product).

All in all, even though it had several limitations, this research has demonstrated that resistance strategies do exercise a certain influence on consumers' attitudes and behaviour. Moreover, a prior brand preference has proven to influence consumers in such a way that it can alter their product attitudes, ad attitudes, and purchase intentions. This makes for a very interesting topic to further explore in future research.

5.3. Strengths and Implications

This research has proved to have several strengths. First of all, the 265 valid respondents were recruited via an existing online panel which is part of a market research company. The members of this online community closely represent 'the general Dutch public', making its findings to a large extent generalisable.

Secondly, this research benefitted from the clear and valid questionnaire. All scales were based on previous research and were found to be valid and reliable. An adjustment had to be made for the scale brand preference by disregarding two items. However, the remaining items proved to be very reliable. The other variables did not need alterations and were all internally consistent. Moreover, the clarity of the questionnaire was assessed in a pre-test. Also, by testing the questionnaire in advance, several small adjustments could be made to stimulate the completion of the survey. In the end, by far the largest part of the respondents finished the survey. At the end of the questionnaire, respondents were able to leave comments or questions. None of the respondents reported technical errors or other problems during the completion of the questionnaire. Moreover, many respondents said to have enjoyed filling out the survey. This overall positive response to the questionnaire benefitted the reliability of the research, because it stimulated truthful answering of the questions.

Thirdly, a great strength of this study is that it incorporated many different variables and thereby added depth to the findings. To begin with, resistance strategies were divided into cognitive and affective resistance strategies. As the research found that the use of these strategies can have different effects, it was important to research them both. Moreover, different aspects of consumers' responses were measured. Consumers' attitudes were distinguished between product attitudes and advertisement attitudes. These were also found to be affected differently (e.g., cognitive resistance had a greater impact on product attitude, while affective resistance was of greater influence on advertisement attitude). Thus, measuring them both made it possible to uncover these nuances. Lastly, purchase intention was measured to also examine the impact of brand preference and resistance strategies on the behavioural aspects of consumers' responses. As no direct effect of resistance strategies on purchase intention was found, an alternative model was tested as well. This proved to be an important extra analysis, because it indeed uncovered the indirect effect of resistance strategies on purchase intentions, mediated by advertisement attitude and product attitude, subsequently. This analysis thus provided more depth beyond the initial hypotheses.

The current study and its findings are a substantial contribution to science, because it used a new and, therefore, insightful approach to studying resistance strategies in relation to advertising. Also, the role of initial brand preferences has not received large attention to date. Therefore, not only were the effects of resistance strategies on consumers' attitudes and behaviour tested, but also the possible antecedent of such resistance: brand preference. Thus, the current study was the first to research brand preference as an explaining factor in the use of resistance strategies. In other words, there has been a knowledge gap in how brand preferences could explain consumers' resistance to

persuasion and their attitudes towards the advertised products and ads, as well as their purchase intentions. Although no mediating effect of resistance strategies was found, this research has indicated that prior brand preferences influence consumers' attitudes and behaviour. Thus, very interestingly, consumers' prepositions of brands are an important factor in their evaluations of the ads. No other present studies have been able to find these effects and to research them in combination with resistance strategies.

Next to the contribution to the scientific debate, this research has large implications for advertisers, communication practitioners, and marketeers. First of all, as both cognitive and affective resistance strategies were found to have a negative impact on advertisement and product attitudes, and this subsequently affects purchase intentions, it is advisable to marketing professionals to further investigate these effects to be able to counter them. For example, according to these findings, consumers who use more cognitive or affective resistance strategies also evaluate the advertisement more negatively. In turn, this decreases their attitude towards the product, which then lowers their intention to purchase that product. If consumers do not have intentions to purchase the product, they will not look for the product in a store or make other efforts to purchase it. Consequently, this could have large negative implications for sales. Therefore, it is advised to explore different forms of marketing that activate less resistance than television commercials. This could include marketing tactics such as product placement or influencer marketing, where the commercial nature of the promotion is less obvious. Moreover, social influencers who promote a brand are regarded as more trustworthy (De Veirman, Cauberghe, & Hudders, 2017). In effect, this would not activate consumers' persuasion knowledge, or to a lower extent, resulting in less resistance to the advertising efforts. Moreover, this could tackle the problem of consumers who are sceptical towards advertising in general, which was found to increase resistance and to lower product attitudes, ad attitudes, and purchase intentions. If their persuasion knowledge is less activated, this would make them more receptive to subtle forms of advertising, increasing their willingness to purchase the product. Moreover, Fransen, Verlegh, Kirmani, and Smit (2015) suggest that giving consumers more control over the ads they receive increases a feeling of control and maintenance of one's freedom and, therefore, decreases resistance. This can be accomplished by, for example, asking for permission to show an online ad or by letting consumers decide on which ad they want to see.

Lastly, consumers' initial brand preferences were found to be important in predicting their advertisement attitudes. Thus, advertisements were better evaluated when consumers had positive prepositions about the brand. Moreover, this effect was found for product attitudes and purchase intentions. These findings indicate the importance of prior brand preferences. Thus, marketeers should take notice of differences in consumers with existing preferences for their brand and consumers with weaker or without preferences for their brand. This is because consumers with a lower level of brand preference are much harder to be persuaded than consumers who do prefer the brand. Thus, this group of consumers with weaker preferences might need a different approach that activates less resistance.

Therefore, marketeers could consider other ways to reach and retain this group of consumers, such as product placement and influencer marketing, as named above. Alternatively, consumers who are not familiar with the brand could be initially attracted with positive experiences. For instance, by giving away high 'new customer' discounts or free samples (e.g., a small sample of toothpaste at the dentist). Marketeers could also consider acquainting them with the brand by providing useful information without directly selling the product (e.g., a webpage with information regarding dental care, linked to the toothpaste brand). When consumers have had this experience with the brand for the first time, a loyalty program (e.g., saving for discounts with a customer card) could help retain them or eventually make them loyal customers.

All in all, this research has demonstrated the important role of prior brand preferences when consumers are exposed to advertising. It can also be assumed that customers with a strong preference for a brand are more loyal and therefore harder to convince to switch brands. Moreover, this research has shown how resistance to advertising decreases consumers' attitudes and behaviour.

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Appendix A: English Questionnaire

Screen 1

Dear participant,

Thank you very much for participating in this research! You will be shown a commercial and you will be asked for your opinion about toothpaste brands. Participation takes approximately 7 minutes. Also, you will have a chance at winning a Bol.com gift voucher worth of 10 euros. Please fill in your email address at the end of the questionnaire if you wish to partake.

Important: In order to see the commercial, you need to have a working video and sound system. Please check if the volume of your sound system is on, and/or grab a set of headphones.

This research is part of the master thesis of a student of the Erasmus University Rotterdam. Please be aware that participation is completely voluntary, meaning you are allowed to quit at any time during the questionnaire. Your personal information will be kept strictly confidential and research findings will only be used for academic purposes. Anonymity is thus guaranteed at all time.

If you have any questions during or after your participation, please feel free to contact Camille van Niekerk (camillevn@student.eur.nl).

Good luck!

❍ I understand the above and agree on participating in this research *(select to proceed).*

Screen 2

The next question is asked to determine whether you fit the target group of interest.

(Q1) What is your age?
< Dropdown menu with the following options >
- 17 years or younger
- 18
- 19
- …
- 99
- 100 years or older

[At this point, respondents who are 17 years or younger or will be forwarded to an automated message saying "Thank you for your interest in our study. Regrettably, you do not fit the target group of interest."]

Screen 3

On the next screen, a short test video will start to test whether your video and sound system are working. Please <u>turn on your sound system</u> and <u>pay attention</u> to the video.

Screen 4

< Test video >

Screen 5

(Q2) Can you please confirm whether you were able to see the video and hear the sound?
- Yes, I could see the video and hear its sound.
- No, I could <u>only see</u> the video and <u>not hear</u> its sound.
  [People with this answer are redirected to an automated message saying "Thank you for your interest in this study. Unfortunately, it is not possible to participate at this point, as your sound system does not allow you to hear the upcoming commercial. Please try again with a different system."]
- No, I could <u>not see</u> the video.
  [People with this answer are redirected to an automated message saying "Thank you for your interest in this study. Unfortunately, it is not possible to participate at this point, as your system does not allow you to watch the upcoming commercial. Please try again with a different system."]

Screen 6

(Q3) What did you see in the test video?
- A blue square turning into a mouse.
  [Incorrect answer, these people will be forwarded to an automated message saying "Thank you for your interest in this study. Unfortunately, your answer to the test question was incorrect. Please try again with a different device or video/sound system."]
- A red ball turning into a bird.
- A green triangle turning into a dog.
  [Incorrect answer, these people will be forwarded to an automated message saying "Thank you for your interest in this study. Unfortunately, your answer to the test question was incorrect. Please try again with a different device or video/sound system."]

Screen 7

Thank you for your answers, you can now continue with the survey. Please keep your sound turned on. First, please answer the following two general questions.

(Q4) Could you please specify your gender?
- Male
- Female

- Other

(Q5) What is the highest educational level that you have <u>followed</u>? It does not have to be completed.
- Primary school
- Secondary school, technical/vocational type (VMBO/HAVO)
- Secondary school, university-preparatory type (VWO)
- Technical/vocational degree in tertiary education (MBO)
- Bachelor degree in applied university (HBO)
- Bachelor degree in university (WO)
- Master degree in university (WO)
- PhD, MBA, or other equivalent

Screen 8

This study is about different toothpaste brands.

Could you please indicate to what extent you agree with the following statements?

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
(Q6_1) When I buy toothpaste, it is important for me that I get exactly the right brand	1	2	3	4	5
(Q6_2) The toothpaste brand chosen says a lot about a person	1	2	3	4	5
(Q6_3) I feel well informed about toothpaste	1	2	3	4	5

Screen 9

Which toothpaste brand(s) from the list below would have your preference? You can check multiple answers.

	Preferred brand(s)
(Q7_1) Aquafresh	1
(Q7_2) Colgate	1

(Q7_3) Elmex	1
(Q7_4) Oral-B	1
(Q7_5) Paradontax	1
(Q7_6) Prodent	1
(Q7_7) Sensodyne	1
(Q7_8) Zendium	1
(Q7_9) Private label / Other brand	1
(Q7_10) No preference	1

[When 'No preference' was selected, no other choices could be selected]

Screen 10

Could you please indicate to what extent you agree with the following statements?

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
(Q8_1) I am interested in trying other brands	1	2	3	4	5
(Q8_2) I intend to replace my toothpaste brand with other brands	1	2	3	4	5

Screen 11

You will now randomly be assigned to one of the aforementioned toothpaste brands. Please click "Next" to continue.

Screen 12

You have been assigned to: <u>Prodent</u>.
[In reality everyone is assigned to Prodent]

Could you please indicate to what extent you agree with the following statements?

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
(Q9_1) I think Prodent is superior to other competing brands	1	2	3	4	5
(Q9_2) I prefer Prodent	1	2	3	4	5
(Q9_3) When considering purchasing toothpaste, I would consider Prodent first	1	2	3	4	5

Screen 13

Next, you will see a television commercial. Please pay attention, because afterwards, you will be asked for your opinion about the commercial.

Screen 14

Please click the "play" button to start the video.

[Prodent commercial (see screenshot) and timer of 0:30]

Please mind that the "next" button appears once the video has ended.

Screen 15

(Q10) Had you seen this commercial before?
- Yes
- No
- Not sure

Screen 16

Please keep the Prodent commercial in mind while answering the upcoming questions.

Please indicate to what extent you agree with the following four statements.

"While watching, I … the information in the commercial."

	Strongly disagree	Disagree	Disagree nor agree	Agree	Strongly agree
(Q11_1) Contested	1	2	3	4	5
(Q11_2) Refuted	1	2	3	4	5
(Q11_3) Doubted	1	2	3	4	5
(Q11_4) Countered	1	2	3	4	5

Screen 17

Similarly, could you please indicate to what extent you agree with the following four statements?

"While watching the commercial, I felt …"

	Strongly disagree	Disagree	Disagree nor agree	Agree	Strongly agree
(Q12_1) Angry	1	2	3	4	5
(Q12_2) Good	1	2	3	4	5
(Q12_3) Irritated	1	2	3	4	5
(Q12_4) Happy	1	2	3	4	5
(Q12_5) Comfortable	1	2	3	4	5
(Q12_6) Annoyed	1	2	3	4	5
(Q12_7) Nervous	1	2	3	4	5

(Q12_8) Optimistic	1	2	3	4	5

Screen 18

Now, please indicate how you evaluate <u>the commercial</u> you have just seen using the following words:

(Q13_1)	1 Bad	2	3	4	5 Good
(Q13_2)	1 Dislike	2	3	4	5 Like
(Q13_3)	1 Not irritating	2	3	4	5 Irritating
(Q13_4)	1 Uninteresting	2	3	4	5 Interesting

Screen 19

Similarly, please indicate how you evaluate <u>the advertised product</u> (Prodent toothpaste) using the following words:

(Q14_1)	1 Bad	2	3	4	5 Good
(Q14_2)	1 Uninteresting	2	3	4	5 Interesting
(Q14_3)	1 Unfavourable	2	3	4	5 Favourable
(Q14_4)	1 Pleasant	2	3	4	5 Unpleasant

Screen 20

You have almost reached the end of the questionnaire!
Could you please indicate to what extent you agree with the following statements?

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
(Q15_1) I want to buy Prodent	1	2	3	4	5
(Q15_2) I intent to buy Prodent	1	2	3	4	5

(Q15_4) I will look for Prodent in a store	1	2	3	4	5

Screen 21

This final question is about advertising in general.
Could you please indicate to what extent you agree with the following statements?

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
(Q16_1) We can depend on getting the truth in most advertising	1	2	3	4	5
(Q16_2) Advertising is a reliable source of information about the quality and performance of products	1	2	3	4	5
Q16_3) In general, advertising presents a true picture of the product being advertised	1	2	3	4	5
Q16_4) I feel I've been accurately informed after viewing most advertisements	1	2	3	4	5
Q16_5) Most advertising provides consumers with essential information	1	2	3	4	5

Screen 22

(Q17) You have now reached the end of the questionnaire. Thank you for your time and effort, your help is highly appreciated! If you have questions or comments about this questionnaire or research, please list them below.

[Text box]

(Q18) If you wish to have a chance at winning the Bol.com gift voucher worth of 10 euros, please fill in your email address below. Your email address will not be used for any other purposes and will not be linked to your previous answers.

[*Text box*]

Please press "Next" to store all your answers.

Appendix B: Dutch Questionnaire

Scherm 1

Beste respondent,

Hartelijk bedankt voor uw deelname aan dit onderzoek! U krijgt straks een reclame te zien en er zal naar uw mening over tandpastamerken gevraagd worden. Deelname duurt ongeveer 7 minuten. Overigens maakt u kans op een Bol.com cadeaubon t.w.v. 10 euro. Vul daarvoor aan het einde van de vragenlijst uw emailadres in.

Let op: om de reclame te kunnen zien, heeft u een werkend video- en geluidsysteem nodig. Controleer alstublieft of uw geluid aan staat en/of gebruik een koptelefoon.

Dit onderzoek is onderdeel van de masterscriptie van een student aan de Erasmus Universiteit Rotterdam. Deelname is volledig vrijwillig en het is dus altijd toegestaan om de vragenlijst te beëindigen. Uw persoonlijke gegevens worden strikt vertrouwelijk behandeld en de uitkomsten van het onderzoek zullen alleen voor academische doeleinden gebruikt worden. Anonimiteit is te allen tijde gegarandeerd.

Als u tijdens of na deelname vragen heeft, kunt u altijd contact opnemen met Camille van Niekerk (camillevn@student.eur.nl).

Succes!
- Ik begrijp bovenstaande informatie en ga akkoord met de deelname aan dit onderzoek *(selecteer om door te gaan).*

Scherm 2

De volgende vraag wordt gesteld om te bepalen of u binnen de doelgroep van dit onderzoek valt.

(Q1) Wat is uw leeftijd?
< Dropdown menu met de volgende opties >
- 17 jaar of jonger
- 18
- 19
- …
- 99
- 100 jaar of ouder

[Hier worden respondenten die 17 jaar of jonger zijn doorgestuurd naar een automatisch bericht met de tekst "Bedankt voor uw interesse in dit onderzoek. Helaas valt u buiten de doelgroep."]

Scherm 3

Op het volgende scherm zal u een korte test video zien om te controleren of uw video- en geluidsysteem werken. <u>Zet alstublieft uw geluid aan</u> en <u>kijk aandachtig</u> naar de video.

Scherm 4

< Test video >

Scherm 5

(Q2) Kon u de test video zien en horen?
- Ja, ik kon de video zien en horen.
- Nee, ik kon de video <u>wel zien</u>, maar <u>niet horen</u>.
  [Mensen met dit antwoord worden doorgestuurd naar een automatisch bericht met de tekst "Bedankt voor uw interesse in dit onderzoek. Helaas is het op dit moment niet mogelijk om deel te nemen, omdat uw geluidsysteem de komende reclame niet ondersteunt. Probeer het later alstublieft nog eens met een ander system."]
- Nee, ik kon de video <u>niet zien</u>.
  [Mensen met dit antwoord worden doorgestuurd naar een automatisch bericht met de tekst "Bedankt voor uw interesse in dit onderzoek. Helaas is het op dit moment niet mogelijk om deel te nemen, omdat uw systeem de komende reclame niet ondersteunt. Probeer het later alstublieft nog eens met een ander systeem."]

Scherm 6

(Q3) Wat zag u in de test video?
- Een blauw vierkant dat in een muis verandert.
  [Onjuist antwoord, deze mensen worden doorgestuurd naar een automatisch bericht met de tekst "Bedankt voor uw interesse in dit onderzoek. Helaas was uw antwoord op de testvraag onjuist. Probeer het later alstublieft nog eens met een ander apparaat of video- of geluidsysteem."]
- Een rode cirkel die in een vogel verandert.
- Een groene driehoek die in een hond verandert.
  [Onjuist antwoord, deze mensen worden doorgestuurd naar een automatisch bericht met de tekst "Bedankt voor uw interesse in dit onderzoek. Helaas was uw antwoord op de testvraag onjuist. Probeer het later alstublieft nog eens met een ander apparaat of video- of geluidsysteem."]

Scherm 7

Bedankt voor uw antwoorden, u kunt nu verder met de vragenlijst. Houd uw geluid alstublieft aan. Er worden eerst twee algemene vragen gesteld.

(Q4) Wat is uw geslacht?
- Man
- Vrouw
- Anders

(Q5) Wat is uw hoogst <u>gevolgde</u> opleiding? Deze hoeft u dus niet te hebben afgerond.
- Basisschool
- VMBO/HAVO of soortgelijk
- Atheneum/Gymnasium (VWO)
- Middelbaar beroepsonderwijs (MBO)
- Hoger beroepsonderwijs (HBO)
- Bachelor in wetenschappelijk onderwijs (WO)
- Master in wetenschappelijk onderwijs (WO)
- PhD, MBA of soortgelijk

Scherm 8

Dit onderzoek gaat over verschillende tandpastamerken.

Kunt u aangeven in hoeverre u het eens bent met de volgende stellingen?

	Sterk mee oneens	Oneens	Noch mee eens, noch mee oneens	Eens	Sterk mee eens
(Q6_1) Wanneer ik tandpasta koop, is het belangrijk voor me dat ik precies het goede merk koop	1	2	3	4	5
(Q6_2) Welk merk tandpasta iemand kiest, zegt veel over een persoon	1	2	3	4	5
(Q6_3) Ik voel me goed geïnformeerd over tandpasta	1	2	3	4	5

Scherm 9

Welk(e) tandpastamerk(en) van de onderstaande lijst heeft/hebben uw voorkeur? U mag meerdere antwoorden aanvinken.

	Voorkeur voor merk
(Q7_1) Aquafresh	1

(Q7_2) Colgate	1
(Q7_3) Elmex	1
(Q7_4) Oral-B	1
(Q7_5) Paradontax	1
(Q7_6) Prodent	1
(Q7_7) Sensodyne	1
(Q7_8) Zendium	1
(Q7_9) Huismerk / Ander merk	1
(Q7_10) Geen voorkeur	1

[Bij het selecteren van 'Geen voorkeur' was het niet mogelijk om andere antwoorden aan te vinken]

Scherm 10

Kunt u aangeven in hoeverre u het eens bent met de volgende stellingen?

	Sterk mee oneens	Oneens	Noch mee eens, noch mee oneens	Eens	Sterk mee eens
(Q8_1) Ik ben geïnteresseerd in het proberen van andere merken	1	2	3	4	5
(Q8_2) Ik ben van plan mijn tandpastamerk te vervangen door andere merken	1	2	3	4	5

Scherm 11

U wordt nu willekeurig aan een van de eerder genoemde tandpastamerken toegewezen. Klik op "Volgende" om verder te gaan

Scherm 12

U bent toegewezen aan: <u>Prodent</u>.
[Eigenlijk wordt iedereen toegewezen aan Prodent]

Kunt u aangeven in hoeverre u het eens bent met de volgende stellingen?

	Sterk mee oneens	Oneens	Noch mee eens, noch mee oneens	Eens	Sterk mee eens
(Q9_1) Ik vind dat Prodent superieur is aan andere concurrerende merken	1	2	3	4	5
(Q9_2) Ik heb een voorkeur voor Prodent	1	2	3	4	5
(Q9_3) Wanneer ik tandpasta ga kopen, zou ik Prodent als eerste overwegen	1	2	3	4	5

Scherm 13

U krijgt nu een reclame te zien. <u>Kijk alstublieft aandachtig</u>, want hierna zal er naar uw mening over de reclame gevraagd worden.

Scherm 14

Klik op de "play" knop om de video te starten.

[Prodent reclame (zie screenshot) en timer van 0:30]

De "Volgende" knop verschijnt na afloop van de video.

Scherm 15

(Q10) Had u deze reclame al eens eerder gezien?
- Ja
- Nee
- Niet zeker

Scherm 16

Houd u alstublieft de Prodent reclame in gedachte bij het beantwoorden van de volgende vragen.

Kunt u aangeven in hoeverre u het eens bent met de volgende vier stellingen?

"Tijdens het kijken, …"

	Sterk mee oneens	Oneens	Noch mee eens, noch mee oneens	Eens	Sterk mee eens
(Q11_1) …betwiste ik de informatie in de reclame	1	2	3	4	5
(Q11_2) …wees ik de informatie in de reclame af	1	2	3	4	5
(Q11_3) …betwijfelde ik de informatie in de reclame	1	2	3	4	5
(Q11_4) …sprak ik de informatie in de reclame tegen	1	2	3	4	5

Scherm 17

Kunt u op dezelfde manier aangeven in hoeverre u het eens bent met de volgende vier stellingen?

"Tijdens het kijken naar de reclame, voelde ik me …"

	Sterk mee oneens	Oneens	Noch mee eens, noch mee oneens	Eens	Sterk mee eens
(Q12_1) Boos	1	2	3	4	5
(Q12_2) Goed	1	2	3	4	5

(Q12_3) Geïrriteerd	1	2	3	4	5
(Q12_4) Blij	1	2	3	4	5
(Q12_5) Comfortabel	1	2	3	4	5
(Q12_6) Geërgerd	1	2	3	4	5
(Q12_7) Nerveus	1	2	3	4	5
(Q12_8) Optimistisch	1	2	3	4	5

Scherm 18

Kunt u aangeven hoe u de reclame die u zojuist gezien heeft zou beoordelen aan de hand van de volgende woorden?

(Q13_1)	1 Slecht	2	3	4	5 Goed
(Q13_2)	1 Niet leuk	2	3	4	5 Leuk
(Q13_3)	1 Niet irritant	2	3	4	5 Irritant
(Q13_4)	1 Oninteressant	2	3	4	5 Interessant

Scherm 19

Kunt u nu op dezelfde manier aangeven hoe u het geadverteerde product (Prodent tandpasta) zou beoordelen aan de hand van de volgende woorden?

(Q14_1)	1 Slecht	2	3	4	5 Goed
(Q14_2)	1 Oninteressant	2	3	4	5 Interessant
(Q14_3)	1 Ongunstig	2	3	4	5 Gunstig
(Q14_4)	1 Onaangenaam	2	3	4	5 Aangenaam

Scherm 20

U bent bijna aan het einde van de vragenlijst gekomen!
Kunt u aangeven in hoeverre u het eens bent met de volgende stellingen?

	Sterk mee oneens	Oneens	Noch mee eens, noch mee oneens	Eens	Sterk mee eens
(Q15_1) Ik wil Prodent kopen	1	2	3	4	5
(Q15_2) Ik heb de intentie om Prodent te kopen	1	2	3	4	5
(Q15_3) Ik zal naar Prodent zoeken in een winkel	1	2	3	4	5

Scherm 21

Deze laatste vraag gaat over reclame in het algemeen.
Kunt u aangeven in hoeverre u het eens bent met de volgende stellingen?

	Sterk mee oneens	Oneens	Noch mee eens, noch mee oneens	Eens	Sterk mee eens
(Q16_1) We kunnen erop vertrouwen dat we de waarheid krijgen in de meeste reclames	1	2	3	4	5
(Q16_2) Reclame is een betrouwbare bron van informatie over de kwaliteit en prestaties van producten	1	2	3	4	5
Q16_3) Over het algemeen schetst reclame een echt beeld van het geadverteerde product	1	2	3	4	5
Q16_4) Ik voel me juist geïnformeerd na het zien van de meeste reclames	1	2	3	4	5
Q16_5) De meeste reclame voorziet consumenten van essentiële informatie	1	2	3	4	5

Screen 22

(Q17) U heeft nu het einde van de vragenlijst bereikt. Hartelijk bedankt voor uw tijd en moeite, uw hulp wordt erg gewaardeerd! Als u nog vragen of opmerkingen over deze vragenlijst of het onderzoek heeft, kunt u deze hieronder achterlaten.

[Tekst vak]

(Q18) Indien u kans wilt maken op de Bol.com cadeaubon t.w.v. 10 euro, kunt u hier uw emailadres achterlaten. Uw emailadres wordt niet voor andere doeleinden gebruikt en wordt niet herleid tot uw voorgaande antwoorden.

[Tekst vak]

Klik alstublieft op "Volgende" om uw antwoorden op te slaan.

Appendix C: Factor and Reliability Analyses

Table C.1

Factor and Reliability Analyses for Scale for Cognitive Resistance Strategies ($N = 265$)

Item	*Cognitive resistance strategies*
While watching, I … the information in the commercial	
Contested	.86
Refuted	.89
Doubted	.88
Countered	.88
R^2	.77
Eigenvalue	3.10
Cronbach's α	.90
M	2.45
SD	0.79

Table C.2

Factor and Reliability Analyses for Scale for Affective Resistance Strategies ($N = 265$)

Item	*Affective resistance strategies*
While watching the commercial, I felt …	
Angry	.84
Irritated	.87
Annoyed	.90
Nervous	.83
R^2	.74
Eigenvalue	2.94
Cronbach's α	.88
M	1.81
SD	0.75

Table C.3

Factor and Reliability Analyses for Scale for Product Attitude ($N = 265$)

Item	Product attitude
Bad–Good	.92
Uninteresting–Interesting	.91
Unfavourable–Favourable	.96
Unpleasant–Pleasant	.95
R^2	.87
Eigenvalue	3.50
Cronbach's α	.95
M	3.60
SD	0.90

Table C.4

Factor and Reliability Analyses for Scale for Advertisement Attitude ($N = 265$)

Item	Advertisement attitude
Bad–Good	.87
Dislike–Like	.90
Not irritating–Irritating (r)	.82
Uninteresting–Interesting	.82
R^2	.73
Eigenvalue	2.91
Cronbach's α	.87
M	3.53
SD	0.92

Table C.5

Factor and Reliability Analyses for Scale for Purchase Intention ($N = 265$)

Item	Purchase intention
I want to buy Prodent	.96
I intend to buy Prodent	.97
I will look for Prodent in a store	.96
R^2	.93
Eigenvalue	2.77
Cronbach's α	.96
M	2.77
SD	1.05

Table C.6

Factor and Reliability Analyses for Product Category Involvement ($N = 265$)

Item	Product category involvement
When I buy toothpaste, it is important for me that I get exactly the right brand	.74
The toothpaste brand chosen says a lot about a person	.75
I feel well informed about toothpaste	.76
R^2	.57
Eigenvalue	1.70
Cronbach's α	.61
M	3.16
SD	0.75

Table C.7

Factor and Reliability Analyses for Scale for Scepticism Towards Advertising ($N = 265$)

Item	Scepticism towards advertising
We can depend on getting the truth in most advertising (r)	.88
Advertising is a reliable source of information about the quality and performance of products (r)	.91
In general, advertising presents a true picture of the product being advertised (r)	.87
I feel I've been accurately informed after viewing most advertisements (r)	.90
Most advertising provides consumers with essential information (r)	.87
R^2	.79
Eigenvalue	3.93
Cronbach's α	.93
M	3.36
SD	0.88

Appendix D: Alternative Regression Analyses

Table D

Alternative Regression Models for Consumers' Attitudes and Behaviour ($N = 265$)

	Advertisement attitude – Model 6	Product attitude – Model 7	Purchase intention – Model 8
Constant	3.54	2.48	0.60
Brand preference	.15**	.10*	.65***
Cognitive resistance strategies	-.18**	-.21***	-.01
Affective resistance strategies	-.35***	.03	-.01
Advertisement attitude	-	.55***	.11
Product attitude	-	-	.13*
Control variables			
Age	-.05	.02	.03
Gender (0 = male; 1 = female)	-.05	-.07	.04
Educational level	.02	.02	.03
Familiarity with the ad (0 = no; 1 = yes)	.07	.09*	-.00
Product category involvement	.15**	-.01	.09*
Scepticism towards advertising	-.21***	-.15**	.-13**
R^2	.45	.64	.66

Notes. The presented values are standardised regression coefficients. Significance levels: * $p < .05$ ** $p < .01$ *** $p < .001$ (2-tailed).